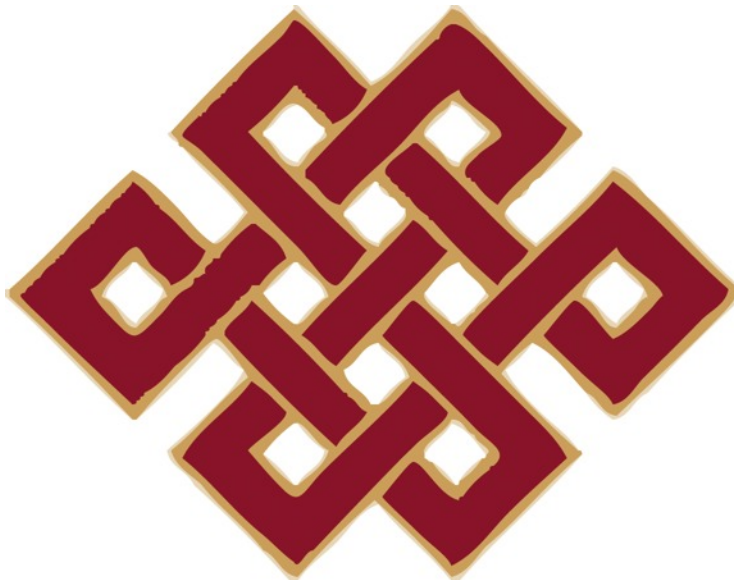


The Noetic Revolution
Toward an Integral Science of Matter, Mind and Spirit
Selected Chapters

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**Dedicated to
Carol A. Hoy
(Gendun Drolma)
and to
the ultimate happiness
of all beings**

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The characters for "beginner's mind" in calligraphy by Shunryu Suzuki

Introduction

The Emerging Noetic Revolution

For no light matter is at stake. The question concerns the very way
that human life is to be lived.

—Plato (*The Republic, Book I*)

On the cusp of the 3rd century CE two great scholar-masters—Nagarjuna in the East and Plotinus in the West—began the noetic nondual knowledge revolution for our species that is just now re-emerging as the new Noetic Revolution of the 21st century. (Nondual is subject/object unity, *advaya*/not two/not one; nondual wisdom is *noēsis/noetic* knowledge with no essential subject/object, matter/spirit separation.) All such societal and cultural knowledge relationships are necessarily subsumed and embraced by a vast interdependent matrix of relationship, an unbounded whole—by whatever name—that is nondual ultimate reality itself, the inherent basal source condition of all relative-conventional reality that arises therein.

As the developmental dialectic of humanity's emotional, spiritual and ethical evolution proceeds, and the ontological estrangement of the present Modern worldview of Scientific Materialism and the nihilism of its Postmodern reaction recedes, this incipient global noetic reformation in religion, science and culture has gently reintroduced to humankind an interior, integral and transpersonal knowledge paradigm, discoverable in part through the contemplative injunctions of the esoteric and nondual knowledge paths of our Premodern wisdom traditions (Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam); this all toward discovering or uncovering inherent meaning, even ultimate meaning in our lives.

What is the meaning of life in this constant presence of our death? What are the causes of human happiness? Why do we refuse to be happy? What shall we do with this precious life we've been given? The big questions ask of our origin, our identity and our destiny. Such ultimate questions orient us toward the rediscovery and recovery of the ineffable mystery of both relative and ultimate meaning and happiness for one who considers them. We shall herein consider some of them.

Some of our Premodern primordial wisdom traditions teach of the profound knowledge/wisdom dialectic of the Two Fundamental Truths—our two ways of being here—the social interobjective, and cultural intersubjective worlds of Relative Truth (*samvriti satya*/form) of arising finite conventional spacetime reality, and then the perfectly subjective Ultimate Truth (*paramartha satya*/), the infinite primordial nondual ultimate reality ground that transcends, yet embraces objective reality, and in which this all arises, descends and appears (involution). Our lives are an opportunity and a choice to return to this basal ground (evolution). Thus our human condition is this: we must live in and balance these two worlds—relative/objective and ultimate/subjective—at once!

Thus, the perennial dilemma for science, spirituality and culture is the resolution of this invidious apparent duality, the relationship of our objective finite material existence—body and mind—to perfectly subjective all-embracing nondual Spirit, infinite ground in which everything arises and participates. Such is the “problem” of soteriology, the individual and thus collective challenge of human psycho-spiritual awakening/liberation/enlightenment

(*bodhi*).

I shall herein argue that the rigorous cognitive coupling of our objective and scientific understanding with the deep subjective realization of this momentous principle of the indivisible unity and coalescent dimensional interdependence of these two seemingly incommensurable paradigms—these perennial Two Truths—is the inherent treasure of mind, our heart’s desire, and both origin and aim of all of our happiness seeking strategies.

To this purpose I shall enlist, however cursorily, for ultimate soteriological as well as polemical and pedagogical ends, the profound intertextual epistemological dialectics—both conceptual critical analysis and contemplative mindfulness practice—of the great centrist Buddhist middle way *Prasangika Madhyamaka* philosophy of Nagarjuna, Chandrakirti and Tsongkhapa, and their luminous predecessors, Longchen Rabjam (Longchenpa) and Ju Mipham.

With this dialectal Buddhist Mahayana sutra foundation we will then glimpse the non-dialectical tantric view of the directly present immanent unity of objective material form (matter), and the ultimate perfectly subjective sphere of *Dzogchen*, the Great Perfection. Thus shall we engage the inherently vexed perennial duality that is the Two Truths of objective form/and subjective emptiness/spirit, remembering all the while Buddhist nondual wisdom that “form is emptiness, emptiness is form.” Knowing subject and perceived object, while appearing separate, are “always already” a prior ontological unity.

We shall then briefly explore, to the same purpose, an important bit of 20th century intellectual history, namely, an urgent Postmodern “ontological relativity” as it arises in Relativistic Quantum Field Theory—QED/QCD—of the Standard Model of recent physics and cosmology. Following this is an examination of the logical and empirical possibility (or impossibility) of a physical “Theory of Everything.” It is here that I shall criticize the separative, destructive aspect of Modernist determinist mechanistic Scientific Materialism. We shall, in this connection, re-visit the Postmodern work of Bohr, Gödel, Quine, Derrida, Bell, Kuhn and a promising new post-Standard Model anti-realist physics from a philosophically recalcitrant Stephen Hawking.

A robust, integral noetic science of matter, mind and spirit must utilize the phenomenological “doublet” of both objective third person exterior exoteric quantitative Science, and first person subjective interior esoteric qualitative spirit/value methodologies. Such a noetic approach is required if we are to guide our evolution—preconscious, conscious, and supraconscious—individually and thereby collectively, through the ascending life stages of human psycho-spiritual development. The end point of this evolutionary process is nothing less than the awakening/liberation/enlightenment of our species; which is to say, in due course, the long deferred nativity of a bright new species. I have here and elsewhere referred to this evolutionary reformation in religion, science and culture as the emerging Noetic Revolution of the 21st century. This process shall herein be our ultimate concern.

Hence, such an integral, noetic science requires the perennial cognitive dialectic (*pramana*) of both objective reason (*vikalpa, anumana*), and subjective yogic direct perception (*pratyaksa*) of and meditation (*bhavana*) upon our indwelling inherent (*sahaja*) nondual primordial awareness wisdom (innate *gnosis, sahajajnana, yeshe*). As suggested above, these two intertextual complementary knowledge paradigms—these perennial “Two Truths”,

objective relative and subjective ultimate—together enhance the path to that soteriological realization of our "supreme identity" with the primordial, perfectly subjective basal ultimate reality in which, or in whom all descending spacetime relative things and beings arise and participate.

On the accord of our wisdom traditions this realization—and its spontaneous effortless actualization in kind compassionate conduct—represents our relative, but also our ultimate individual and collective meaning that is the ultimate great happiness (*mahasuka*, *paramananda*, *eudaemonia*, *beatitudo*), the happiness that cannot be lost.

Let us now briefly engage these two ostensibly incommensurable knowledge paradigms.

I

Modernity and Its Discontents

Modernity: The Tyranny of Objectivity

Postmodern prelude: seeing is believing. Both the Eastern and Western intellectual traditions have largely failed to understand that there are realms of knowledge and meaning that lie prior to the natural limit of human reason and belief. The exoteric conceptual semantic topology of language with its intersubjective, deep background cultural assumptions, embedded as they are in our habitual, preconscious conceptual and belief systems reify what we perceive and know. The great truth of Postmodernity is that our realities arise not pre-given but as intersubjective cultural webs of experience. Can we step outside this cultural “web of belief?” Yes, with a little practice, through esoteric and nondual “vertical spiritually empirical” (yogic) contemplative technologies of the noetic “new science of consciousness,” as we shall see. Now there is a cognitive precursor to this noetic process that cuts through our attachment and defences of our unexamined beliefs that so limit our psychospiritual creativity and growth. It is “*shoshin*,” the beginner’s mind wherein we “bracket” (*epoché*) or place in abeyance these concepts and beliefs so as to be open to receive new truths prior to filtering them through the fearful defensive reticulum of our present “web of belief.” This may be done—with practice—almost moment to moment and bestows a great freedom *from* the limits of belief that is also a freedom *to* grow intellectually, emotionally and spiritually.

Things appear in the world not as they actually are, but as we are at the moment of their arising. Einstein to Heisenberg: “What we see depends on the theories we use to interpret our observations.” Theory (concept and belief) defines and determines what we observe. Our semiotic conceptual structures do not directly correspond to any external, independent reality. The cognitive sciences, consciousness studies and philosophy of mind agree: “Perception is...an instrument of the world as we have structured it by our expectancies” (J. Brunier 1986). “...The appropriate description for a given input is highly dependent on the way the perceiver chooses to process it...” (J.M. Wilding 1982). *Thus, our conscious experience is dictated in large part by our “cognitive unconscious,” that is, our preconscious, intersubjective deep cultural background concepts, beliefs and expectations. We think and believe what we are culturally conditioned to think and believe.* Our knowledge is perspectival. Empirical observation statements are theory-dependent. “All raw data are theory-laden” (Quine), that is, theories are underdetermined by their actual evidential data. A theory-laden statement is meaningful only in the context of its theoretical presuppositions. If our statements are mostly theory-laden, then the “myth of the given”—that immediate sense experience gives us an empirical certainty that can provide a foundation for science—is false. Our observation, perception, conception and belief are infected with the unconscious deep subjective cognitive baggage of the “metalanguage” conceptual belief matrix of the cultural tradition in which we are embedded. As the greatest American philosopher C.S. Peirce observed, “perception is semiotic.” Perceptual experience is not real, not simply pre-given, but constructed and constituted by our intersubjective cognitive unconscious cultural background. Objective perception is an interpretation, a perspective (Quine’s ontological relativity, p. 16 ff). Just so, as Ken Wilber and Keith Dowman have pointed out, the “truths”

and the meaning of meditative and contemplative subjective experience are not directly given but are also semiotic elaborations of the deep background cultural packaging of the yogin's subjective realities. Gradualist meditation is semiotic and dualistic. It is oriented toward a future goal. And that's OK. (Appendix D on "non-meditation"). If perception and conception are perspectival, then in the West this preconscious mindset is Modernist Realism/Materialism. In the East it is Premodern Buddhist and Hindu Subjective Idealism.

Well, how do we derive this semantic meaning from the mere logical syntax (brain or computer) of our languages? We can't explain how, but the human brain does it all the time. Can a machine ever do it? Penrose and Searle say no (Searle 1997, Penrose 1994). Strong AI (artificial intelligence) and Turing says yes. More on this below.

It has now become very difficult to argue that we can know the world, as it appears to our senses, objectively. The perceiving, conceptualizing knowing subject is always part of the knowledge equation. It seems that perhaps the knowing subject and the separate object is a nondual (*advaya*/not two) ontological unity after all.

The very notion of unmediated observation now seems highly questionable. In light of such discoveries, the phrase 'seeing is believing' takes on new meaning: the very act of observation already entails a belief system that is not based simply on some hypothetical bare data. All of our observations are theory laden, and none correspond in any straight-forward way to objective objects existing in their own right independent of our experience.

—B. Alan Wallace (1996)

The post-Kantian Modern epistemological turn to the *individual* subject has now turned to Postmodern collective/*cultural* intersubjectivity. This advent of a new awareness of the inherent constitutive deep cultural intersubjectivity of our cognitive life is the good news of the Postmodern reformation. Alas, it's a mixed bag, as we shall see.

Modernity: *Novum Organon*, a new method. "All that can be shaken shall be shaken" (Dōgen). The Brave New World that is the Modernist conceptual and intellectual revolution came to valorize our reason and rationality over the presumptive authority of the past, namely, the Premodern Greek Classical Tradition and the Christian Age of Faith. The prevailing Aristotelian Scholasticism—that cognitively comforting synthesis of Aristotle's realist metaphysics with Christian theology (the *Disputatio*)—was supplanted by the new scientific method (Baconian/Newtonian induction replaces Cartesian deduction) in the most profound cognitive revolution in human history. This consciousness milestone became the 17th and 18th century European Enlightenment and cultural and scientific revolution of Bacon, Galileo, Descartes, Newton and Locke, and the very foundation of Modernity and the Modern worldview.

This objectivist, materialist ideology has become the common belief system, the "*langue*" or "background theory" of the Western physicalist materialist paradigm (epistemological Realism, the "myth of the given," scientific imperialism/Scientism) and thereby the prevailing ideology of the Western mind. This cast of mind is descended from the unproven and

unprovable metaphysical assumption of Monistic Physicalism (Materialism), the ontology that the whole of reality is merely and only physical. Why must our ontology of nature be physicalist? Where's the proof? Isn't Physicalism merely a belief, a metaphysical presumption and habit of mind (Appendix B)? This monolithic Western epistemic paradigm—our culture *imaginaire*—whose roots we find in the dualistic physicalist/realist ontology of pre-Socratic atomists, Aristotle, the Modernist mechanics of Descartes, Copernicus, Galileo and Newton (not to mention Buddhist *Abidharma* and Dualist *Vedanta*), assumes the existence of an objective, separate, independently existing reality (Scientific Realism), a “real world out there” (RWOT) of separate, independently existing exclusively physical objects (materialism/objectivism) given to sense perception—Wilfrid Sellars “myth of the given”—through the medium of “sense data” (*hyle*), independent, distinct and separate from the consciousness of perceiving, knowing subjects. Again, this myth presumes that mere sense experience may serve as a realist epistemological foundation for objectively certain deductive knowledge. Philosophers call this Foundational Realism. This is “Descartes’ dream” that has become the infernal Cartesian “quest for certainty” and necessity—that epistemic illusion of Modernity that resulted in a negative reactive Postmodern skepticism and nihilism. The myth of the given is the antithesis of Postmodern cultural intersubjectivity.

Most philosophers of science, mind and religion have rejected the myth of the given, at least ostensibly, but seem to miss the Postmodern truth that our deep cultural background preconscious intersubjective “web of belief” is profoundly constitutive of our ontic pretensions as to the nature of reality and the mind that would perceive, conceive and know it. Thus is Scientific Realism/Materialism the widely held “cognitive unconscious” or preconscious belief system of the Naïve Realism of most physical and social scientists, academicians and the exoterically oriented massmind of the Western multitudes. Such narrowly representational cognition can be destructively dualistic—even for the thinking classes—for it inserts a sensory medium (Rorty’s “mirror of nature”) between appearance and reality that essentially splits the knowing, perceiving subject from the object known thereby undermining subjective, introspective exoteric and esoteric noetic knowledge and spirituality, the very path to the realization of the higher truth of the symbiosis, and yes, the prior unity of knowing subject and the object known, of objective matter and subjective mind/spirit. This inherent nondual prior primordial unity of our perennial Great Wisdom Tradition is reduced by physicalist Scientific Materialism (Scientism) to mere external physical matter (Scientific Reductionism). The vast multidimensional Pythagorean *Kosmos* is reduced to the merely physical cosmos of Modern physics. “And thus has philosophy been ruined” (Whitehead).

In any case, reality is not simply pre-given. Rather, it is constituted by our sociocultural perspectival “web of belief” (Quine), or “form of life” (Wittgenstein), or “lifeworld” (Habermas), as we have seen. Is this myth a big deal? Yes and no. From the view of Relative Truth (*samvrti satya*) it is a cause of the ignorance (*avidya*) that results in suffering. From the view of Ultimate Truth (*paramartha satya*) our liberation from ignorance “is already accomplished” deep within us, at the heart of each human being. “No problem at all.” How do we awaken to this “always already” present presence of love and wisdom? Well yes, it takes a little gradualist practice. Moreover, as the ostensibly logocentric absolute realities—Brahman, Tao, emptiness, Dharmakaya—of our Primordial Wisdom Tradition are “given” to a yogin in

the spacetime dimension of Relative Truth, these realities are viewed to be intrinsically absent any essential or inherent given existence. They are not posited by the traditions, particularly Buddhist *Madhyamaka*, as metaphysical ontic entities ultimately, but merely relative-conventionally. And these are the Two Truths: Ultimate Truth, the perfectly subjective nondual Reality, and then its conceptual unpacking in the intersubjective, perspectival, conventional spacetime dimension of Relative Truth.

As to the religious consciousness, Scientism has reduced the seed of truth in religion—subjective indwelling spirit/spirituality—that is our inherent unity with godhead, to a merely conceptual objective attempt to possess God; to objectify, anthropomorphize and thereby idolize and own the perfect subjectivity of a transconceptual, non-theistic, non-spiritual, nondual godhead, the very sourceground (*cittadhatu, shunyata, Tao*) in which or in whom we and everything else arises. How do we possess or grasp *That*? We may as well try to catch the wind (*prana*). O hubris—that this prideful concept-bound ego of Narcissus would pretend to grasp all things in heaven and earth, and the very mind of God. Surely our minds are made for more than this. And this is one important difference between *separative* exoteric Religion—whether revealed/transcendental/supernatural, or natural/rational—and *unifying*, esoteric *Spirituality*, the non-conceptual direct and contemplative experience of our primordial source condition, nondual Spirit Itself, beyond mere concept and belief.

The great exceptions to this Modernist materialist metaphysics that became the Western Mind are Pythagoras, Plato, Plotinus, the non-dualistic Christian Gnostics Theodotus (disciple of Paul) and his great disciple, poet master Valentinus. Indeed, Plotinus is a bridge between Western and Eastern spirituality and was the founder of the 3rd century Nondual Revolution in the West. Nagarjuna was his 2nd century counterpart in the East. These scholar-masters realized and transmitted our nondual, naked intrinsic Primordial Awareness Wisdom (*gnosis, jnana, yeshe*), and rejected Greek foundational (necessary, certain) Realism and Materialism while acknowledging a transpersonal, transconceptual, rationally ineffable but not contemplatively ineffable *ultimate* basis or sourceground of *relative* conventional interdependently arising (*bathos/pratitya samutpada*) non-reducible dimensional orders (our Great Tradition's "Two Truths"): physical/chemical, biological, mental/emotional, and tacitly, sociocultural and historical.

Was the Modernist flight from Premodern spirituality an error? Given the wonders of modern science and modern liberal democracy, yet, is there a price paid for the hegemony of monistic Scientific Materialism and modern "natural" monotheism? Can nondual Spirit Itself be reduced to its arising merely physical and mental phenomenal contents as described by the modern sciences of physics, biology and psychology? But first a look at the Postmodern reaction to Modernity's cultish quest for absolute objective certainty with its destructive "taboo of subjectivity."

The Postmodern Reformation

The Modernity of the 17th/18th century European Enlightenment was an ideological flight to reason and rationality from the tradition and authority of the Premodern Classical Tradition, and from the presumptive dogmatic authority of both the early Platonized Christian Church, and 16th century Aristotelianized Christian authority. The Enlightenment's valorization and idealization of human reason and rationality over against Premodern tradition and authority is the very heart of Modernity; that is until Modernity recognizes that it has itself become a tradition and an authority. It is here that Modernity becomes Postmodern. Modernity valorizes not only reason and science, but secularism and individualism, all double edged swords, to be sure. The good news: Modernity gave us Newton, Hume, Kant, Mozart, the computer, Western liberal democracy, that is, a moral and economic strategy as to what to do without God. The themes of Postmodernity are difference and diversity, perspectivism and pluralism. This emphasis serves as an antidote to any retro-romantic propensity to coerce the views of the world's Premodern traditions into an idealized, unified perfect world harmony. The basal primordial unity lies ontically prior to the necessary and beautiful diversity of the world of form. Our Premodern and Modern (if not Postmodern) traditions exhibit vital relative-conventional diversity, as well as an ultimate unity.

The hermeneutics of suspicion. Postmodernity then, is antimodernist, a relativist, skeptical reaction to both Premodern tradition and authority and to the Modernist tyranny of reason and objectivity. Postmodernity rejects the European Modernist ideals of reason and epistemic and social progress objectively founded in a unified system of Scientific Realism. The Postmodern Western mind rejected this idealized Modernist Materialist ontology with its requisite radical Cartesian grail "quest for certainty," replacing it with a subjectivist, antinomian, radically perspectivist Nietzschean skepticism; a pathologically pluralistic, individualistic and relativistic "hermeneutics of suspicion" (Paul Ricoeur's term) toward holistic metanarratives, toward holarchy, toward Platonist and Neoplatonist (Plotinus, Proclus, Origen) and Platonist Christian (Augustine) transcendence and unity, hierarchy, exoteric religion, and esoteric spirituality. The "masters of suspicion" were Nietzsche, Feuerbach, Marx and Freud, and in theology, Karl Barth. Paul Ricoeur (1978) suggests that such a hermeneutics may liberate us ("liberation theology") from the logocentric false idol that is the transcendent Creator God of Western monotheism, thereby opening a way to the divine that abides not in exoteric religion, but esoterically within each human being, then spontaneously expresses as compassionate conduct in individuals, and through that, collective institutions.

Regarding this Postmodern project, we must here remember the dialectic, that the dogmatic, programmatic rejection of all metanarratives is itself a metanarrative that may not survive its own logical deconstruction. Modernist thesis begets Postmodern antithesis which begets a higher noetic synthesis. In any case, that is our thesis here.

Thus, for the postmodern mind, perceptual and conceptual experience is relativistic and perspectival. Nietzsche's radical and refreshing perspectivism asserts that the pragmatic truths of reality emerge only through many different perspectives. (We can wish that his Wagnerian anti-Semitic perspectives had been refreshingly absent.) That there is some transcendental "truth," a metaphysical, singular "transcendental signified" (Derrida) ultimate reality prior to the exoteric world of appearances is denied. Derrida's belabored emphasis on diversity and difference

(*Differance*) over Modernist unity is a primary theme of the Postmodern reformation. Indeed, such radical perspectivism is Nietzsche's excuse for the denial of objective knowledge altogether. Objectivity is but a pretense for power and Western imperialism, the last bastion of white male supremacy. But throughout these various and diverse Postmodern polemics the primacy of human authenticity and freedom is always present.

The odious squabbling in traditional epistemology and metaphysics—the “tough minded” skeptical empiricist/positivist tradition vs. the “tender minded” optimistic idealist tradition is, for Nietzsche but prodigal intellectual folly. “There are no facts, only interpretations.” There can be no metaphysically privileged perspective, no “view from nowhere” (Thomas Nagel), free of our preconscious perspectives and the intersubjective deep background assumptions of our cultural “web of belief.” And this great truth of intersubjectivity—that we possess little conscious awareness of the causes of our conceptual and belief systems—is the essential gift of the Postmodern legacy to the emerging noetic mind of humanity. Unfortunately for the Postmodern mind any transconceptual, transmaterial, even esoteric reality is absent. Alas, this excludes and precludes the Premodern compassionate primordial awareness wisdom (gnosis, *jnana*), the wisdom of emptiness (*shunyata*) that transcends yet embraces our conceptual interpretations, perspectives, cultural assumptions and beliefs. For Nietzsche, “God is dead.” From the Postmodern perspective then, all our absolutes—our logocentric absolutes—are dead. What is the result? It's more Postmodern bad news. Has not this Postmodern nihilism thrown out the hopeful baby of luminous transrational post-theistic nondual godhead with the dogmatic bathwater of a Modern absolutist theistic God? And is this not a spanner in the works of a fruitful *rapprochement* of the two ostensibly incommensurable paradigms that are Modern Science and a new noetic Spirituality? To accomplish this reunion we must relax the aggressive Postmodern nihilistic reactionary mind-set and grow beyond the cognitive limits of both the objectivist absolutist Modern and the subjectivist nihilist Postmodern perspectives and beliefs into a new integral noetic view and practice that is beyond belief (p. 23). As Ken Wilber has said, “We must preserve the progress of Modernity, while transcending its disaster” (Chapter VI).

For the Postmodern mind then, Modernist unity, reason and the Modern foundational realist philosophy of the subject/self—along with the naturalized theistic “God of the philosophers”—is replaced by relativistic otherness/difference/*differance*/diversity—and a dead God. John Dewey on the cult of nihilism that is the Postmodern mind: “The despair of any integrated outlook and attitude is the chief intellectual characteristic of the present age.” The Postmodern mind will not transcend its signs, its meta-language to any subtler or deeper, even noetic (matter/mind/spirit) meaning or reality.

The nihilistic antirealist ideologues of this poststructural, Postmodern outlook, besides Nietzsche, include the new skeptics, namely the radical Deconstructionists (Poststructuralists) Derrida and Foucault, the mature pragmatic Wittgenstein and mature (Nazi) Heidegger, the Pragmatists C.S. Peirce, and the antirealist Neopragmatists W.V. Quine, Jergen Habermas and Richard Rorty. The presumptive dissonant and aggressive rhetoric of Derrida and Foucault represent the Postmodern incarnation of a long, seeming endless parade of naïve, destructive radical nihilist Gorgian/Pyrrhonic skepticism.

These important Postmodern neo-pragmatist philosophers correctly rejected the 400 year hegemony of the modernist Western “final vocabulary” (Rorty) that is “Foundationalist” (indubitably certain) epistemic Realism and Scientific Realism, with its dogmatic quest for

absolute deductive objective certainty, demonstrating that science, the very paradigm of reason and rationality has an intersubjective, theory-laden, metaphysical, dogmatic, non-rational cultural core that it cannot escape (Appendix B: *The Idols of the Tribe: The Metaphysics of Science*). And this is the urgent legacy of the Postmodern view that must not be forgotten.

These neopragmatists offered a practical, social action based “radically empirical” (James), naturalistic countervoice to centuries of invidious epistemological and metaphysical paradigmatic bickering (realist vs. idealist and rationalist vs. empiricist) among the logocentric foundational ideologies of the Premodern and Modern epistemic Western Canon. Dewey’s pragmatic historico-sociological approach in his *Reconstruction in Philosophy*, and Rorty’s neopragmatic *Consequences of Pragmatism* offer methods useful to the emerging *rapprochement* between the ostensibly incommensurable paradigms of Science and Spirituality.

A noetic doublet. Yet, even these Postmodern ideologues, the discontents of the modernist, structuralist, materialist rationality of the Enlightenment Project seem unable to move beyond the conceptual limits of habitual discursive reason toward the emerging integral noetic (mind/spirit) paradigm that synthesizes, then utilizes *both* of the defining qualities of human being in form, namely, dualistic “inferential valid cognition” (reason/*kalpana*), and dualistic, gradualist yogic “direct perception” (*pratyaksa, kensho/satori, samadhi*) that is the direct knowing wisdom (*vidya*) that may result in a nondual realization of ultimate Spirit Itself. In brief, these two defining qualities are exoteric quantitative objective reflexive conceptual rationality of the philosophers and scientists, and the esoteric qualitative intuitive and introspective subjective spirituality of the yogis. Exoteric reasoning with its valid conceptual cognition offer a guiding light to esoteric spirituality. We need both. Just so in research. A robust integral noetic science of matter, mind and spirit must utilize this phenomenological noetic doublet of science’s exoteric second and third person objective, exterior/surface methodology, and “empirically spiritual” esoteric introspective first person subjective, interior/depth methodology. Our continued development through the ascending life stages of the psychospiritual evolution of our species requires both of these methodologies (Chapter VI). And this requires a relaxing of the Modernist and Postmodernist cognitive artifacts—absolutism and nihilism—to which we have become much attached.

Thus, the emerging integral Noetic Revolution transcends, embraces and reconstructs the nihilistic exoteric pathological pluralism of the Postmodern outlook, and the absolutism of the modernist view, then restores the creative subjectivity of our esoteric and nondual Great Wisdom Tradition. An integral noetic view and method integrates both the surface pragmatic and the deep truths of our Primordial Wisdom legacy through its Premodern, Modern and Postmodern currents.

The provident fruition of an integral noetic science of mind or consciousness (*adhyatma-vidya*) is the reconstruction and transformation of the despair of the relational trauma and conflict inherent in the narcissistic personal and social politics—commodification and consumerism—of dualistic “normal neurotic” (Freud) perception, toward our Great Wisdom Tradition’s liberating compassionate *poesis* and *praxis* as this all unfolds in Toynbee’s “rising culture” that is our new Noetic Revolution.

Let us now turn to the epistemological and ontological holism that emerged at mid-20th century, and serves as a bridge of understanding to the noetic integration of the perennial “Two Truths,” these two paradigms, that are Science and Spirit.

Scientific Knowledge and Ontological Relativity: Bohr, Quine, Kuhn and Alan Wallace

When we try to pick out anything by itself we find it hitched to everything else in the universe.

—John Muir

Discourse on Method

Science's view of science, as exemplified by philosopher of science Karl Popper, is that "scientific method" is the apotheosis of rational, logically defensible knowledge. The uncritical adulation and valorization of the Western scientific materialist tradition (Scientism) views science as the triumphal result of cumulative scientific progress. Thomas Kuhn's historical, sociological view denies this. These two interpretations outpicture the profound intellectual tension between traditional and historical sociological hermeneutics.

Against Method: Kuhn's holistic paradigm paradigm. In 1962, physicist, philosopher and historian of science Thomas Kuhn shattered this idealized view of objective scientific rationality, knowledge, and progress, along with science's primary explanatory ideology, Logical Positivism (with the help of Wittgenstein and Quine), with his immensely influential book *The Structure of Scientific Revolutions* (a million plus best-seller, unprecedented for an academic book).

Building upon the work of Alexandre Koyré, Kuhn utilized a close reading—not of the philosophy of science, and not of the heroic breakthroughs of science—but of the natural history of everyday "normal science." Kuhn's deflationary, antirealist sociological account of science demonstrated that scientific knowledge is not rational and objective, but dogmatic and close-minded as to its fundamental metaphysical assumptions, and is not cumulative or progressive, other than in an instrumental intra-paradigm sense. "Mature science"—the "hard" physical and biological sciences—are not openly divergent, but rather convergent with its own unconscious material realist worldview, opinions and expectations. Here, scientific research is not, on Kuhn's account, so much evidentiary as metaphysically dogmatic.

Such "normal science" is always governed by a "paradigm," a temporary general consensus among a community of practitioners about current methodology and foundational and fundamental principles. These paradigms then become ideologically entrenched and dogmatically defended. In due course "anomalies" arise—problems or "puzzles" that cannot be resolved within the established paradigm. Such unsolved puzzles cause a "breakdown of the paradigm." This precipitates a "scientific crisis" of confidence and an incipient openness to a competing alternative paradigm. The Standard Model of contemporary physics may be a case in point. As this new paradigm ascends, the old paradigm recedes and finally a "scientific revolution" occurs. Such radical change represents a "paradigm shift" or "gestalt shift." Competing paradigms are "incommensurable," that is, they cannot be evaluated by neutral or common methods, making inter-paradigm comparisons exceedingly difficult. Paradigm-neutral observation is nearly impossible according to Kuhn. Unbiased communication across paradigms cannot or does not occur. With incommensurability follows the untenability of scientific reduction. For example, Newton's conception of mass is incommensurable with Einstein's view.

Here then is the dialectic: a crisis in a scientific paradigm causes a scientific revolution. The dogmatism in the revolutionary new paradigm eventually generates the next crisis and its revolution, and so forth. Cases in point: the transcend and include dialectic of Newtonian mechanics to relativistic mechanics to quantum mechanics.

Thus, scientific knowledge occurs within paradigms, but not across paradigms. For Kuhn, there is no extra-paradigmatic reality. There is no necessary “real world out there” (RWOT) independent of the nomic theoretical contents of the paradigm. Further, scientific observation within a paradigm is “theory laden” (Kuhn has been reading Quine). What scientists (and the rest of us) observe is merely a function of what we believe and expect to see. *There is no ideal norm of objective scientific evidence independent of theory. All observation and belief is theory dependent and theory is always “underdetermined by its (empirical experimental) evidence.”* Because of the inevitable dogmatic attachment to the current constituting theories, ideology and idiom of the prevailing paradigm, cognitive “gestalt shifts” across competing paradigms are akin to a religious conversion. Believers on each side participate in “different worlds.” A scientific paradigm finally succumbs when the old school believers die off and the new vanguard achieves academic tenure.

What shall we make of Kuhn’s thesis that all perception is theory-laden? This seems overdrawn. Clearly theory and belief effect perception. But not all perception is entirely theory laden, e.g. the top hat illusion. Moreover, during paradigm transition, there are interparadigm areas of rational agreement as well as disagreement. Kuhn’s profound deflation and reconstruction of realist, objectivist scientific knowledge continues the antinomian, relativist and often cynical Postmodern critique of Modernity’s dogmatic, romantic valorization and idealization of scientific objectivity and truth as foundational Realism—reality’s direct correspondence with appearances (the now defunct “correspondence theory of truth”).

In recovery. Modernity’s rational, realist, materialist idealization of human rationality resulted in the unspeakable horror of the first half of the 20th century, leaving a Faustian legacy of geopolitical viciousness, despotism, insecurity and terror. The Postmodern reformation then, has been a radical antirealist reassessment of this modernist “Enlightenment Project” with its idealization of representational Scientific Realism, reason and epistemological, political and scientific “progress.” Here both Derrida and Rorty have sacked the entire modern Enlightenment ideal, arguing instead for a nihilistic and skeptical, even utopian ideal, free of the terror that unenlightened reason bestows upon us. Is there a middle Way? (p. 81 ff)

The Western mind is now in recovery from the nihilism of the Postmodern metaphysical pretension to skepticism, and relativism, and from the empiricist metaphysics of its Modernist precursor, the obsessive proto-religion of objectivist functionalist Scientific Materialism (Scientism) with its infernal “taboo of subjectivity.” Indeed, I will argue here that this recovery is nothing less than a new reformation in religion, science and culture—a pragmatic, anti-foundationalist, antirealist new Noetic Revolution—with quantum field theory and quantum cosmology, neurobiology, consciousness studies, philosophy of mind and *Madhyamaka* Buddhist epistemology as vanguards of the way.

Ontological Relativity. Niels Bohr, author of the holistic quantum Principle of Complementarity concluded that the purpose of scientific theory is not the discovery of intrinsic truths about a representational pre-given pre-existing independent reality “mirror of

nature” (Rorty), but rather to clarify and explore the relationship of our cognitive perceptual frameworks—our consciousness—to the quantum information bits (qubits/*visana*) arising from this presumed atomic reality (*Atomic Theory and the Description of Nature*, 1934). This vital ontologically relativist, antirealist alternative philosophy of physics, that the theoretical constructs of physics—waves, particles, fields, forces etc.—are merely pragmatic descriptive instruments, not independently existing “real” things, is called Instrumentalism, (or operationalism, or nominalism). It opposes the Neorealism of Einstein and the “hidden variables” realists, and the stochastic “Probable Realism” of Pragmatist C.S. Pierce, neither of which presume the existence of an independently real physical cosmos.

Both Werner Heisenberg—the author of the other essential principle of the Quantum Theory, the “Uncertainty Principle”—and Bohr understood that the Quantum Theory makes no assumptions about an inherently existing “real” objective physical reality, or the objective existence of its elementary particles, but is rather, about the cognitive relationship of the consciousness of the experimenter/observer to the measurement of quantum event information. Indeed, Schrödinger’s “collapse of the wave function” (the state-vector reduction) at the instant of a measurement (or of a perception) by a consciousness, is the persistent quantum “measurement problem” that abides at the margin between subjective “virtual” reality and ostensibly objective physical reality, be it microscopic particles and waves or macroscopic cats, persons, trees and stars (Chapter IV).

Kuhn, Bohr, Quine and other Postmodern philosophers of science (physics, biology and psychology) have pointed out that the laws of physics are highly idealized nomological cognitive constructs that describe the behavior of appearing objects within the context of a theoretical model, and do not descriptively, and should not prescriptively pretend to describe any ontological nature or essence or independent reality of appearing objects, nor of the subjective depth of the unbroken, interdependent whole in which they arise. This whole is necessarily closed by the Planck limit and the quantum uncertainty relations to such theoretical conceptual penetration. Such idealized models are limited by their mathematical formalism and cannot, *ipso facto*, causally enrich speculative ontology. *Scientific laws give us left brain, exoteric, nomic conventional explanations of the behavior of phenomena arising through the ineffable ultimately subjective noumenon, the esoteric basal matrix that is the Platonic/Kantian diaphanous “thing-in-itself,” Plato’s “first principle,” beyond or prior to the exoteric “ambiguity barrier” created by the phenomenological limit of discursive theory, concept and belief.* To penetrate this ostensible barrier we utilize “spiritually empirical” first person contemplative technologies.

In his excellent *Hidden Dimensions* (2007), Alan Wallace agrees. He concludes that there is a “broad consensus among psychologists, neuroscientists, and physicists. . . [that] perceived objects, or observable entities, exist relative to the sensory faculties or systems of measurement by which they are detected—not independently in the objective world.” This is, as we shall see, a step toward the ontological relativity of Buddhist *Madhyamaka Prasangika* and the *Dzogchen* view of the interdependent arising (*pratitya samutpada*) of impermanent (*anitya*), selfless (*anatman*) phenomena which are emptiness (*shunyata*), that is, empty of any intrinsic existence. Introducing his seminal “Theory of Ontological Relativity” Wallace states:

There is one truth that is invariant (absolute) across all cognitive frames of reference; everything that we apprehend, whether perceptually or

conceptually, is devoid of its own inherent nature, or identity, independent of the means by which it is known... Nothing exists by its own nature... In other words, there is no way to separate the universe we know from the information we have about it... Natural science is a science of information, not a science of a world that exists prior to and independent of information. (Wallace (2007).

For Method. We will herein, from time to time, indulge in bits of unbridled ontological speculation—not for the metaphysically squeamish—upon *this one “truth” that is, most verily the ultimate nature of Reality Itself, the very essence or Nature of Mind, “The Bright” that is the outshining clearlight awareness of mind. This is after all, the heart of the emerging view and method of the ontic Noetic Revolution that is now upon us.* This revolutionary nondual view—introduced in the first Noetic Revolution on the cusp of the 3rd century by Nagarjuna and Plotinus—simultaneously cognizes the prior unity of the objective scientific study of nature/matter with the direct yogic perception (*kensho, pratyaksa*), and direct knowing (*vidya/rigpa/epinoia*) of our perfectly subjective basal sourceground (*cittadhātu*), all-embracing nondual Spirit that transcends yet embraces nature, and in which or in whom everything arises. Organized religion seeks this ground through exoteric ritual, concept and belief. Esoteric spirituality experiences it perhaps more directly, through the meditative/contemplative practice of the Path, then unpacks it all through “valid cognition” (*pramana*) of the reflexive conceptual “View” (*darshana*) of the whole.

In Chapters III, IV, V and especially VI we shall return to a less metaphysically ambitious, critical inquiry into this radically empiricist methodology, and noetic soteriology with its its contemplative injunctions, and its fruition that is psychospiritual liberation or enlightenment, our ultimate individual and, in due course, collective happiness.

Through all of this I will attempt to avoid logocentric prosody and theosophy, that is, I will attempt not to reify, entify or posit metaphysical/ontological entities—“transcendental signified” logocentric absolutes arising in or to consciousness—whether propositionally or mythologically/metaphorically—through the modalities of matter/mind/spirit (physical, mental, subtle, causal, nondual)—not even the “Absolute Truth” (*paramartha satya*) that is Tao, Brahman, emptiness, Dharmakaya and the rest, for all of this is utterly empty of attributes and absent any shred of independent intrinsic identity or existence. Rather, I will follow a post-Kantian, post-transcendental, post-Postmodern noetic methodology, namely that these apparent transcendent “spiritual” dimensional strata and states are inherently nondual and non-separate from the dualistic conventional consciousness that apprehends them, yet may be fruitfully, if dualistically explored and confirmed by practitioners “on the path” through the vertical, “spiritual empiricism” (Ken Wilber) of the masters and *mahasiddhas*, “those who know” and teach the various meditative contemplative injunctions, *poiesis* and *praxis* (View, Meditation, Conduct). Through this noetic methodology we shall explore our relationship to the vast multidimensional, interdependent one truth “that is invariant across all cognitive frames of reference.”

But now, W.V. Quine’s ontological relativity, a cognitive bridge between the “incommensurable paradigms” that are Western Science and Eastern Spirituality.

Quine's Revolution: Epistemological Holism in Science and Philosophy

To be is to be the value of a bound variable.

—W. V. Quine

“On What There Is”: Quine's Ontological Relativity. Willard Van Orman Quine (1908–2000) is considered by many in the philosophy trade to be the most important American philosopher of the 20th century. His Ontological Relativity (indeterminacy of reference, indeterminacy of translation) is the thesis that ontology — “what there is” — is relative to language, that is, to the subjective deep background reality assumptions in our individual and collective “web of belief” as it arises and is instantiated in language. (Epistemology is how we *know* what there is. There are no objective facts, only linguistic meanings.) In his seminal “Ontological Relativity” (1969) Quine develops his thesis that when a theory postulates its existent entities in a given language—its “object language”—it does so by translating its theory's propositions (statements) about those entities into a more inclusive “meta-language,” *langue* (Saussure), or background matrix or web of prior assumptions and beliefs. The ontological status of entities or objects of the object language are relative to and supervene or are dependent upon the intersubjective prior cognitive “coordinate grid” that are the assumptions and beliefs of the meta-language into which they are translated. Unfortunately, though ontology is minimized, Quine's personal ontological flavor is Physicalism. It's all just physical, which explains his epistemology, namely empiricism and naturalism. Quine was never able to shake the imperious physicalist doctrine of his early teacher Rudolf Carnap and the Vienna Circle of the Logical Positivists. As to Quine's naturalism, he believed that it is the task of science, not logic or philosophy, to determine ontology (that there is), and epistemology (how we know what there is), which explains his physicalist ontology, namely Scientific Materialism, very much the prevailing orthodoxy at mid-century. Quine's Realism is Scientific Realism regarding ostensibly physical objects, and Platonic regarding logical sets. So Quine naturalizes both ontology and epistemology. And this naturalistic philosophy admits of no logocentric foundational first philosophy, no Realism, no Idealism.

On the irrelevance of logic to ontology:

What makes ontological questions meaningless when taken absolutely is not universality but circularity. A question of the form ‘What is an F’ can be answered only by recourse to a further term: ‘An F is a G.’ The answer makes only relative sense: sense relative to the uncritical acceptance of ‘G’” (Quine, *Ontological Relativity* 1969)

Thus the ontological status of phenomenal reality is relative to something prior. Ontology is relative to our conventional cultural and scientific concept and belief systems. It makes no sense to inquire about the absolute reality of an object, or the absolute meaning of a statement. Therefore, a proposition cannot be empirically tested and shown to be true or false without referring to intersubjective prior deep background assumptions and beliefs in the basal meta-language matrix.

This raises the problem of “auxiliary hypotheses.” For example, the hypothesis “All

copper conducts electricity” is neither verifiable nor falsifiable in isolation. We need auxiliary hypotheses from our basis of prior assumptions and beliefs regarding electrical conductance, conductance meters, copper wire, the atomic number of copper, etc. Therefore, no hypothesis is testable in isolation from the whole, namely, related hypotheses and theories, *i.e.* prior causes and conditions.

On what there is not: Quine’s holistic assault on objectivity. In Quine’s “Two Dogmas of Empiricism” — the most celebrated philosophical essay of the 20th century — he develops his radical nominalism (abstract terms do not entail real existents) and epistemological holism (“confirmation holism” that is also a semantic holism). *The two basic* precepts of Quine’s holism are 1) interpretation of an empirical observation is “theory laden” or theory dependent, that is, it is dependent upon prior assumptions, theories or beliefs, and 2) all theory is “underdetermined” by its evidential data, that is, empirical evidence in isolation is not an adequate criterion of decidability as to theory vindication, verification, or truth. Since the primary metaphysical assumption — the ontology — of science is foundational Scientific Realism which holds that scientific knowledge consists of an ontic commitment to materially and physically real *theory-independent* phenomena, and also that only empirical evidence is suitable to adjudicate theory validity, Quine’s radical naturalistic “extreme nominalist,” intersubjective epistemological holism undermines both common sense/naïve Realism and its intellectual kin, Scientific Realism. Quine denies the metaphysical assumption that a predicate (red) entails the actual existence of a related material object (house).

We can use general terms, for example predicates, without conceding them to be names of abstract entities. I have argued further that we can view utterances as significant, and as synonymous or heteronymous with one another, without countenancing a realm of entities called meanings.

Thus, the arising, appearing entities of our conceptually reified reality are non-objective. Meaning is indeterminate and non-reducible. Statements true by definition (analytic) and statements true by experience (synthetic) cannot be usefully and truthfully separated. Meaning is behavioral and public. Meaning is holistic and experience cannot adjudicate between competing theories and paradigms. *Meaning is ontologically relative.* Ontology is relative and pragmatic. We find meaning adverbially, in our own cultural background web of belief. And it is only here — in the context of the whole information matrix — that our theories confront the vast crucible of experienced reality in the context of the whole information matrix that is our individual and collective cultural web of belief.

This radical holism regarding theory testability and verification is, on Quine’s account, a holism of meaning. Therefore, in place of the scientific reductionism (meaningful statements are reducible to observation statements) of the Logical Positivists, Quine asserts that ultimately it is the whole of science, not mere propositions, that verify our theories and our paradigms. Scientific propositions or statements are a web of interconnected, interdependent statements that ultimately constitute “total science,” the “field of force” that is the whole of science, if not the whole of Reality Itself. Says Quine, “the unit of measure of empirical meaning is all science in its globality.” The Logical Positivists, fearing metaphysical statements, reduced meaning to mere immediately *observable* experience. But what was actually needed was a theory that

accounts for *unobserved* phenomena—quarks, the Big Bang, acupuncture meridians—without falling into spooky metaphysics.

Quine here builds upon the broad contextual shoulders of the great logician Gottlob Frege (1848-1925)—creator of the first new logic since Aristotle—whose holistic “Context Principle” states that a word or phrase derives its meaning only from the entire context of a sentence. Meaning then, is context dependent and arises only *interdependently* in relation to the causal nexus of the entire cultural tradition, not *independently* in isolation from the whole of this metalanguage basis. Quine agrees with Wittgenstein that “Comprehending a proposition means comprehending a language” (*Philosophical Investigations*). For the mature Wittgenstein all our beliefs are parts of a whole system of beliefs that constitute our “form of life,” or “lifeworld” (Habermas) that is our world view (*darshana*). The whole system presupposes, includes and subsumes all our knowledge and belief. (*On Certainty*, 1969). “A sentence has meaning only in the context of a whole language,” (Donald Davidson).

The Quine-Duhem Thesis. This radical epistemological holism or “confirmational holism” leads to refreshing consequences *fantasque*. If the propositions our theories generate about “what exists” in appearing reality—questions of ontology—are underdetermined by the empirical evidential data of our senses, then empirical observation cannot logically require any changes to a theory. Thus the Quine-Duhem Thesis states that no experiment can be decisive in confirming a theory because all experiments arise in a context of background assumptions. Therefore, all empirical experiments, indeed all perception is “theory laden.” So any proposition can be asserted to be true regardless of the data, provided we modify other pertinent internal components—“auxiliary hypotheses”—within the “field of force” that is the whole theoretical system. Conversely, no belief is protected from revisions. There will always be multiple theories supported by the data (Ken Wilber’s Principle of Non-Reductionist Causality). In Quine’s web of belief the data of empirical experience interfaces only with the surface boundary or boundary conditions that are the empirical experience aspect of the whole system. Thus we can distribute the cognitive force of anomalous experience that represents inconsistent empirical insults to a theory through the conceptual tweaking of other propositional constituents deeper within the theoretical system. “Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system.” All sectors of our intersubjective web of belief—even the laws of logic—are subject to such revision. The great modal logician Quine came to understand that even logical necessity is a product of deep background cultural assumptions, despite attempts by analytical philosophers and logicians to establish it as a citadel of *a priori* knowledge. Indeed, in the early 1940s Quine entirely reframed Frege (“On Sense and Reference” 1892/trans. Geach and Black Oxford 1952) and Russell (“On Denoting” *Mind* 1905), and denied logical necessity altogether, that is, he denied Aristotelian metaphysical foundationalism in which necessary and contingent properties must apply to objects regardless of their specified modality (real, nominal, greater than, etc.). For Quine, “this reversion to Aristotelian essentialism is required if quantification into modal contexts is to be insisted on...[therefore] so much the worse for modal logic.” This deep skepticism as to modal logic constitutes a radical assault on quantified modal and causal logical necessity that are the very foundation of Western logic and metaphysics (“Post-Quantum Logic” below pg. 71). For example, Quine was very much aware that the Quantum Principle of Uncertainty seems to violate Aristotle’s

sacrosanct "Law of Excluded Middle" of the Western logical canon ("Post-Quantum Logic," p. 71).

Quine is a bridge. It is this Quine-Duhem Thesis that is the basis of Quine's philosophy world changing contention that Kant's foundational analytic/synthetic distinction, along with modern empiricist Reductionism are "ill founded," and serve no valuable scientific or philosophical purpose. In his revolutionary "Two Dogmas of Empiricism" Quine reveals that

Modern empiricism has been conditioned in large part by two dogmas. One is the belief in some fundamental cleavage between truths which are *analytic*, or grounded in meaning independently of matters of fact and truths which are *synthetic*, or grounded in fact. The other dogma is *reductionism*: the belief that each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience. Both are ill founded (Quine 1951).

These metaphysical "Two Dogmas" just happen to be the two epistemological pillars of Modern Scientific Empiricism with its 20th Century incarnation, Logical Positivism (Logical Empiricism, Logical Atomism à la Carnap, Russell, young Wittgenstein, Ayer). This seminal essay, along with "Ontological Relativity" (1969), constituted a devastating refutation of Logical Positivism, the preeminent anti-metaphysical scientific physicalist, realist, reductionist theory of the first half of the century. Quine informs us that in abandoning these "Two Dogmas" we will observe "a blurring of the supposed gap between speculative metaphysics and natural science. Another effect is a shift toward pragmatism" (Quine 1951). *Abandoning these Two Dogmas rendered dubious not only Logical Positivism, but the entire edifice of 20th century American Analytic, and Continental philosophy with their sweeping "turn to language" and linguistic analysis, thereby collapsing 2,500 years of speculative epistemology into natural science.*

However, this holistic Naturalism, as with Wittgenstein's Naturalism, is not an epistemological Relativism for Quine believed that our theories could and should be guided by "simplicity" (parsimony, Ockham's Razor), and "conservatism" (retain the best of the original theory). And to the skeptics both Wittgenstein and Quine assert that yes, there exists real knowledge, but it is contingent and conventional (Nominalism). There are no propositions that are necessary or absolutely certain (Wittgenstein 1967). This is essentially the Middle Way Buddhist view (*Madhyamaka Prasangika*), and the view of our emerging Noetic Revolution of the 21st century.

The traditional destructive separation in our Western collective web of belief between the two epistemic paradigms that are scientific objectivity and subjective metaphysical and religious speculation, between speculative epistemology and objective science has, at long last, been logically subdued. The Cartesian demon of the scientific pretension to perfect rationality, our promethean quest for absolute objective certainty is slain. And thus has philosophy been saved.

In *Word and Object* (1960), Quine's profound synthesis of his previous work, he promulgates his naturalized epistemology, ontological relativity, physicalism, skepticism as to modal logic, Platonic Realism as to numbers, Scientific Realism and holism over reductionism.

Quine's project—his "extreme nominalist," antirealist, neopragmatist and empiricist

“naturalized epistemology” —is a bridge from the ascending path that is the absolutism of Modernist objectivist Scientific Realism and Scientific Materialism/Scientism (and from the descending fuzzy Romantic *Sturm und Drang*, and the skeptical nihilist Postmodern reactions to Modernism), to the later holism of Kuhn, Habermas and the emerging pragmatic and neopragmatic reformation in religion, science and culture that is our incipient radically holistic and pragmatic Noetic Revolution.

The notion of cognitive paradigms introduced by Kuhn, but first elaborated by Quine and Wittgenstein, demonstrates that the “paradigm,” or “web of belief,” or “form of life” or “lifeworld” (Habermas) in which individuals are cognitively embedded determines reality, truth, meaning, intelligibility, worldview and ethical conduct for the participants in the paradigm. Again, the real, truth, meaning are not absolute, and are not independent of deep interdependent intersubjective cognitive cultural background information, and are preconscious, contingent, relative, conventional and pragmatic. And this is “ontological relativity,” that is, “what there is” for human cognition supervenes upon our collective “web of belief.” What you believe is what you get.

Moreover, Kuhn has demonstrated that cross-paradigm translation, evaluation and communication are quite problematic. Well, are these two paradigms—objective Science (form) and subjective Spirituality (emptiness)—as “incommensurable” as they seem? Is there a Middle Way? (p. 81 ff)

Toward a Middle Way Between Modern Absolutism and Postmodern Nihilism

The trouble with most poetry is that it is either objective or subjective.

—Basho

Has Postmodernity devoured itself? In the Postmodernism of Nietzsche, Bohr and the Quantum Theory, the Deconstructionists, the Pragmatists and the Neopragmatists we have witnessed a profound revolution in philosophy, religion and science. A foundationalist philosophy of first principles based in a fundamentalist epistemic foundational Realism and/or Materialism/Physicalism is dead. The 2,500 year old project to construct an absolutely certain knowledge foundation for an objective independently given real material world—from the Pre-Socratics through Plato and Aristotle, to Descartes and Locke—is now kaput! The sinister “myth of the given” is forgiven. An objectively certain “God’s eye view” or “view from nowhere” was never rationally, empirically or psychologically possible, and most philosophers, and quantum physicists and quantum cosmologists know it.

Further, no one can take more than a moderate “healthy” Humean skepticism (*epoche*) seriously and remain credible in a post-Kantian, post-metaphysical world. Radical Pyrrhonic epistemic skepticism is dead. This leaves an opening for a pragmatic Middle Way view that combines human reason as inferential valid cognition (*anumana pramana*) with contemplative practice—in both the Science and the Spirituality paradigms, and thereby new hope of a cross-paradigm *rapprochement* between them.

Moreover, scientific *explanatory* reductionism is dead. The emergent complexity of neurobiology is far too complex to be reduced to chemistry and then physics. But *ontological* reductionism—the reduction of human beings to Lewis Carroll’s (Alice’s) “pack of neurons,” and then that pack to molecules, atoms and quarks—is alive and well. Ontological relativity: Quine and the Buddhist middle way *Madhyamaka Prasangika* and *Ati Dzogchen* have shown that the nondual emptiness base—the Absolute Spirit that is Ultimate Reality—cannot be reduced to its mere arising physical form. Yes, “Form is emptiness, emptiness is form.” These two truths—these two paradigms—are an ontological prior unity. So it’s not all just pre-given form. Physical form appears, and it’s real, yet it is empty of any independent, intrinsic existence or identity from its own side. “What there is” —Being, Reality, ontology—is relative to our intersubjective linguistic, cultural, informational “web of belief,” our conceptual and belief systems. The stuff of reality is not independently absolutely real (Realism), nor is this all merely physical (Physicalism/Materialism). This, at least, is determined.

What to do in a radically perspectival Postmodern world? Resplendently, the Cartesian demon of our logocentric grail quest for absolute objective deductive certainty is slain, and the dualistic, realistic epistemic and ontic foundational architecture of our human cognition—the Modernist metaphysics of our conceptual knowledge and belief systems—is shaken to its core. Because we limit ourselves most by our attachment to our present concept/belief systems, psychospiritual evolution demands that “all that can be shaken, shall be shaken” (Dōgen/Suzuki Rōshi). But has the antinomian beast of radical Postmodern skeptical deconstruction and pathological pluralism devoured itself? What remains? And now what shall we do?

Knowledge and liberation. Let’s begin with three more questions. Is human knowledge and liberation wedded to an objective foundational Realism and Materialism? Is our deep cultural background preconscious cognitive commitment to a permanent, independent, separate,

absolutely existent physical/mental self, perceiving its pre-given absolutely independently existent phenomena, a cognitive condition from which we can liberate ourselves? And if so, how? We shall see that the answer to the first question is a big “no.” To the second question, a big “yes.” The “how” question shall be the concern of the remainder of our exploration.

According to Richard Rorty and the Neopragmatists, philosophical and psychological absolutist theories of truth—whether realist or antirealist—are all wrong-headed. Why? Because they all require that we somehow transcend or leap out of our perpetual conceptual “ego-centric predicament,” our preconscious habitual egoic attachment to the naïve fundamentalist Materialism and Realism that is our deep cultural background “web of belief,” or “form of life.” Buddhas and *Mahasiddhas* can do that. Most of us won’t. The dualistic psychic cognitive dissonance of this precarious preconscious pretense to a permanent independent, absolutely existing separate Self in an absolutely existing “real world out there” (RWOT)—in the face of this cognitive unconscious denial of our impermanence, along with our superconscious awareness of the prior interdependent luminous unity of this world—has resulted in an individual and collective schizoid reality, and thereby terrible suffering. Our Great Wisdom Tradition teaches that the transformation of this egoic mind of Narcissus—our liberation from the fear of our personal death that animates the anger and aggression that is human alienation and evil—is the gradual cultivation of a compassionate altruism that spontaneously arises as we surrender this mistaken independence, this presumption of a separate self in a separate reality (ignorance/*avidya/hamartia/sin*). Psychospiritual growth-steps in fear and trembling, to be sure.

For the Pragmatists and Neopragmatists, Pragmatism’s Theory of Truth is a denial of our need for an absolute objective foundational Realism. We saw that the answer to our first question above is no. Human knowledge and liberation is not bound to foundational Scientific and massmind Realism/Materialism. Platonic and Neoplatonist spirituality, the teaching of the nondual Gnostics (Theodus, Valentinus), and Eastern Idealism works too. So we’re in realist/materialist recovery. And that’s OK. A journey of a thousand miles begins with that first step.

The truth of the Postmodern reaction to Modernity? Truth is not absolute but conventional, cultural, nominal, contingent and pragmatic, as in the Eastern idea of truth as *Aletheia*—uncovering, revealing—as we shall see. This notion of truth is derived from our perennial Great Wisdom Tradition’s idea of the “Two Truths,” exoteric, relative-conventional pragmatic truths, and ultimate or Absolute Truth that embraces it, and in which everything arises and participates. And these two conceptual truths are an esoteric ontic prior unity. This conceptually, but not contemplatively ineffable unity we have seen is the transconceptual, transpersonal nondual one truth—“one truth that is invariant across all cognitive frames of reference” (Wallace). This is the singular truth that all arising reality—physical or mental—is absent any shred of its own *independent* intrinsic nature, inherent existence, or essential identity, but is rather *interdependently* interconnected (*pratitya samutpada*) within a vast causal nexus that is its basal source condition. More on this below.

East is East and West is West. Let us see how it is that the wisdom of the East and the wisdom of the West come to meet in a noetic matter/mind/spirit integration of Premodern, Modern and Postmodern truths through our emerging Noetic Revolution.

Bridge Building: Toward a New Paradigm for Science and Spirituality

Materialism is that form of philosophy which leaves the universe as incomprehensible as it finds it.

—C. S. Peirce

The inseparability of the two truths, absolute and relative, is called 'primordial Buddha.'

—Kunjed Gyalpo, *The Supreme Source*

Appearance and reality: ontological interdependence of the Two Truths. On the account of our primordial Great Wisdom Tradition, phenomenal reality arises and appears as two levels, modes or dimensions of awareness. These two ways of being here are the perennial "Two Truths" (*satyadvaya, denpa-nyis*) of the unbounded whole that is Reality Itself. We live in two irreducible dimensions at once! These conceptual Two Truths—objective form, subjective emptiness—are a prior ontic unity that is the one truth, the Buddha's "one taste" that defines the way in which phenomena appear, and their actual intrinsic ultimate reality nature, which is not the way that they appear. Human beings experience the emptiness of Ultimate Truth through direct perception (*percept*), then cloak this through the Relative Truth of conventional, secondary conceptual elaboration (*concept*).

Every one of the six Yoga Systems of the Hindu *Sanatana Dharma*, and each of the four Buddhist Schools—the *Hinayana* (*Vaibhashika* and *Sautrantika*) and *Mahayana* (*Yogachara/Chittamtra* or Mind Only and *Madhyamaka* or Middle Way)—subscribe to some version of the Two Truths. In Taoism these Two Truths are *Tao* and *Te*. In *Advaita Vedanta* and Neo-Vedanta the Two Truths are *Nirguna* Brahman and the World. In the West the Two Truths began with Heraclitus' Becoming and Parmenides' Being, then as Plato's metaphysical substance dualism (early Dialogues) of what is ultimately the immutable universal nondual monistic *Reality* of the Forms/Ideas, and the impermanent shadowy world of Appearance (late Dialogues); of absolute Spirit with physical matter; of infinite Consciousness Being Itself, and its Becoming in relative spacetime reality. In the Quantum Theory this primordial dualism appears as the objective physical appearance of Classical Newtonian mechanics, and subjective quantum mechanical reality that is the nonlocal coherence of the zero point energy of the Unified Quantum Vacuum (p. 27).

According to Buddhist Mahayana/Vajrayana Middle Way *Prasangika* and *Ati Dzogchen*, appearing objects are nominally, relative-conventionally real, but not intrinsically or ultimately real (p. 34). Ultimately, appearing phenomena are *mahashunyata*, the great emptiness, that is to say, form is empty of any intrinsic or essential nature or inherent existence. We shall see that in a centrist middle way view emptiness (*shunyata*) is not an absolute reality, nor is it nihilistic nothingness. Emptiness is not some ultimate deeper transcendent Reality behind relative spacetime reality, but merely the actual nature of ordinary reality "just as it is," empty of any essence, identity, permanence, or independence.

This perennial wisdom conceptual duality of relative and ultimate dimensions—form and emptiness—is resolved in the non-conceptual "one truth, devoid of its own inherent nature," yet that includes both. This one truth is the nondual, discursively unelaborated and

conceptually ineffable ontologically prior unity of our Great Wisdom Tradition's Relative Truth (*samvriti satya*) with Ultimate Truth" (*paramartha satya*) that is Buddhist emptiness (*shunyata*); that is the *Nirguna Brahman* of Shankara's *Advaita Vedanta* and the Neo-Vedanta of Aurobindo and Ramana Maharshi; that is the unity of yin and yang in *Tao*; that is *Ein Soph* of Zohar/Kabbalah. These two truths are the nondual one truth. "Truth is One. Many are its names" (*Rig Veda*).

Again, "nondual" (*advaya/gnyis-med*) means the prior ontic unity of perceiving subject and perceived object. There is no *essential* separation between the two truths that are "emptiness and form," the primordial emptiness matrix base, and interdependently arising spacetime mental and physical forms.

This one unifying truth is simply the transpersonal, transconceptual unbroken whole, that golden thread of radical, nondual truth—perceptible only to yogic "spiritually empirical" contemplative direct perception (*satori, pratyaksa*)—the warp that runs throughout the entire fabric of the "innermost secret" teaching of the major traditions of our primordial Great Wisdom Tradition. This ultimate reality transcends yet embraces the dimension of "Relative Truth," the "truth that conceals," endless "concealer truths" (*avidya/vikshepa*) that are mass-energy spacetime phenomena interdependently arising (*pratitya samutpada*) in and as the "Interbeing" of empirical spacetime reality. This Relative Truth reveals conceptual relative conventional, empirical causal truths while concealing their nondual ultimate nature. As Professor Jay Garfield has said, "To understand that things are empty is to understand that they are just conventional. To understand the conventional reality of things is to see that they are empty."

For Buddhism and for Hindu *Vaisheshika* the relative truths of conventional perceptual and conceptual mind—whether as inferential valid cognition (*pramana, kalpana*) or as yogic direct perception (*gompa, pratyaksa*)—cloaks (*vikshepa/avidya maya*) the great primordial liberating nondual one truth. (*Mimamsa* and *Yoga* also accept "testimony" and "analogy" as valid cognition.) Again, the nondual one truth transcends yet embraces the conceptual entities that are Ultimate or Absolute Truth and the Relative Truth that is the pluralistic multiplicity of the conventional truths of physical and mental spacetime reality. Yet all of that is merely our concepts and beliefs about the non-conceptual Absolute that enfolds everything that arises and appears. With the failure of the Western traditional representational correspondence and the coherence theories of truth to pass epistemological muster, this "one truth" may be viewed less empirically and objectively and more pragmatically, as the meaning of truth for the ancients—*Aletheia*—the uncovering or uncloaking activity that reveals (*rolba*) our non-conceptual/nondual source that is the infinite vast emptiness expanse that is Reality Itself abiding ontically prior to all the relative-conventional "concealer truths" and our concepts about them.

An integral ecology of mind. For Buddhists these fundamental Two Truths are "emptiness and form." The never-ending dialectic of these conceptual Two Truths that are the nondual, transrational monism of the one truth is nothing less than the infinite dance of geometry: involution and evolution, infinite Base (*gzhi*) that is nondual "Big Mind," ultimate Consciousness-Being-Itself (*cittata/sems nyid*) continuously becoming (*karma*) the finite particulars of the consciousness (*vijnana*) that is the Small Mind of relative conventional spacetime reality.

This process is traditionally viewed conceptually—dualistically and pragmatically—as the *descent* (Plato's *Eros*, Telos, ontogeny) of our formless primordial awareness matrix sourceground, Absolute Spirit (*Kosmos*) into the broken symmetries and narratives of the relative conventional forms of empirical spacetime (cosmos), including we sentient beings. Then, in due course comes the *ascent* or “eternal return”(agape, evolution, phylogeny)—through the unconscious horizontal and conscious vertical spiritual paths—again to the realization of nondual Spirit, our supreme source (Appendix E: *Toward an Integral Ecology of Mind*). “The nature of mind is no different at the pinnacle of enlightenment, than it is at the primordial base” (Adzom Rinpoche). In the nondual view, spirit and matter have never separated, but abide as a timeless nondual unity. Nondual Spirit is both pinnacle and base, the pinnacle of psychospiritual development, and the all inclusive basal sourceground of all that arises therein. Once again, “Form is emptiness, emptiness is form” said the Buddha in his *Heart Sutra*. The principle *Dzogchen semde* tantra states:

In terms of the source, the root of all phenomena, there is no such thing as an observer and an object to observe. All the phenomena of existence, without exception, abide in the supreme source in a condition of birthlessness... As the supreme source (*Samantabhadra*), pure and total consciousness, I am the mirror in which all phenomena are reflected. Although lacking self-nature everything exists clearly; without need for a view, the nature shines clear. Understanding the essential unborn condition is not an object to observe dualistically. This is the great Understanding!
—*Kunjed Gyalpo, The Supreme Source* (trans. Chogyal Namkhai Norbu 1999)

This trans-physical or meta-physical sourceground of Reality—*Kosmos*—subsumes the Quantum Vacuum that is cosmology's quasi-physical “Zero-Point Field”/“Akashic Field” that is the entire physical/material cosmos. *Kosmos*, the all-embracing non-material, non-entity that is perfect ultimate subjectivity (the ontologically prior unity of all subjects and objects), is the vast primordial emptiness (*shunyata*) potential in which or in whom arises the cyclic nonlocal coherence that is the interdependent connectedness (*pratitya samutpada*) of this bright primordial aboriginal stuff becoming matter, beings, minds, stars, galaxies, and universes of the infinite oscillating Metaverse, the very unbounded whole (*cittata*), Ultimate Reality Itself. (*Kosmos* here is the Pathagorean, *Apeiron*, the divine “One,” and Supreme Good of Plotinus, the Basic Goodness of the Buddhist Shambhala teaching that enfolds, transcends and embraces the unfolding “Many” that is the sublime luminous plurality and multiplicity of the merely physical spacetime cosmos.) We must again remember that in the nondual view these two seemingly incommensurable paradigms—emptiness and form—are an interdependent prior ontic unity that cannot be conceptualized, yet can be cognized and experienced by yogic direct perception.

So, this one truth—unspeakable ultimate reality by whatever name—the “Tao that cannot be named,” is the conceptually ineffable, but not contemplatively ineffable monadic source or matrix, David Bohm's “Zero Womb” of the primordial Goddess (*jnananirovakalpa*)

that generates the force fields that give rise to all material bodies and their forces. (This rose, by any name would smell as sweet.) These forces and charges are of course, the relative particles and waves that we have come to know and love—photons (light) and bosons (force)—of the arising energy of relative spacetime reality. “What we observe as material bodies and forces are nothing but shapes and variations in the structure of infinite space” (Schrödinger).

According to our Great Wisdom Tradition, phenomena arising from this vast unbroken whole, our primordial sourceground (*prajnaparamita, gzhi, kadag, cittadhatu, dharmakaya, dharmata, chos nyid, Tao, Ein Soph*) that is perfectly subjective Ultimate Reality, Consciousness Being Itself, Absolute Spirit, in due course evolves a self-consciousness, then a witnessing presence or intelligence/ consciousness (*vidya, rigpa*) that recognizes the fundamental nonlocal, interdependently interconnected prior unity, while abiding in a relationship of identity with all of the parts. This is the process of the Platonic “eternal return” to nondual Spirit. *All arising spacetime phenomena participate in the “primordial purity” (kadag) of this vast consciousness base (gzhi), this primordial awareness wisdom (gnosis/jnana/yeshe) whose spontaneous presence (lhundrub) abides within all things and beings.* Thus, while “spacelike separation” of the participating parts of the unbroken whole obtains, there can be no *essential* separation from this vast primordial nondual emptiness, openness or oneness (*longchen, svabhava*), this ontic prior unity that is the basis or sourceground of all that arises therein.

Thus this relationship is, at once, nonlocal, interdependent and nondual. I have called the unifying principle of this transpersonal, transconceptual “one truth” the *Principle of Ontological Interdependence*. According to both the Quantum Theory and Buddhist Middle Way *Prasangika*, all arising physical and mental phenomena are causally, mereologically (part/whole) and conceptually (imputation, designation, naming) interdependent and non-separate. Again, this one truth is the nondual monistic, monadic, nonlocal coherence of the prior ontological unity of the conceptual perennial Two Truths, relative and ultimate. This unity, this “one taste” is a most profound subtle ecology of mind. This ontologically necessary yet epistemologically contingent interdependent prior unity must be the fundamental principle of any theory of ontological relativity—Alan Wallace’s Theory of Ontological Relativity or David Finkelstein’s Universal Relativity Principle (Wallace, 2003), or Bohr’s or Quine’s Ontological Relativity (p. 12)—and of any “Theory of Everything” (TOE). Clearly, the burden of rejoinder to this Principle of Ontological Interdependence lies with the physicalist/materialist/functionalist.

Let us then briefly consider the Unified Quantum Vacuum that is the zero point energy field, in its relation to this “primordially present” one truth that for the nondual Buddhist View is the “self-perfected state” of the perfect sphere of *Dzogchen*, the Great Perfection. We will then explore Buddhist epistemology and ontology through the view of the *Madhyamaka Prasangika* and its complementary, the Great Perfection that is *Dzogchen* and their potential impact upon the emerging, noetic paradigm in physics and cosmology, whose precursor is the holistic antirealist Quantum Field theory.

Ad. In. P. Cantab.

PHILOSOPHIÆ
NATURALIS
PRINCIPIA
MATHEMATICA.

Autore *J* S. NEWTON, Trin. Coll. Cantab. Soc. Matheseos
Professore *Lucasiano*, & Societatis Regalis Sodali.

IMPRIMATUR.
S. P E P Y S, Reg. Soc. P R Æ S E S.
Julii 5. 1686.

L O N D I N I,
Jussu Societatis Regiæ ac Typis *Josephi Streater*. Prostant Vena-
les apud *Sam. Smith* ad insignia Principis *Walliæ* in Cœmiterio
D. *Pauli*, aliosq; nonnullos Bibliopolas. Anno MDCLXXXVII.



Principia Dharmata: The Buddhist View of the Nature of Mind

Without past, present, future; empty awake mind.

—Mipham Rinpoche

The crux of the matter. In the *Mahayana* Buddhist view of *Madhyamaka Prasangika*—the Middle Way Consequence School of Nagarjuna (2nd century), Chandrakirti (8th century) and Tsonghapa (14th century)—even the Ultimate Truth that is fundamental great emptiness (*mahashunyata, dharmakaya*) is not a frozen absolute, that is, it is not an essentialist, metaphysical logocentric idol or “false absolute” existing unconditioned and *independently* as an unknowable “other” transcendent creator God, metaphysical essence, or some vast substrate, entity, being or thing. Emptiness is not a transcendent, deeper reality prior to arising appearing form. Rather, emptiness is a non-essential *relativized* absolute, abiding ontologically *interdependently*, as “dependent arising” or “Interbeing,” a timeless infinitely vast causal nexus of arising interconnected causes and conditions (*vasana/quantum “qubits”*). This Buddhist View is non-essentialist. There is no *essential* reality at all. Reality is merely the relative-conventional dependent arising of spacetime mental and physical forms. H.H. The Dalai Lama terms this seeming paradox the “emptiness of emptiness.”

It is important for us to avoid the misapprehension that emptiness is an absolute reality from which the illusory world emerges... it's not some kind of [entity] out there somewhere... emptiness must be understood as 'empty of intrinsic or independent existence'... form's ultimate nature... (It) does not imply non-existence of phenomena but the emptiness of phenomena... its ultimate mode of being... the basis that allows form [to] arise as emptiness.

—H. H. The Dalai Lama, *Buddhadharma Quarterly*, Fall, 2002

How then does emptiness exist? Emptiness is established by our relative conventional minds. Therefore emptiness does not exist ultimately. Again, it exists merely conventionally, as the reified, conceptually imputed dependent arising of form. Emptiness is not some deeper reality but merely the conventional, intersubjective reality of the relative spacetime things that appear. Emptiness (shunyata) does not mean nihilistic nothingness or non-existence, as we shall see.

The forms of emptiness. There is then a seminal relationship of the Buddha's Dependent Arising (*pratitya samutpada/tendril nyingpo*) of forms and their Emptiness matrix base. “Form is emptiness, emptiness is form.” Shakyamuni Buddha taught three aspects of this interdependence of form and emptiness: *causal*, all phenomena and processes depend upon prior causes and conditions; *mereological*, wholes are dependent on their parts and parts are dependent on their wholes; *conceptual imputation*, all arising phenomena and processes are real only by relative-conventional interobjective and intersubjective attribution and designation with no *inherently* real or absolute existence. Therefore all arising physical and mental forms are merely the products of our social interobjective and cultural intersubjective deep background linguistic categories of understanding. With this view of ontological relativity Bohr, Quine, Kuhn and the Neo-Pragmatists would agree (p. 12 ff). Therefore, according to

H.H. The Dalai Lama:

First, all conditional things and events in the world come into being only as a result of the interaction of causes and conditions. They don't just arise from nowhere, fully formed. Second, there is mutual dependence between parts and the whole: without parts there can be no whole, without a whole it makes no sense to speak of parts... Third, anything that exists and has an identity does so only within the total network of everything that has a possible or potential relation to it. No phenomenon exists with an independent or intrinsic identity. (H. H. The Dalai Lama, 2005, p. 64)

Therefore, all phenomena arise in dependence upon prior causes and conditions; phenomena arise in mutual interdependence of parts and wholes within the vast unbroken whole; phenomena are absent any separate, essential intrinsic existence because they exist only in dependence on all other related causes and conditions. And this absence of inherent existence or selflessness is emptiness. Phenomena really do exist relatively, but not absolutely. And again, all phenomena are dependently and conceptually designated, that is, they exist only by way of relative-conventionally reified perceptual, conceptual and linguistic attribution, imputation and designation. The relative world of form and formless form arises from our concept/belief "categories of understanding," all in the vast interdependent causal nexus of the ultimate, basal emptiness ground. Kant and Quine would agree.

Moreover, emptiness is selflessness, the absence or nonexistence of an intrinsically existing nature or self. Buddhist *Madhyamaka Prasangika* teaches of the "two selflessnesses," the selflessness of the person (*rangtong*), and the selflessness of other phenomena (*shentong*). The stabilized mind realizing emptiness—the union of *shamatha* and *vipashyanā*—is the realization of the utter absence of self-nature in all arising phenomena, both "self" and "other." This is the liberating realization of the wisdom of emptiness that is the union of the prepared relative mind with its ultimate emptiness basis or source. And this *Madhyamaka* Middle Way emptiness is none other than the Buddha Nature of the *Yogachara* school. According to his holiness the Dalai Lama there is no *essential* difference between these "two wisdoms"—that is to say, between emptiness (*shunyata*) and Buddha Nature (*tatagatagarbha*). Realizing emptiness we realize our intrinsic Buddha Nature. Realizing our Buddha Nature we realize emptiness.

The Buddha's great foundational teaching of no-self (*anatman*), impermanence (*anitya*) and interdependent arising (dependent origination/*pratitya samutpada*) are unified, then realized in these two wisdoms. And this realization is the happiness that cannot be lost (*mahasuka/paramananda/beatitudo*). Ignorance (*avidya/marigpa/ajnana*) that is Attraction (desire, greed, pride) and Aversion (fear/anger, aggression) is the non-recognition and failure of realization of these three that is the root cause of human suffering and human evil. This ignorance that is suffering then is a *conceptual* (*vikalpa*) superimposition or projection (*vikshepa*) onto our direct *perceptual* experience. Thus we "miss the mark" (*hamartia/sin*) of the timeless nondual perfection of the indwelling presence of impermanent, selfless, empty, interdependent outshining (*abhasa*) Reality Itself. The possibility of release from this ignorance that is suffering is, of course, the practice of the Buddha's Eightfold Path, as we shall see.

Cause and effect—the Principle of Causality—and its subset, karma, is possible only in a *Kosmos* whose phenomena is interdependently arisen and therefore empty of intrinsic existence. The Buddha's *Heart Sutra (Prajnaparamita-hridaya-sutra)* expresses the “fourfold profundity” thusly: “Form is emptiness; emptiness is form; emptiness is not other than form, form is not other than emptiness.” Emptiness (selflessness/impermanence) and the interdependent arising of mental and physical form are nondual, a prior unity. No emptiness, no form. No form, no emptiness.

Impermanence (*anitya*)—*gross* (long term change) and *subtle* (continuous moment to moment change)—is the truth that timeless motion or change is the only constant. We are not stable, permanent objects or entities, but inherently and radiantly empty causal processes, selfless quantum event moments (*vasana*), forever changing relative continua in the infinitely vast continuum that is ultimate Reality Itself. Experience is continuous change. From this vast matrix basis we—and our mind created spacetime reality—aggregate, arise, dwell, disaggregate and return. Full *bodhi*, full awakening is not realizing some “other” transcendent ultimate truth, being or creator godhead, abiding beyond or beneath the world of form, but seeing and knowing this interdependent, impermanent, empty, relative conventional spacetime reality exactly “*as it is.*” This primordial awareness wisdom of emptiness is always present. It is who we actually are. The realization of this is the cause of our release from, not adversity but our emotional response to adversity, that is suffering. And this freeing is the cause of both our relative and ultimate happiness.

Subtle impermanence is difficult to grasp. It is cloaked in the “cloud of unknowing” ignorance (*avidya*) that is our fear and denial of death (“We cannot overcome our death anxiety, but we can meet it with courage.” —Paul Tillich. We can meet it with the luminous clarity of clear light mind.) And from this fear comes the preconscious Attraction and Aversion that cause the negative afflictive emotions (fear, anger, greed, pride) that cause terrible suffering. Through mindfulness and the practice of the Path we remember again and again, and finally moment to moment that “samsara and nirvana are one (*samatajnana*).” We hold this awareness that our constantly changing mental life—the patter of our stream of consciousness—is the beautiful process of our intrinsic impermanence, and this need not be denied through conceptual superimposition of a false permanency. This awareness is our mindfulness. It is the powerful antidote to our fear of death. As our attachment to that illusory sense of self permanence is liberated, the primordial fearful self-contraction from being in time is released and we fully engage the adversity and diversity of the otherness of our lives. We come to relate with this “other” and with others, not as objects, but as if this all were actually us, which it is. This is the awakening to the Buddhist *wisdom of emptiness* that is our actual identity, our already awake Buddha nature.

The *bardos* (intervals) of life and death are then, a continuous unified process. Emptiness and its dependently arising phenomena—our concepts of the Two Truths, Absolute Truth and Relative Truth—are one and the same (*samata*) non-discursive unbroken whole, the transpersonal, transconceptual, discursively ineffable but not contemplatively ineffable, utterly nondual one truth.

Thus, impermanent, relative phenomena arise only interdependently from the infinite vast expanse of their prior causal nexus, the infinite potential of their emptiness base (*gzhi*) or

primordial sourceground (*cittata, cittadhatu*). This Supreme Source (*cittadhatu/kunjed gyalpo*) is Ultimate Truth (*paramartha satya*) that is Reality Itself (*dharmata/chos nyid*). This is the ultimate mode of being for all the interdependent things and beings of the spacetime dimension of Relative Truth (*samvriti satya*). Independently existing permanent phenomena, arising *ex nihilo*, from nothing, independent of prior causes and conditions is not logically or empirically possible, therefore quite unbelievable. A bit of a problem for Western and Eastern monotheism. If phenomena were really separate and independent, how could one thing effect or interact with another? This is the intractable “interaction problem” of epistemological dualism in both the East and West.

Thus, matter and Spirit, Science and Spirituality—these two seemingly incommensurable paradigms—participate together in a dialectic that is one luminous unbroken whole. And herein abides the diaphanous beauty (*aware*) of impermanent, empty, selfless, continuous change. When you really look, you can see it—the great outshining beauty of it. This is the basis of the sublime in human experience.

So, if the objective and subjective phenomena of reality do not *ultimately* exist and are *ultimately* “unfindable” after 2,500 years of philosophical, scientific and *noetic* (mind/spirit) analysis, we must ask how it is that phenomena *appear* to exist.

The question is not *whether* they exist but *how* they exist. They exist, but not in the manner in which we perceive them. They lack any discrete, intrinsic reality. This absence, or emptiness, of inherent existence is their ultimate nature...It is critical to understand that *Madhyamaka* does not say that things are absent of inherent existence mainly because they cannot be found when sought through critical analysis. This is not the full argument. Things and events are said to be absent of inherent or intrinsic existence because *they exist only in dependence on other factors*...In other words, anything that depends on other factors is devoid of its own independent nature, and this absence of an independent nature is emptiness...Nagarjuna says that things and events, which are dependently originated, are empty, and thus are also dependently designated...[He] concludes there is nothing that is not empty, for there is nothing that is not dependently originated. Here we see the equation between dependent origination and emptiness...the path of the Middle Way, which transcends the extremes of absolutism and nihilism.

—H. H. the Dalai Lama, *Buddhadharma*, Winter 2004, p. 20

How then do phenomena exist? The world is real, not from its own side, but merely nominally, by perceptual and conceptual relative interobjective and intersubjective conventional imputation and designation, the cognitive acts of sentient perceptual and conceptual living nervous systems. Kant, Wittgenstein, Quine, Habermas, Wallace and Wilber have translated this wisdom of ontological relativity for the West (p. 12 ff, p. 16 ff).

According to Buddhist scholar-practitioner and philosopher of science Alan Wallace, this “intersubjectivity lies at the very heart of the Buddhist worldview and its path to spiritual

awakening.” Buddhist soteriology sees the individual not as an *independent* ego, but as a dependent self—our relative spacetime bodymind—arising as an *interdependent* being process from a vast bright emptiness, an infinite causal nexus or matrix of prior causes and conditions. In this holistic Middle Way view the ego-I exists, as with all phenomena, not permanently nor absolutely, but only nominally and *relatively*, through its own cognition, namely conceptual imputation and designation. We have hitherto bestowed the epithet “Ontological Relativity” upon this process. *Ultimately* however, all the phenomena of reality are “empty of self-nature,” utterly devoid of any shred of essential or intrinsic existence.

Therefore, there is inherent existence neither in Being Itself, nor in non-being, nor in the spacetime dimension of Becoming. Mahayana master Nagarjuna’s “tetralemma refutation” refutes 1) reified existence, 2) nihilistic non-existence, 3) both existence and non-existence, and 4) neither existence nor non-existence. How then do the *Prasangika Madhyamikas*—Nagarjuna, Chandrakirti, Tsongkhapa, Mipham—refute the *Svatantrika Madhyamika* and the *Cittamatra* “Mind Only School” charges of nihilism and skepticism? Once again, nihilism is avoided by accomplishing the delicate balance between negating too much of reality (nihilism), and negating too little (absolutism/eternalism/substantialism).

“Existence is the view of realism. Non-existence is the view of nihilism. Therefore the wise abide neither in existence nor non-existence” (Nagarjuna/Garfield 1995). *Prasangikas* then, make no assertions as to true or false, valid or invalid, existence or non-existence. They cannot even assert that they make no assertions. For example, to assert non-existence implies an existence to negate. A radical middle way indeed. Philosophers call such arguments “*reductio ad absurdum*,” the process of formal reasoning that derives a contradiction from a set of premises, then concludes that the entire argument is fallacious.

So, dependently arising spacetime phenomena really do exist conventionally—they are established by *interdependent* relative-conventional minds—yet they are devoid of any *independent* intrinsic or absolute existence (Newland 2009). Just so, emptiness itself, the conceptual luminous basal primordial sourceground is likewise empty of inherent existence. It’s not so much that arising form is empty, but that there is only emptiness. It’s emptiness all the way up, and emptiness and all the way down. And this we know, is the “emptiness of emptiness.” Yet, there is this impetuous brightness, this luminous clarity of emptiness, as we shall see.

Thus does Buddhist Middle Way *Prasangika* avoid the skeptics and the deconstructionist charge of “logocentrism,” an absolute logos—theistic creator God, Brahman substrate—the logical contradiction that is a dualistic logocentric creator idol or *eikon* essentially separate from its creations. If God is a transcendent, independent, separate “other,” how does He interact with His creation (the “problem of evil” and the dualist interaction problem)? Therefore, the emptiness nature of nondual Ultimate Reality cannot be primordially signified. Derrida’s clamorous critique of logocentric absolutes obtains. Rather, Ultimate Reality is empty of any shred of primordially signified intrinsic essential existence. Interactions occur only in the relative conventional world of spacetime, the intersubjective perspectival dimension of Relative Truth (*samvriti satya*). His Holiness the Dalai Lama has stated that the Madhyamaka *Prasangika* is the only Buddhist school that does not reify a primordially existent, essentially real entity, whether mental/mind or fundamental emptiness itself. Emptiness is itself truly empty and cannot be a logic

creator producing logocentric spacetime stuff.

Emptiness objective and subjective. His Holiness further distinguishes between objective emptiness and subjective emptiness.³ Objective emptiness or the “objective luminosity” is a “non-affirming negative phenomenon,” the absence or negation of any independent or intrinsic existence, or independent self. But the Buddha’s Great Emptiness (*mahashunyata*) is not *ultimately* a non-affirming negative (*prasajya*). In the highest view of the nondual tantras—the view of *Prasangika*, *Dzogchen* and Highest Yoga Tantra (*Anuttara yoga tantra*)—negated phenomena appearing to a self as relative-conventional reality are replaced by subjective emptiness (*nay lug*), the *affirming* clarity and luminosity of the clear light (*’od gsal/prabhasa*), the nondual cognitive-emotive yogic direct perception (*kensho, pratyaksa*) of the experience of the presence (*vidya/rigpa*) of the pure bright clarity of the emptiness of form (H. H. The Dalai Lama, 2000). The activity of this “wisdom realizing emptiness”—with its complementary the *Madhyamaka* Great Compassion (*mahakaruna*)—is the path to liberation from suffering that is Ultimate Happiness Itself (*mahasuka/paramananda*).

So there remains, after the negation of objective and subjective gross and subtle forms encountered through the form and formless mindfulness, quiescence, introspection and insight practices, a subtler outshining luminosity as the vast expanse of the Madhyamaka Great Emptiness manifests itself interdependently as form from the “primordial purity” (kadag) of the primordial ground or base (gzhi). For Tibetan Buddhists, this fundament of clearlight ground luminosity is the ultimate nature of Reality Itself (*cho-nyid/dharmata*), the nature of primordial consciousness, our very awareness essence or Nature of Mind (*sems nyid/buddhi*). Regarding the *Dzogchen* view of this ultimate base, the three Buddha Bodies or the “*Trikaya of the Base*” that is our supreme source (*cittadhatu, kunjed gyalpo*): its *Essence* is emptiness (*shunyata*), its *Nature* is luminosity (luminous clarity/*gsal ba*), its *Energy* emanates continuously as the great *cosmic gift (jinlab)* of compassion that is light/motion/form (*tsal/rolba*) arising, and in human conduct as wisdom/compassion (*thugs re*) for the sake of all beings (p. 45 ff and Appendix A, *Dzogchen, The Great Perfection*). “Within the essence original wakefulness which is primordially pure (*kadag*) manifests the nature, a radiance which is spontaneously present” (*lhundrub*). (Mipham Rinpoche).

Thus, we must negate objective and subjective arising phenomena. But again, as Tsongkhapa reminds us (Newland 2009), we must know and correctly identify the negandum, for if we *negate too much* of this arising, appearing reality we depart the Middle Way and fall into dark nihilism (*ucchedavada*) where our compassionate ethical precepts and conduct have no basis for motivating us on our lifeworld path. Here our choices and actions don’t really matter. If we *negate too little* of this form arising from its emptiness base we fall into the opposite extreme of absolutism or eternalism (*sarvastavada*), reifying then clinging to desire-mind phenomena and failing to accomplish the liberating nondual wisdom of emptiness. Our separate self-sense, the narcissistic independently existing ego-I, is at first necessary to develop our view and ethical sense, Kant’s “moral law within us.” This sense of a permanent self at first serves as a vehicle for managing our relative conventional existence and our ostensible development or “progress” on the Path, as we have seen. “We must become somebody before we can be nobody.” We must develop some “ego strength” in order to deconstruct the ego.

³ For some finer points of this teaching see *The Nature of Mind, The Buddhist View: Sutra, Tantra and Dzogchen*, ©David Paul Boaz, 2006, www.davidpaulboaz.org.

But this self cannot be an independent, permanently existing entity. It is rather, a dependently arising, impermanent, intersubjectively relative, merely spacetime existence. Yet it is a real existence. Thus do the *Madhyamaka* schools of the *Mahayana* accomplish a Middle Way between these two destructive extremes that are absolutism and nihilism (p. 21, “Toward a Middle Way Between Modern Absolutism and Postmodern Nihilism”).

But let us remember, “*madhya*” or “middle” also connotes a negation, so the *Madhyamaka* is the Middle Way path that is no-path. Thus we cannot cling to or defend even this excellent balance that is the Middle Way lest it too become the ideology of a “false idol” of a logocentric absolute. Indeed, we have nothing at all to cling to. Yet, there is here, at the Heart this gentle brightness—mirrored by the spiritual master—a support beyond all concept and belief. It is this presence (*vidya*) that protects and sustains the practitioner on the path to the happiness (*mahasuka*) of freedom, our liberation from the ignorance (*avidya*) that is suffering.

Why is this ontological negation of the self-sense of the ego- I—the emptiness or “no-self of the individual”—so important? Because it is our defense of the Attractions and Aversions of Narcissus, this non-essential but all too real self-sense that causes the fearful negative afflictive emotions—anger/aggression/fear, pride/envy, desire/ attachment/greed that is ignorance (*avidya/marigpa*), the root cause of human suffering and unhappiness. “All the evil, fear and suffering of this world is the result of attachment to the self” (Shantideva).

The Two Truths and the Four Noble Truths. What then shall we do with this precious life we’ve been given? For liberation from the ignorance that is suffering the Buddha taught the *Four Noble Truths*. 1. *Life is filled with suffering*. There are different kinds of suffering: physical and emotional pain; the free-floating anxiety that is the preconscious fear of death; general dissatisfaction with the adversity of life; the suffering of change and uncertainty; and the suffering of the negative afflictive emotions. 2. *Suffering has a cause*. This cause of suffering is ignorance (*avidya/marigpa*) of the true nature of things as empty/selfless, impermanent and interdependent. From this arises the ego self-sense that then causes Attraction and Aversion which lead to the destructive negative emotions (fear, anger, greed, pride). 3. *There is release from suffering*. If we liberate ourselves from conscious and preconscious ignorance we liberate ourselves from suffering. 4. *The Eightfold Path* is the life practice that accomplishes this awakening liberation that transcends the flourishing that is relative happiness (*felicitas*, relative *eudaemonia*), and results in the fruition of the perfect Happiness Itself (*mahasuka*, *paramananda*, ultimate *eudaemonia*, *beatitudo*) that is Buddhahood.

In the *Prasannapada*, Chandrakirti’s great commentary on Nagarjuna’s *Exposition of the Middle Way*, we learn of the natural interrelationship of the Buddha’s Two Truths of the Middle Way that are emptiness and the dependent arising of form, and the Buddha’s Four Noble Truths. Chandrakirti reasons that, if we will first postulate the interrelated prior unity of the luminous emptiness base and its arising interdependent phenomenal appearances (“form is emptiness, emptiness is form”), we can then postulate the casual connection, the cause and effect relationship, between the first two Noble Truths—*The Truth of Suffering* and *The Truth of the Cause/Origin of Suffering*. This causal connection is the natural law of karma—thought, intention, action and effect (positive and negative imprints). Karma is, according to His Holiness the Dalai Lama, a subset of the general scientific law of causality—the Causal Principle—that governs the realm of relative-conventional spacetime reality, the reality

dimension of Relative Truth (*samvriti satya*). Thus, from ignorance (*avidya*) arises concept mind (*manovijnana*) and with it the adventitious Attraction and Aversion that causes the egoic negative afflictive emotions—fear, anger, greed and pride—and attachment to the self (*klesha-desire mind/klishtamanovijnana*) that results in the causal, karmic mental and emotional imbalances that produce the destructive behavior that causes suffering. The positive emotions of Buddhism’s Four Boundless States (The Four Immesurables)—the positive mindstates of loving kindness, compassion, joy and contemplative equanimity—result in a causal-karmic mental and emotional balance and stability that produce the behavior that causes happiness. We reap what we sow. What we give is what we get. “*What you are is what you have been. What you will be is what you do now*” (Shakyamuni, the Buddha).

Thus, according to Chandrakirti, from an understanding of the prior unity of the selfless emptiness and the dependent (interdependent) arising of form (*pratitya, samutpada*) we can understand the causal relationship between these First and Second Noble Truths. Then we may consider the possibility of a way to the final cessation of suffering—of its cause or origin—a path or bridge to liberation from this ignorance and imbalance (*avidya/marigpa/ajnana*) that is the root cause of human suffering. Thus follows the Buddha’s Third Noble Truth, *The Truth of the Cessation of Suffering*. And if this cessation is possible—and by the demonstration of the lives of all the buddhas and *mahasiddhas* of our Great Wisdom Tradition, it clearly is possible—we can then postulate the Fourth Noble Truth, *The Eightfold Path* that is the mind training prescription or program of both gradualist dualistic and nondual practice that is the spiritual path. This path (*marga/lam*) transforms (attentional plasticity) habitual, deep background intersubjective negative mental, emotional and attentional imbalances or mindstates into our indwelling natural innate transcendent wisdom of emptiness, the *Prajnaparamita*, Great Mother of all the buddhas, the “perfection of wisdom” that is the end of this ignorance that is suffering. This is the great truth that realizes and actualizes our primordial source or ground state, and beyond, to the ultimate perfection of buddhahood, perfectly awakened state and activity of being in form that is always already present and fully awake within each one of us from the very beginning. “The child knows the mother.”

The result or fruition of the Eightfold Path is the gradual (“brief moments many times”), then sudden permanent non-conceptual realization of the state of this conceptually transcendent perfection of wisdom (*prajnaparamita*)—the luminous wisdom of emptiness. This state is decidedly not mere conceptual speculation. The weight of our entire contemplative Wisdom Tradition grounds this view and path in the practice of meditative quiescence (*shamatha*), penetrating insight (*vipashyana*) and compassionate lifeworld conduct under the guidance of, and with great devotion to the spiritual master. Here the committed practitioner takes refuge in the *Three Jewels*—the living Vajra Master viewed as the *Buddha*, then the *Dharma* that is the teaching of the Buddha, and finally the *Sangha*, the Buddhist spiritual community, as well as the *rigzin sangha*, the lineage of all enlightened beings of the three times. These three generate the *la*/energy that nourishes, holds and protects the practitioner on this difficult journey to the fruit of enlightenment, the compassionate ultimate happiness that cannot be lost. “The fruit is no different at the pinnacle of enlightenment than it is at the primordial base” (Adzom Paylo Rinpoche).

According to H. H. The Dalai Lama, all states of consciousness—negative or positive—indeed all

phenomena are pervaded by this luminous clear light wisdom of emptiness that is the “wish fulfilling jewel” of Primordial Awareness Itself (gnosis/jnana/yeshe) (H. H. The Dalai Lama, 2000). From this ground it all arises, dwells, and into this it all returns, with no essential separation at all. The dynamic intrinsic awareness, this always present primordial wisdom heart presence of our “supreme source” (cittadhatu) is vidya/rigpa.

All limbs of the Buddha’s teaching have this one purpose—to lead us to the nondual primordial wisdom. It participates in and pervades all views and paths for one who is capable of accessing it... All things flow from emptiness, and return again to emptiness. This is dependent arising...the dynamic display of the mind. This is the true nature of arising phenomena, the nature of reality itself.

—Adzom Paylo Rinpoche

Let us then remember, moment to moment, wherever we go, whatever we do, the great truth that this always present wisdom presence is our actual “supreme identity.” *Tat Tvam Ami*. That I Am.

Knowing and feeling: the unity of wisdom and compassion. The Buddhist *Mahamudra*, *Madhyamaka* and *Dzogchen* traditions agree: nondual realization and perfection of the ultimate truth of the Nature of Mind (*sems nyid*), Ultimate Reality Itself (*chos nyid*), luminous emptiness (*shunyata*), Absolute *Bodhicitta* of the *Trikaya of the Base* can be accomplished neither by the ambulations of common conceptual mind, nor by reflective intellect, nor by the “attentional stability, brilliant clarity and joy” of contemplative quiescence practices, although all of these are requisite aspects or stages of the path. According to the highest or subtlest *Madhyamaka* and tantric teachings, even realized contemplative quiescence (realized *shamatha*) is not altogether free of conceptual grasping and contrivance (ignorance/*avidya*)—though it is often mistaken to be so. Mind training in reflective conceptual understanding, and also in meditative quiescence and equipoise must be unified with the compassionate heartmind of Relative *Bodhicitta* (both aspirational and active engaged)—the “mind of enlightenment”—and with the parallel wisdom of penetrating insight (*vipashyana*), attained through the noetic contemplative analysis of insight practice under the guidance of a qualified master.

*As these “two legs of enlightenment” —wisdom and compassion—are unified, habitual seeking and material and conceptual grasping at happiness, even the Great Happiness of liberation, are liberated. Now realization of the utterly unmediated awareness continuum —dynamic intrinsic awareness wisdom—that is always already present in our everyday “ordinary mind” streaming from the primordial base or ground is effortlessly and spontaneously accomplished. The ultimate perfection of this process is Buddhahood. (For extensive documentation see B. Alan Wallace, *Balancing the Mind*, 2005, p. 230, and his *The Attention Revolution*, 2006. For esoteric wholeness fundamentals see Anne C. Klein’s *Unbounded Wholeness*, 2006, and for the inseparable relationship of reflective conceptual thought to nondual mystical experience see Anne Klein’s excellent *Knowledge and Liberation*, 1998. For transforming the destructive emotions see Lama Tsultrim Allione’s *Feeding Your Demons*, 2008. For an excellent translation of Longchenpa’s teaching on the three *Dzogchen* instruction cycles see Keith Dowman’s superb *Old Man Basking in the Sun*, 2006).*

To “spiritually” recognize, then realize and perfect this vast emptiness Nature of Mind—the clear light of the mind beyond the “web of belief” that is the mind’s mere cognitive contents—is to realize the temporal impermanence (*anitya*) of ego-self in time, and the utter absence (*shunya*) of it in space. The on-going failure of realization in the former instance I have termed *objective dualism*, in the latter instance, *subjective dualism*. The normal, unhappy result is the two aspects of ignorance (*avidya*), or “missing the mark” (*hamartia/sin*). These two are *secondary ignorance* or clinging to the sense of self (the ego-I) in space and time, and *primary ignorance*, grasping at reified spacetime phenomena as substantial, permanent, eternal and absolute or ultimate (Boaz, 2004).

Therefore, according to the greater esoteric or nondual “innermost secret” Buddhist View—*Dzogchen*, *Essence Mahamudra*, *Definitive Madhyamaka* and *Saijojo Zen*—this emptiness residue of self cannot be nihilistic nothingness or utter non-being. Rather, this reality is the prior unity of emptiness and awareness that is the very ground luminosity, the potential of everything that arises. This is “The Bright” of the Upanishads (“Upanishadic Monism,” Atman Self and Brahman are One), the monadic *gnosis*, radiant essential basal clearlight mind nature itself. This then is the *knowing* aspect of liberation. As this basal Primordial Awareness Wisdom (*gnosis*, *jnana*, *yeshe*) becomes truly manifest in the lifeworld as the wisdom of kindness, and then the permanent and profound *activity* (not emotion) of loving compassion (*karuna*) for the welfare of all living beings, it becomes, in direct proportion to that, our own ultimate happiness (*beatitudo/mahasukha/paramananda*), Happiness Itself.⁴ This is the *feeling* or emotional aspect (*ishta*, *bhakti*, bliss, devotion) of liberation.

The “always already” present, indwelling innate, intrinsic and spontaneous presence (*vidya/rigpa*, *lhundrub*) of this primordial wisdom happiness is who we are now. It cannot be found outside, in the past, or in the future. This primordial dynamic intrinsic awareness is the ontic prior unity of appearance and emptiness. “Form is emptiness; emptiness is form.” Because this emptiness base (*gzhi*) or sourceground (*cittadhatu*) is utterly untainted and primordially pure, all thought and concept, even our negative emotions are apertures opening into the depth of this all pervasive primordial purity (*kadag*)—if that is, we can surrender these defiling concepts at the instant of their arising. *Indeed, the great paradox (to the relative mind) is that everything that arises from this purity of the Base is already perfectly self-liberated and utterly free of conceptual elaboration and negative emotional corruption—empty in essence, luminous clarity by nature, and spontaneously compassionate in its expression. Thus, “as it is already accomplished” we effortlessly and spontaneously “relax into it,” this very moment (Appendix D).* Such is the Buddhist Middle Way *Prasangika* view of the Nature of Mind. And this, according to H. H. the Dalai Lama, is compatible with, even complementary to the *Dzogchen* view, the former offering theoretical, the latter offering practical approaches to liberation. And it is the *Dzogchen* view

⁴ In the Middle Way (*Madhyamaka*) *Mahayana* there are three kinds of compassion: exoteric/outer, esoteric/inner, and greater esoteric or nondual “innermost secret.” The first is relative, directed toward sentient beings. The second, toward the ignorance (*avidya/marigpa*) that causes the suffering of beings. The third is absolute, the equanimity of resting in the dynamic intrinsic awareness of the nondual state of presence (*vidya/rigpa*) of the Supreme Source (*cittadhatu*). This compassion without an object is the innermost esoteric/secret unity of compassion and the wisdom of emptiness. From emptiness, compassion spontaneously arises. Through compassion, emptiness is realized. There is no essential difference. They are the same (*samata*), a prior unity.

that suggests a middle way between the seeming incommensurable paradigms of Science and Spirituality.

So, these two—luminous knowing and feeling—pervade the unity of outer, inner, secret and innermost secret (nondual) understanding of the emptiness (*shunyata*), selflessness (*anatman*), impermanence (*anitya*) and interdependence (*pratitya samutpada/tendril nyingpo*) of esoteric Buddhism's gradual yet always "already accomplished" path to liberation from the ignorance that is suffering. Such a post-metaphysical, post-transcendental understanding was perfectly expressed 800 years ago by Soto Zen Patriarch Dōgen:

Midnight. No waves
No Wind. The empty boat
Flooded with moonlight.

Somewhere in Tibet, a *Dzogchen* master softly speaks to his heart son: "Do you see it? That is what you seek. That's it."

A Glimpse of the Great Perfection⁵

The nature of mind is the unity of awareness and emptiness...
The nature of mind is clear light.

—Shakyamuni Buddha

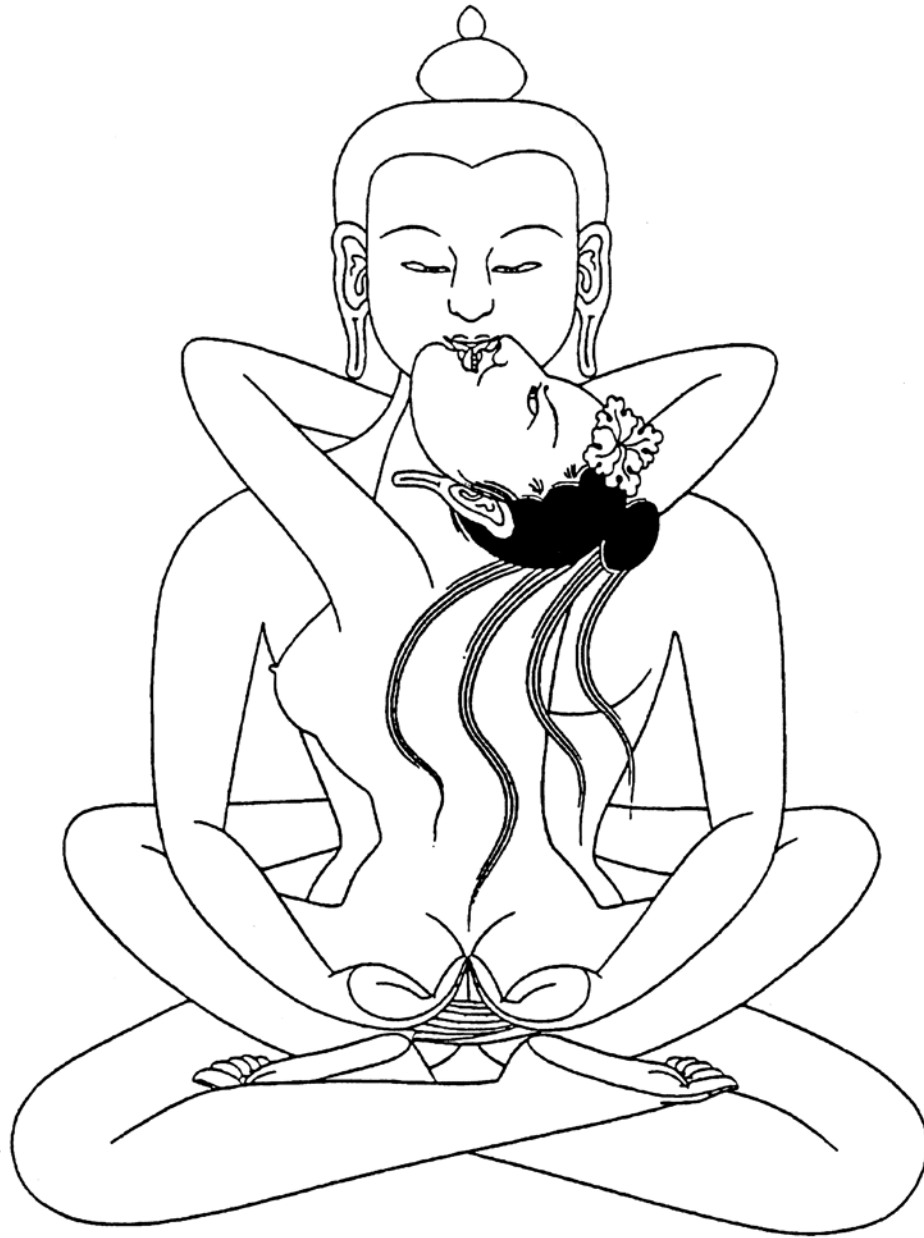
In order to lead living beings to understanding
I taught all the different *yanas*...

—Shakyamuni Buddha (*Lankavatara Sutra*)

Dharma in a cold climate: the supreme teaching. In the ancient *Nyingma* tradition of Tibetan Buddhism the traditional Three Vehicles of Buddhahood—*Hinayana/Theravada*, *Mahayana*, and *Vajrayana* are viewed as the nine vehicles to liberation/enlightenment. According to H.H. The Dalai Lama the first eight vehicles utilize our ordinary obstructed mind as the causal path to enlightenment and ultimately Buddhahood. Such renunciation and transformation takes many lifetimes. However, in the Fruitional Vehicle the mind itself is primordially pure and always already Buddha from the very beginning. This subtlest and most direct vehicle, the Ati Yoga of *Dzogchen*, the Great Perfection utilizes our already present dynamic intrinsic Primordial Awareness Wisdom as the path. This path is considered by most Buddhist masters to be the pinnacle of all of the Buddhist vehicles to liberation and may, under the most auspicious circumstances, be accomplished in a single lifetime. This wisdom is the “unchanging *rigpa* awareness” that is no other than Samantabhadra (Kuntazangpo), the primordial *Dharmakaya* (perfect body of truth, empty in essence and the very nature of mind) Adi Buddha who is our pristine fundamental original nature, our “innate mind of clear light,” primordially pure and utterly untainted by the karmic winds of conceptual thought and negative emotion (Longchen Rabjam 2007). This numinous luminous presence of *vidya/rigpa* awareness wisdom is inherently present in all human beings. Indeed, all the arising phenomena of ordinary mind always are this pristine primordial wisdom awareness. That is the actual nature of all phenomena. And that is the supreme identity of human beings, without exception. (For *A Brief History of the Dzogchen Transmission* see p. 51.)

The most important way to understand the Great Perfection is in terms of essence, nature and compassionate energy according to which the essence is primordial purity and the nature is spontaneous presence... all the phenomena of samsara, nirvana and the path are, by their very nature, the

⁵ See Appendix A and *The Buddhist View: Sutra, Tantra and Dzogchen* ©David Paul Boaz, 2006 at www.davidpaulboaz.org, and Appendix A below. ***Dzogchen* Caveat:** Contemporary *Nyingma* masters warn that the *Dzogchen* view and practice is often misunderstood to be an antinomian, nihilistic denial of reality. Thus it is urgent that the actual practices of *Trekchö* and *Tögal* not be approached without the guidance of a qualified *Dzogchen* master. This teaching cannot be learned, let alone accomplished, from books and intellectual speculation. The great and precious knowledge treasure that is the Great Perfection is decidedly not a conceptual enterprise. Although the presence of the dynamic intrinsic awareness that is the luminous Nature of Mind abides now and always in ordinary mind, the ultimate realization of That requires extensive “gradualist” tantric practice with a master, which in due course reveals the great paradox (to conceptual mind) that “it is already accomplished;” that which you seek is always already present from the very beginning. *E Ma Ho. Mahasukaho!*



*Kuntuzangpo and Kuntuzangmo, Samantabhadra and Samantrabhadri,
representing the nondual state*

rigpa awareness that is the primordial buddha Samantabhadra, and they are never outside of the primordial expanse of buddhahood... This the fundamental innate mind of clear light.

—H. H. The Dalai Lama in Longchen Rabjam 2007 p. 78

According to Sogyal Rinpoche (1992), Dzogchen is “the primordial state, the state of total awakening that is the heart-essence of all the Buddhas and all spiritual paths, and the summit of an individual’s spiritual evolution.” Therefore the practice of *Dzogchen* is the recognition, then realization of our always present inherent Buddha Nature, which is who we actually are from the very beginning.

Buddha cognition. According to H. H. The Dalai Lama, the subtlest view of the *Nyingma* lineage’s tantric Buddhist teaching is *Ati Dzogchen* (*Dzogpachenpo*, *Mahasandhi*) the Great Perfection. And the *Essence Mahamundra* of the Kagyu School, and the *Madhyamaka of the Definitive Meaning* are essentially the same as *Dzogchen* as to the View and the fruit or result, namely Buddhahood. On the *Dzogchen* view the realm of Relative Truth (*samvriti satya*)—form (objective reality) and formless form (mental and subjective experience)—arises from its primordial energy (*jnana prana*) within the perfectly subjective pristine cognition of the vast expanse of Reality Itself (*dharmadhatujnana/chos byings yeshe*). According to His Holiness Dudjom Rinpoche (1991) this unity of the absolute space of arising phenomena (*dharmadhatu/chos byings*) with primordial consciousness itself, is the luminosity of clearlight primordial awareness wisdom (*gnosis/jnana/yeshe*), utterly free of conceptual elaboration and negative emotion. This is the perfect sphere of *Dzogchen*. This Ultimate Reality (*dharmata/cho nyid*) is the *Madhyamaka* luminous emptiness (*shunyata*) that is the inherent nature of relative spacetime phenomena (*dharmal/chos*) whose apparitional or illusory face (*dharmil/cho can*) emerges from its primordial purity (*kadag*) of the emptiness base (*gzhi*) as the limited consciousness of sentient beings who perceive, then reify, then conceptually designate (*maya/ignorance/ajnana/marigpa*) these appearances as the seemingly substantial phenomena of a reified, imputed, permanent, absolute and substantial everyday intersubjective relative-conventional reality. Yet all such instantiation of phenomenal consciousness is “always already” illumined by the radiant original face of this primordial awareness wisdom (*jnana/yeshe*) that is their (our) intrinsic actual nature, the very nature of mind (*cittata/sems nyid*). And That (*Tat/Sat*) is not other than the perfect sphere of *Dzogchen*, the Great Perfection.

In this profound and subtle “practice of Ati Yoga, which is also secret such that only the fortunate can understand it,” Buddhahood (Buddha-nature/*buddhadhatu*) is accomplished, according to His Holiness Dudjom Rinpoche, when the fundamental, primal intrinsic awareness (*vidya/rigpa*) of the Buddha Body of Reality Itself (*dharmakaya/chos-ku*) is liberated, exactly as it is, directly here and now through the continuity of recognition—“brief moments many times”—realization and perfection of the primordially pure body of Samantabhadra (*Kuntazangpo*), the *Dharmakaya* Buddha, who is none other than the pristine cognition of the supreme reality that is *dharmadhatu*, the vast Absolute Space of all phenomena, beyond belief, always already present as whatever arises in this very moment now, here in this very human body of light (*rang rig/rang rigpa*). In the words of great 14th century *Nyingma* master Longchen Rabjam (Longchenpa):

“Naturally occurring timeless awareness—utterly lucid awakened mind—is something marvelous and superb, primordially and spontaneously present. It is the treasury from which comes the universe of appearances and possibilities, whether samsara or nirvana. Homage to the unwavering state, free of elaboration.”

—Longchen Rabjam (2001)

This clearlight (*'od gsal*) absolute space (*chos byings*) of phenomena that is Ultimate Truth (*paramartha satya*) must not be conflated with the material, contingent relative dimension of spacetime that arises within and through it. The prior unity of these conceptual “Two Truths” that is the nonconceptual all-embracing one truth, the perfect nondual sphere of *Dzogchen*, is ontologically prior, subsuming, transcending yet embracing and pervading the physical and mental spacetime dimension, including the “space particles” of the ground state of the quasi-physical Unified Quantum Vacuum. *The great paradoxical (to concept-mind) conclusion then is this: ultimately there is no difference! In the pristine cognition of equality—Buddha cognition (samatajnana/nyam-nyid yeshe—the Two Truths are equal. One and the same. An ontic prior unity. The primal duality of the conceptual binary that is the Two Truths is resolved in this one great, conceptually ineffable but not contemplatively ineffable nondual truth. “There is not the slightest difference between samsara and nirvana” (Nagarjuna).*

The Unified Quantum Vacuum and the Great Perfection. Thus, from this ultimate view, the Zero Point Energy of the Unified Quantum Vacuum arises from the *alayavijnana*, the substrate consciousness that arises from the primordial wisdom consciousness (*jnana/yeshe*) that is not other than the emptiness base (*gzhi*), the *Trikaya* of the Base. And from this Quantum Vacuum arises *citta/sems*, the human bodymind along with the *kosmic* gift that is the entire spacetime mansion of Relative Truth (*samvriti satya*). These are the three consciousness dimensions—*citta, alaya and jnana*—of the Indo-Tibetan Buddhist view. O wonder of wonders, all beings are Buddha, *samsara* and *nirvana* are One! And all this, always here, now outshines perfectly just as it is, the natural state, ordinary “natural mind” the very nature of your (our) mind. So, as we surrender (*wu-wei, pistis/faith*) and relax into it, great joy (*mahasuka*). Nothing special (*wu shin*). *As we begin to see this post-transcendental, post-metaphysical, “ordinary mind” as the vast numinous primordial nature of reality—the very Nature of Mind—we wake up. “Now we spontaneously generate the love that is truly a refuge for all living beings.” (Vimalakirti).*

Again the great omniscient master Longchenpa transmits to us this supreme primordial wisdom (*gnosis, jnana, yeshe*) that is this very nature of mind (*citatta, sems nyid*), of *Kosmos*, of the vast infinite expanse of Reality Itself (*dharmata, cho nyid*).

Self arising wisdom is *rigpa* that is empty, clear and free from all elaboration, like an immaculate sphere of crystal... It does not analyze objects... By simply identifying that non-conceptual, pristine, naked *rigpa*, you realize there is nothing other than this nature... This is non-dual self-arising wisdom... Like a reflection in a mirror, when objects and perceptions manifest to *rigpa*, that pristine and naked awareness which does not proliferate into thought is called the inner power (*tsal*), the

responsiveness that is the ground (*gzhi*) for all the arising of things... For a yogin who realizes the naked meaning of Dzogpachenpo, rigpa is fresh, pure and naked, and objects may manifest and appear within rigpa, but it does not lose itself externally to those objects.

—Longchen Rabjam, *The Treasury of the Dharmadhatu* (Commentary), Adzom Chögar edition (quoted in H. H. the Dalai Lama, *Dzogchen*, 2000)

Basic Principles. According to recent Tibetan *Dzogchen rime* master Tulku Urgen Rinpoche, the two innermost principles of *Dzogchen* are Basic Space (*dharmadhatu/chos byings*) and Awareness (*vidya/rigpa*). This Basic Space is pregnant luminous emptiness, the unity of emptiness (*shunyata*) and the clearlight luminosity (*'od gsal*). In *Dzogchen*, the innermost secret realization of Basic Space is *klong*, the infinite “vast expanse” of Reality Itself, transcending all conceptual elaboration, judgement and bias, beyond even the subtlest subject-object duality, beyond objective and subjective emptiness, beyond ground and path luminosity (Boaz, 2004).

As space pervades, so awareness pervades... like space, rigpa is all-encompassing... Just as beings are all pervaded by space, rigpa pervades the minds of beings... Basic space is the absence of mental constructs, while awareness is the knowing of this absence of constructs, recognizing the complete emptiness of mind essence... The ultimate dharma is the realization of the indivisibility of basic space and awareness [that is] Samantabhadra.

—Tulku Urgyen (*As It is*, Vol. I, 1999 and *Rainbow Painting*, 1995)

So Basic Space and Primordial Awareness Wisdom are a prior ontological unity. Emptiness and the clear light are a unity. According to the Third Dodrupchen Jigme Tenpe Nyima “the *rigpa* taught in the *Nyingma Dzogchen* approach and the wisdom of clear light (*Mahamudra/Anuttara-yoga-tantra*) are one and the same.”

In *Dzogchen*, on the basis of the clear light itself, the way in which the clear light abides is made vivid and certain by the aspect of *rigpa* or knowing. That is free from any overlay of delusion and from any corrupting effect due to conceptual thoughts, that will inhibit the experience of clear light... It is not accomplished as something new, as a result of circumstances and conditions, but is present from the very outset. . .an awareness that can clearly perceive the way in which basic space and wisdom are present. On the basis of that key point, the realization of clear light radiates in splendor, becoming clearer and clearer, like a hundred million suns... Here the aware aspect of clear light or effulgent *rigpa* (which arises from essential *rigpa*) is stripped bare and you penetrate further into the depths of clear light... even as objects seem to arise... It is on the basis of this that you train.

—Third Dodrupchen Jigme Tenpe Nyima (quoted in H. H. The Dalai Lama, *Dzogchen*, 2000.)

The Supreme Source. A primary *Dzogchen* tantra, *The Kunjed Gyalpo (The Supreme Source)*, must surely be considered one of humankind's great spiritual treasures. According to *Dzogchen* master Chögyal Namkhai Norbu, this prehistorical supreme nondual teaching has been transmitted from master to disciple directly, heartmind to heartmind, for thousands of years. However, historical *Dzogchen* wisdom dates from the teaching of Garab Dorje (b. 55 CE). The *Kunjed Gyalpo* tantra arises in the 8th Century and is the fundamental tantra of the *Dzogchen semde* (mind) teaching series. This reading of the great nondual primordial *Dzogchen* teaching is derived from Buddhist sutra and tantra understanding of the ultimate Nature of Mind, yet its truth essence runs, like a golden thread through the grand tapestry of humankind's primordial Great Wisdom Tradition. *Kunjed Gyalpo, The Wise and Glorious King* is Samantabhadra (clarity) and Samantabhadri (emptiness) in inseparable *yabyum* embrace— androgynous skylike primordial Adi Buddha—the union of clarity and emptiness that is none other than our original Buddha Nature, Supreme Source, Basis, primordial womb of everything. Sambantabhadra, this *Dharmakaya* Buddha speaks to the *Logos*, *Vajrasattva*, *Sambhogakaya* Buddha:

The essence of all the Buddhas exists prior to samsara and nirvana... it transcends the four conceptual limits and is intrinsically pure; this original condition is the uncreated nature of existence that always existed, the ultimate nature of all phenomena... It is utterly free of the defects of dualistic thought which is only capable of referring to an object other than itself... it is the base of primordial purity... Similar to space it pervades all beings... The inseparability of the two truths, absolute and relative is called the 'primordial Buddha'... If at the moment the energy of the base manifests, one does not consider it something other than oneself... it self-liberates... Understanding the essence... one finds oneself always in this state . . .dwelling in the fourth time, beyond past, present and future... the infinite space of self-perfection... pure dharmakaya, the essence of the vajra of clear light.

—Chögyal Namkhai Norbu, *The Supreme Source (Kunjed Gyalpo)*, 1999

Thus do the sutras and the tantras of Buddha's teaching and the bivalent dualities of the path—objective and subjective, self and other, observer and data, true and false, relative and ultimate—abide in the prior unity of the dependently arisen perfect sphere of *Dzogchen*, the Great Perfection, ultimate mind nature, luminous innate clearlight mind that is always already the unity of awareness and emptiness, and of clarity and emptiness. Who is it, that I am? All the masters of the three times have told it. This infinite vast expanse of the primordial awareness wisdom continuum is who we actually are. *Tat tvam ami. That, I Am! That* is our supreme identity, great perfection of our always present Buddha Nature, deep heartseed presence of ultimate happiness that is both origin and aim of all our seeking.

H. H. Dudjom Rinpoche's Comments on Garab Dorje's *Three Vajra Verses* or *The Three Essential Statements* that are the *Dzogchen* View, Meditation and Conduct (translated by John Reynolds):

Verse I: Recognize your own true nature (The Base and View) "This fresh immediate awareness of the present moment, transcending all thoughts related to the three times (past, present, future), is itself that primordial awareness or knowledge (*yeshe*) that is self-originated intrinsic awareness (*rig pa*)." From this View arises the *Semde* teaching cycle.

Verse II: Choose the state of presence, beyond doubt (The Path and Meditation) "Whatever phenomena of *samsara* or *nirvana* may manifest, all of them represent the play of the creative energy or potentiality of one's own immediate intrinsic awareness (*rig pa'i rtsal*). One must decide upon this unique state for oneself and know that there exists nothing other than this." From The Path and Meditation arises the *Longde* teaching cycle.

Verse III: Continue in the state with confidence in liberation (The Fruit and Conduct) "Whatever gross or subtle thoughts may arise, by merely recognizing their nature, they arise and self-liberate simultaneously in the vast expanse of *Dharmakaya*, where Emptiness and Awareness are inseparable (*gsal stong gnyis med*)." From the Fruit and the Conduct arises the Secret *Upadesha* (*Mengagde*), or heart essence (*nyingthig*) teaching cycle.

The Six Vajra Verses of Vairochana

These *Three Essential Points* (*The Three Vajra Verses*) of the essence, nature and energy of the Base, and of the Path and Fruition of it is contained in Vairochana's early *Dzogchen* tantra, the *Six Vajra Verses*, or "Cuckoo of the State of Presence" (*Rig-pa'I khu-byug*), the luminous presence of intrinsic awareness (*rig pa*) that each one is. The cuckoo is the sacred bird of the *Bonpo* founder Shenrab Miwo and is considered in the aboriginal *Bon* tradition as the king of birds, harbinger of spring and bearer of wisdom from the vast empty space. These early *Six Vajra Verses* of Vairochana and all of the hundreds of *Dzogchen* tantras and texts that followed are but commentaries on Garab Dorje's *Three Vajra Verses* or *The Three Essential Statements* (or points).

The Six Vajra Verses (translated by Chogyal Namkhai Norbu):

Verse 1 & 2: The Base (View): The nature of phenomena is non-dual (*gnyis med*), but each one, its own state, is beyond the limits of the mind (*semde*, mind meditation series).

Verse 3 & 4: The Path, Way of Practice (Meditation): There is no concept that can define the condition of "what is," but vision nevertheless manifests: all is good (*longde*, space meditation series).

Verse 5 & 6: The Fruit, Result, Way of Being in Action (Conduct): Everything has already been accomplished, and so, having overcome the sickness of effort (spiritual seeking), one

finds oneself in the self-perfected state: this is the meditation, *mengagde/upasheda*, secret essence meditation series.

And from Jigme Lingpa, author of the *Longchen Nyingthig Heart Essence of the Vast Expanse*, on the nondual *Dzogchen* view at play in the world:

No Buddhas, no beings,
beyond existence and non-existence
Intrinsic Awareness Itself
is absolute Guru, Ultimate Truth.
By resting naturally, beyond fixation
in that inherently free
perfect innate Bodhi-mind,
I take refuge and actualize Bodhicitta.

–Jigme Lingpa, *Longchen Nyingthig*

“The perfect explanation of *Dzogchen*,” according to Chögyal Namkhai Norbu is voiced in these profound words of Gautama Shakyamuni, our historical *Nirmanakaya* Buddha:

All that arises
is essentially no more real
than a reflection,
transparently pure and clear,
beyond all definition
or logical explanation.
Yet the seeds of past action,
karma, continue to cause further arising.
Even so, know that all that exists
is ultimately void of self-nature,
utterly nondual!

A Brief History of the Dzogchen Transmission

The nature of mind is Buddha from the beginning.

–Garab Dorje

In Uddiyana (Orgyen) in the second century CE, **Garab Dorje** (b. 55 CE), the human historical founder of *Dzogchen*, in his *Sambhogakaya* form, transmitted the great *Dzogchen* teaching to his heart son **Manjushrimitra** (*The Three Essential Statements* or *Three Vajra Verses*) who then classified these texts (the *Dzogchen Nyingthig*) and transmitted them to **Srisimha** who then transmitted them to **Jnanasutra**, **Guru Padmasambhava**, (the *Khandro Nyingthig*), **Vimalamitra** (the *Vima Nyingthig*), and **Vairochana** (*The Cuckoo of the State of Presence*). Vimalamitra and Padmasambhava then brought the teaching from Uddiyana to Tibet in the

8th century CE, at the invitation of King Trisong Detsen. In the 14th century they were synthesized by **Longchenpa** (Longchen Rabjam 1308–1364) as the *Seven Treasuries (Dzodun)*, *The Trilogy of Finding Comfort and Ease*, *The Trilogy of Natural Freedom*, and *The Three Inner Essences*. In the 18th century **Jigme Ling Pa** (1730–1798) rediscovered the complete *Dzogchen Nyingthig*, including the above works, as a root mind *terma* (*gong ter*) and condensed its essence as the *Yonten Dzod* which is now known as the *Longchen Nyingthig* and is generally considered the authoritative expression of the Nyingma School's great *Dzogchen* tradition. *Nyingthig* means heartmind essence. Esoterically, the *Longchen Nyingthig*, the *Heart Essence of the Infinite Expanse* contains the precious heart essence of *Dzogchen*. It contains the innermost secret pith instructions, the *upadesha* (*mengagde*) and is transmitted from master to individual disciple directly, from heartmind to heartmind. The student prepares for this ultimate teaching by completing the foundational practices (*ngöndro*) before entering the secret pith instruction of the *mengagde* that includes the *Trekchö* and *Tögal* teaching cycles.

The *Nirmanakaya* Buddha Garab Dorje initially received the *Dzogchen* teaching as a direct transmission from the *Dharmakaya* Buddha **Samantabhadra** (*Kuntuzangpo*), the primordial *Adi* Buddhi, through the *Sambhogakaya* Buddha **Vajrasattva**, from whom emanates all spacetime historical (*Nirmanakaya*) Buddhas. Indeed, it is taught by some *Dzogchen* masters (Tulku Urgyen) that the ancient *Dzogchen* teaching was transmitted to Garab Dorje by the historical Buddha Shakyamuni (usually 563–483 BCE), the twelfth of the twelve great *Dzogchen* masters, in his *Sambhogakaya* form as Buddha Vajrasattva (Tulku Urgyen, 1995).

From a relative doxographic and historiographic view early historical *Nyingma Dzogchen* was formatively influenced primarily by the Indian Buddhist *tantras*, but also by Taoist *Ch'an*, indigenous Tibetan *Bon*, Tibetan Nestorian Christianity and Kashmiri *Shivaism* (Chogyal Namkhai Norbu 1996, Reynolds 1996).

The preceding is historiographic evidence based upon extant texts from the 8th through 10th centuries CE, and from recently discovered texts at *Tun Huang*, China (the *Rig Pa'i khu byug* and the *Bas Pa'i rgum chung*). However, according to certain *Dzogchen tantras* the *Dzogchen* lineage includes “the Twelve Teachers of *Dzogchen*” (Dodrupchen Rinpoche, *Tantric Doctrine According to the Nyingmapa School*). Not all of these masters were of the spacetime human realm. Some of these prehistoric teachers pre-date even the ancient *Nirmanakaya Bon Dzogchen* master Shenrab Miwoche (Tonpa Shenrab Miwo) who taught *Dzogchen* in *Olmo Lung ring* (Central Asia) circa 1600 BCE, long before the incarnation of the Shakyamuni, the historical Buddha (Namkhai Norbu, in Reynolds 1996). From there the teaching spread to Orgyen/*Zhang Zhung* and then Tibet. Indeed, the *Grathal gyur tantra*, and other texts teach that the great nondual primordial *Ati Dzogchen* teaching, by whatever name, has appeared in inhabited star systems throughout the *kosmos* for many *kalpas*, long before the appearance of our solar system, and will continue long after its death.

Thus it is, for the *Nyingmapa*, and many other Buddhists, and non-Buddhists, the nondual primordial *Dzogchen* teaching is the pinnacle of all spiritual teaching, and its view is therefore most relevant to the task of unifying the two seemingly incommensurable paradigms—Science and Spirit/spirituality—as we embark upon the new Noetic Revolution in religion, science and culture.

IV

The Quantum Revolution

The progress of science has now reached a turning point. The stable foundations of physics have broken up... Time, space, matter...all require reinterpretation.

— Albert North Whitehead (1965)

Prelude: It's only physical. Prior to the 16th and 17th century discoveries of Copernicus, Kepler, Galileo, and Newton, humanity's worldview was essentially subjective. The early Greek, Hebrew, Hindu and Chinese traditions as well as indigenous shamanism, were all based upon speculative subjective metaphysical systems with no organized objective methodology—no science. The Taoists, the early Buddhists, the Hindus, Roman Cynics and Stoics, and Plato all metaphysically speculated. Aristotle, Ptolemy, Plotinus and Nagarjuna speculated, classified and qualified. But the Copernican Revolution quantified. The history of Western science and philosophy may be viewed from an integral, noetic perspective as an objectivist/rationalist epistemological quest for the grail of absolute objective certainty, an Aristotelian strategy to “save the appearances” from the spectre of Platonist and Neoplatonist transcendence, unity and spirituality. The Platonist Whitehead famously quipped, “The history of Western philosophy is a footnote to Plato.” Since Descartes, the great contemplative knowledge paradigm that included the Greek Hermetic, Hebrew Kabbalistic, and Eastern wisdom traditions has been sacked in a zealous Apollonian objectivist quest to measure and quantify everything. The primordial unity of the knowing subjective observer-perceiver and the apparently separate perceived object was thereby formally split into the duality of objective observer and that “other” object observed.

From about 1600, Western science and philosophy have assumed—without empirical proof—the metaphysical dogma that all appearing reality is only physical (monistic Physicalism or Materialism), and that it is somehow separate from the mental and spiritual dimensions of our nature. This question begging dogma is derived from the 17th century Cartesian presumption of an inherent eternal dualism between mental ideas and physical objects; the notion that a representational medium or veil, a “mirror of nature” (Rorty) forever separates the subject/self from an external, objective physical world. Epistemologists and philosophers of science refer to this dogma of the “myth of the given” as foundational epistemological Realism—of which massmind naïve realism and mechanistic Scientific Realism (Scientism) are species—which represents an absolute epistemological dualism of separate independent subject and observed object, observer and data, appearance and reality, matter and spirit, all the way into subatomic particles (plus charges and minus charges), the presumed ultimate constituents of phenomenal reality. By 1900 it was assumed in the West, in both common and high culture that the whole of appearing reality could be neatly reduced to little purely physical subatomic billiard balls whose behavior could be perfectly described and deterministically predicted by the sovereign classical mechanics of Sir Isaac Newton.

The Ultraviolet Catastrophe

Only the whole is completely objective.

—William Earle

Then, suddenly and without warning, the “ultraviolet catastrophe” struck the great theoretical estate that was the Modernist objectivist scientific worldview. In 1900, German theoretical physicist Max Planck made a world shattering discovery. Transcending his “scientific” objectivist predilections, Planck correctly formulated the mathematical description of ultraviolet radiation emitted from a perfect “black body” absorber proving that energy was absorbed and emitted, not in a continuous wave of electromagnetic energy as Thomas Young’s wave theory (1801) required, nor in a *continuous* stream of individual atoms as the classical, billiard ball theory of Aristotelian and Modernist atomic *continuity* required, but in a *discontinuous* emission of photons as discrete particle-like energy “packets,” which he named “quanta.” All sub-microscopic phenomena—including not only photons, but electrons—exhibit such quantization. Indeed, in 1924 Prince Louis de Broglie proved that such quantization obtains not only at the subatomic level, but at the atomic level as well. This fundamental “graininess” of all physical reality has profound implications for the development of microphysics, cosmology, epistemology, and metaphysical ontology.⁷

Yet particles in motion also need Young’s related wave motion to fully describe their subatomic behavior. Thus energy or light was proven to be both particle-like and wave-like, a paradox that collapsed the old classical physics of Aristotle, Galileo, Descartes and Newton. Planck’s great discovery became the foundation of the new, post-classical, postmodern, non-determinist and non-objectivist Quantum Field Theory, and won him the Nobel Prize in 1918.

In the first decade of the 20th century, Niels Bohr replaced the Rutherford atomic model with his own, which explained the other two nails in the coffin of Newtonian mechanics, namely the hitherto dubious physical existence of the atom, and the problem of discreet atomic spectral emissions. But by 1925 it was clear that the strict determinism of classical Newtonian mechanics was inadequate to explain the apparent dual wave/particle nature of light. In 1905—the prolific year he developed and published the Special Theory of Relativity—Einstein firmly established the particle-photon nature of light using it to explain the photoelectric effect, for which he was awarded the Nobel Prize in 1921. Newton’s theory of light was also a particle theory. As noted above, Thomas Young had previously established the wave-like nature of light with his ingenious, double-slit experiment in 1801. Thus, by 1925 the dual wave-particle nature of light was firmly established in modern and contemporary physics. However, recent particle physics is trending toward a wave theory of light (footnote 16, p. 114)

⁷ Planck demonstrated that both the “ultraviolet catastrophe,” and another nail in the coffin of Newtonian physics, the photo-electric effect, could both be explained by his new “quantum of action,” that the atomic vibrational energy of a photon is quantized arising in multiples of discrete “wave packets.” This discovery is nothing less than a new constant of nature, namely Planck’s Constant (h). The equation is $E=hf$ where E is atomic vibrational energy, f is frequency, and h is the new fundamental constant of nature (6.6×10^{-34} joule seconds) a minuscule quantity of measure of the microphysical graininess of the physical cosmos. If this tiny constant were zero the universe would be not granular, but smooth and continuous, the continuity of Aristotle, Galileo and Newton.

Well, which is it, wave or particle? The western logical canon states as its Law of Excluded Middle that “Either A or not-A” (contradictories cannot both be false) p. 71. So which is it? Bohr’s Principle of Complementarity of the Quantum Theory replies that it is both. But how can a point-like particle be a wave spread out in space? Before a measurement, light is wavelike and demonstrates wave interference. Upon measurement, light behaves like a point-like particle. Again, to fully understand the behavior of light we need both wave and particle descriptions and equations. Thus the behavior of light is not contradictory, it’s complementary. Richard Feynman, great liberator of quantum electrodynamics (QED) on the quantum theory: “Anyone who thinks they understand quantum mechanics should have their head examined.” Physics just gets weirder and weirder.

Being and Time: Newton, Einstein, Heisenberg and Dōgen

Things don’t happen in time; time exists because things happen.
—Jay Garfield

Continuing our very brief history of time, in 1905 Einstein published his *Special Theory of Relativity*, and in 1915 his *General Theory of Relativity*. In 1924 de Broglie discovered that matter has a wavelike character. These great discoveries led in 1926 to Max Born and Erwin Schrödinger’s 1926 ingenious wave equation and the development of *Wave Mechanics* where the electron becomes a probability wave. Werner Heisenberg’s 1927 formulation of *Matrix Mechanics* (a particle mechanics) with its catastrophic (to classical dualistic subject-object determinist objectivism) *Uncertainty Principle* (the Principle of Indeterminacy) led to Niels Bohr’s *Principle of Complementarity*. Together these two quantum mechanical principles comprise the “Copenhagen Interpretation” of the Quantum Field Theory which demonstrates an inherent duality and atemporal subjectivity at the very heart of physical reality. This duality is the behavior of matter (the position and momentum of its ultimate particles), and its physical constitution (light wave or particle?) Thus ended 400 years of classical and modernist, material realist, objectivist physics with its objective linear—directional and durational—arrow of time, and 2500 years of deterministic epistemological and ontological materialist and realist dualistic separation of relative appearances from ultimate reality, of spacetime matter from the immediate now of its conceptually but not contemplatively ineffable, perfectly subjective timeless sourceground.

All of this made Albert Einstein very unhappy. He expressed his, and our consternation to his friend and colleague physicist Max Born in 1948: “If one abandons the assumption that what exists in different parts of space has its own, independent, real existence, then I simply cannot see what it is that physics is meant to describe.” Einstein was an inveterate defender of Scientific Realism.

The Quantum Revolution with its antinomies has now firmly established the need for a new global nondual Noetic Revolution that began with the great Second Century sages Nagarjuna in the East, and Plotinus in the West.

The end of time. *These two great principles of the Quantum Theory—uncertainty and complementarity—have effectively demolished foundationalist epistemological and Scientific Realism: namely absolute time, absolute space, and the purely objectivist linear Principle of Causality of the*

classical, Newtonian Modernist Enlightenment worldview, and with that the perennial ontic dualism of appearance and reality, of perceiving/knowing subject and its separate perceived object, of spirit and matter, mind and body. Particles are no longer separate. Observer and observed are no longer separate. Devotee and nondual godhead are no longer separate.

Einstein's classical Special and General Relativity assume that Aristotle's uncoupled absolutes of time and space are the spacetime continuum, the theoretical unity of time and space. Heisenberg's post-classical Post-Newtonian Quantum Theory expresses the left-brain exoteric philosophical truth that the observing subject and the object observed arise not *independently*, separately in time, but as a timeless atemporal relationship of *interdependence* (Buddhist *pratitya samutpada* or Interbeing) through acts or processes of consciousness, that is to say, acts of empirical observation and cognition (Dōgen Zenji would agree). "Subject and object are only one" (Schrödinger). "It is the theory which decides what we can observe" (Einstein). All of this is compatible with Buddhist *Madhyamaka Prasangika* and *Dzogchen* (p. 34 ff). This exoteric truth of the timeless (not eternal) subjectivity of consciousness is the analog (but not reducible to) the right brain esoteric truth of our nondual primordial Great Wisdom Tradition: *Tat tvam asi* (*That thou art*) that is our "supreme identity." That is who we actually are. Our being in time—which is what time is—is not separate from this great, vast expanse of the atemporal unbroken whole—by whatever name—our "supreme source" (*cittadhātu*) in which we all arise and participate.

Now is the time. According to our perennial Great Wisdom Tradition—including Quantum Field Theory and its scientific and philosophical descendants—the subjective observer is not separate from the object observed, but lives in a relation of interdependence with it. (This is the Buddhist *Madhyamaka* view.) We perceive such objects in what appears to be an external *objective* linear time. We've seen that this conventional flow of time, the "arrow of time" moves in a causal chain of quantum event moments (*vasana*) from past, to present to future (as codified in the second law of thermodynamics—entropy increases). *Yet, the past and the future necessarily occur now, in the present moment of our internal memory and imagination.* Time, as this "eternal present," is then internal first person subjective.

Thus our ontology of interdependence has an objective cause and effect relative-conventional level, and a subtler, direct atemporal subjective level (the Two Truths). So our *objective* experience of time is not definitive. Why? Events in time are perceptually and conceptually constituted or constructed only in relation to the process of change—relative motion—experienced *subjectively* by a sentient bodymind located in an objective relative-conventional spacetime reference frame ($t = \frac{vt}{c} = \frac{v}{c} \times \frac{L}{c} = \frac{Lv}{c^2}$). Change is the moment-to-moment causal arising, dwelling and decay of phenomenal appearance to a sentient nervous system. Time—our linear sense of time—is then, a sensory-conceptual imputation, superimposition or projection (*vikshepa*) upon this vast transrational perfectly subjective timeless *process* of change, of changeless Being Itself always in process of being becoming. Parmenides and Heraclitus together at last!

Einstein's Special Relativity and our Great Wisdom Tradition agree: contrary to Galileo's and Newton's classical mechanics, there can be no objective, universal or absolute time independent of, or unrelated to relative, conventionally arising phenomenal particulars. I have termed this situation or process Ontological Interdependence. Thus, the non-relativized

absolute objective time of classical mechanics—from Aristotle to Newton—is a logocentric “false absolute.” Or at least an absolute that has been relativized. So time is no longer “out there.” Time is “in here,” in the mind of the beholder. Time is subjective and relative conventional.

“Being is time” (Dōgen Zenji). For *Soto* Zen Patriarch Dōgen (1200-1253), who represents a Middle Way *Madhyamaka* Buddhist view, time is change. Time is merely the relative conventional change or movement of energy of dependently arising particulars. Time is not an unchanging universal absolute. All objects, events and beings arising in time abide in their singular “being-times” without ever departing the vast “Being-Time” (*Uji*) that is the emptiness sourceground of the primordial unbroken whole of infinite timeless Being Itself. In Being-Time phenomenal existence is selfless (*anatman*), impermanent (*anitya*), and empty of inherent existence (*shunyata*). Yet its particulars—interdependent being-times—are relative and conventional, abiding in the spacious vast expanse of the *kosmic* “eternal now” of the present moment, have a past and a future, and are capable of interacting. Thus Being-Time is arrayed throughout *Kosmos* (that transcends yet includes physical cosmos) as the “three times,” past, present and future. So, the cosmic egg requires a *kosmic* chicken. The present has meaning only relative to a past and a future. This “eternal now” of the present moment abides for us in a past/future context that bestows meaning. Each moment is meaningful only in relation to what came before, and to what happens next. There is no transcendent anything beyond this present tripart Being-Time moment here, now. There is nothing to seek and nothing to realize (*wu-wei*) beyond this always present presence that is our own relative-conventional being-time (form) that is the ultimate emptiness of vast Being-Time. Thus may we fully engage this perfection of the here/now world “just as it is.” And it is this perfection of the world, exactly as it is, that is the Ultimate Truth, nondual absolute reality itself (*paramartha satya*). Being awake is simply to see this, right now, each direct perception of interdependently arising phenomena, prior to any conceptual superimposition upon it. Thus is self-grasping and self-cherishing with its subject/object dualism and the suffering that follows therefrom, liberated. And this, it is told, is the secret or cause of both relative and ultimate happiness. “So leave it as it is and rest your weary mind, all things are perfect exactly as they are” (Shakyamuni Buddha).

So, being *is* time (motion/change). But time is not a logocentric absolute existing in an independent, separate objective reality. The relative-conventional particulars that are Being-Time participate in a relation of identity and are not separate from their nondual supreme source (a nontheistic panentheism). All such individual being-times are located in space and are conceptually imputed relative “flashings into existence.” Time abides in the mind of the perceiver. Just so, space. Space is not absolute, it is empty of any intrinsic existence, and it is conceptually designated and fabricated by a cognizing mind. Such is the nondual wisdom of the great Zen master Dōgen (1986).

According to Buddhist Middle Way wisdom, the interval/*bardo* of this subjective *now*, the Being-Time of the present cognitive moment abides in the all-embracing infinite Primordial Awareness Wisdom (*gnosis, jñana/yeshe*) as the “fourth time” (*turiya*), a potential, usually cognitively unrealized state of being (*turiyatita*) that is the already present immediate, timeless witness presence (*christos, atman, vidya/rigpa*) of this infinite expanse of nondual Ultimate Spirit that we “always already” actually are, here and now and nowhere else. *This*

fourth time, the moment now, unconceived, is an emptiness of perceiver and perceived.

“All phenomena are merely metaphorical” (Goethe). Remembering the paradigmatic “Two Truths” of the one truth that is transconceptual nondual ultimate Reality Itself we’ve seen that in the Buddhist *Madhyamaka* (Middle Way) view (*Prasangika* and *Dzogchen*) the present experience of spacetime reality particulars in our mindstream, although objectively “real” by our conventional conceptual designations (*namarupa*, naming of forms, etc.), is heuristic and “merely metaphorical” — it has no *independent*, separate, objective existence. All relative conventional spacetime relationships among events and beings are fundamentally, mutually *interdependent* and interactive, coemergent, coextensive and interconnected, situated together in *Relationship* (*hetu, tendril, pratyasamatpada*), a context or ultimate causal matrix sourceground of radical, timeless, perfectly subjective primordial openness/emptiness (not nihilistic, atheistic nothingness). Here there can be no logocentric ontological First Cause, and no metaphysically “pre-given world” of physical material reality existing separately and independently of an observer, and of the causes and conditions of everything else.

Implications of this astonishing result for the realist-idealist duality, the freedom-determinism duality, the “explanatory gap” that is the subject/object duality of the “hard problem of consciousness,” and for an integral *noetic* epistemology and science are profound: appearance and reality, form and emptiness, + and - values, subject and object, self and other, God and humanity, *all the apparent binary dualities of contingent existence in spacetime are already a spacious timeless perfectly subjective prior unity!* The two complementary streams of any binary — of all conventional dualistic reality — meet and merge in nondual radically open emptiness (*shunyata*), Tao, *Nirguna* (empty of attributes) *Brahman*, the Gnostic Depth (*Bathos*) of the still, unmoved, unbroken whole prior to any arising. This vast fullness/depth is the ground of the Quantum Vacuum and of Bohm’s “Zero Womb,” the womb-source of Great Goddess Mother (*jnananirovakalpa*), infinite Feminine Principle, clarity of the “sky-like” ground of being, the basal nondual Primordial light of Awareness “primordially present” in each individual heartmind (*hridayam*), here, now. This is the nondual View of the traditions. How to we awaken to this presence? According to the Buddhas and mahasiddhas of our Great Wisdom Tradition — those who know — we take this View and engage both the analytic rational and the transrational injunctions of the contemplative praxis under the guidance of a qualified Master.

The Quantum Revolution has ended the Modernist, rationalist Enlightenment Project and begun the Postmodern age that is now yielding to a post-metaphysical integral holism, ontological relativity, and methodological pluralism, transcending yet embracing the foundationalist Scientific Materialism (Scientism) of the Western tradition. Thus emerges the 21st century new reformation in religion, science and culture — the brave new world of our emerging integral noetic revolution. Let us then briefly explore the logic of this new ontology of interdependence.

Post-Quantum Logic: West Meets East

Open mouth, already a mistake.

—Zen Pith

Neils Bohr's Fundamental Principle of Complementarity that yields the wave-particle duality of the Copenhagen Interpretation of the Quantum Theory appears to violate two of Aristotle's three "Laws of Thought," the foundational laws of Western logic and mathematics, namely, the Law of Contradiction and the Law of the Excluded Middle. (Aristotle's first law is the "Law of Identity, "A is A," and not something other.) The Law of Contradiction—"Not both A and Not-A (A cannot be not-A) or contradictories cannot both be true—is violated because light cannot be both a point-like particle, and a wave spread out in space. Waves and particles are distinct objective entities. If an object is A, it cannot also be B. The Law of Excluded Middle—"either A or not-A" (contradictories cannot both be false)—is also violated because light must be either a particle or a wave, but not both. Moreover, in quantum mechanics, a particle—an electron—may exist in an ineffable "super position," that is, prior to a measurement that "collapses the wave function" the electron is in two places at once! In other words the electron is both A and not-A. This proposition represents an essential ambiguity of quantum mechanical logic and ostensibly violates the law of Excluded Middle.

Whether it is the Law of Excluded Middle or the Distributive Law that is violated, and whether or not Bohr's Principle of Complementarity saves the Excluded Middle, this untidy "quantum measurement problem" is only a problem if one insists on the primacy of the Western Logical Canon. *The problem is this: determinate quantities of mass, charge and spin are imputed to an indeterminate particle with no definite location or momentum. Classical descriptions are used to describe objectively real postclassical subjectively varied quantum phenomena. Quantum mechanics is girded by and logically linked to the classical mechanics it disproves. Can we have it both ways?*

Is Aristotle's bivalent logic the only logic? In this purely deductive logic, the Law of Contradiction and the Law of Excluded Middle are not *a priori* true assumptions, but are logically deduced from the definition of contradictories as stated in the Law of Contradiction itself. But in the Eastern logical canon the truth of a statement is not logically equivalent to the falsity of its contradictory, as we shall see.

Is the human mind then, entirely bound by the logical syntax of this binary, merely two valued truth-functional logic? Must we be yoked to a bipolar view of reality that logically excludes the holism of "both A and not A"? This dichotomous, separative mode of thinking has become the pernicious, unconscious intersubjective *mythos* of dualism that has infected the history of ideas in the West—religion, science and culture—and we're not even aware of it! Let us then monitor—moment to moment in our mindstream— this logical pretense to knowledge. Let us relax this habitual dualistic cast of mind and open to the nondual whole that constantly pervades the mind.

How do we move then, from this fearful, habitual Cartesian quest for the logocentric grail of absolute objective certainty, to an atavistic, perspicuous, semiotic semantics where the "modal mismatch" of mathematical logical *necessity* and the radical *contingency* of the Quantum

Theory and Buddhist *Dzogchen* are unified in a prior ontic unity? We need a many-valued logic with truth functions beyond just true and false, and a many-sorted logic in which the variables range across different modal domains.

Both Hindu and Buddhist logicians in the East, and the European Intuitionists (Brouwer, von Pauler) in the West deny Aristotle's Law of Excluded Middle. This law is replaced with the unifying Law of Connection, "Both A and not-A," ("Everything is connected with all other things"), and its complementary, "Neither A nor not-A." These two together permit the ontological interdependence, the non-separateness of all arising phenomena—the "Interbeing" of Buddhist "dependent arising" (*pratitya samutpada*) of forms arising in spacetime—and do not assume or presuppose the existence of A, that is, the existence of anything at all. This then, permits a unified, East/West logic that allows, without contradiction, our fundamental Principle of Ontological Interdependence—that all arising phenomena are interconnected by prior causes and conditions and nothing exists independently—upon which turns the new post-materialist, post-metaphysical theories of ontological and universal relativity explored below. Gödel, Hilbert, Russell, Whitehead, Quine and Duhem have shown that even the hitherto *a priori* axioms of mathematics and deductive logic are merely conventional and cannot be a path to objective certainty. So, this logical Law of Connection defies the Western logical orthodoxy—the great legacy of Aristotle, Frege, Russell and his prodigy the young Wittgenstein—thereby revealing the ontologically prior, always present unity of the perennial Two Truths that is the all-embracing transconceptual one truth that must be included in any theory of ontological or universal relativity, and in any "theory of everything."

The wave-particle duality and the quantum measurement problem of the Quantum Theory then, are in principle compatible with the Law of Connection—both A and not-A. Thus, with this urgent logical enrichment, primordial light-energy-mass may be, without contradiction, both a point-like particle and a wave spread out in space. Aristotle's Law of Excluded Middle assumes the metaphysics of Realism, that abstract terms entail real existents. Nominalism (Bohr, Quine) denies this.

Wu-wei. Neils Bohr's coat of arms was the *tai chi*—the *yin-yang* symbol that outpictures the primordial emptiness ground (*Wu/Mu*) of Ultimate Reality Itself (Tao) in whom or in which arises these two primordial energies, *yin* and *yang* (plus and minus charges) that is the very light that creates the five elements (*wu-hsing*) from which evolve the ten thousand things (*wan-wu*) that is all of material relative spacetime reality. This dialectic of the Tao of emptiness includes both "is and is not," "both/and," "both A and not A," both being and non-being. Tao/emptiness is the interdependent arising (*pratitya samutpada*) of all physical and mental spacetime phenomena, all things spontaneously and effortlessly (*te*) which then generates the conduct that is liberation, *wu-wei*, wayless non-seeking conceptual surrender from whence flows the spontaneous, effortless action that is our salvation from "karmageddon" through selfless compassionate activity. "The *wu-wei* that does not aim at *wu-wei* is truly *wu-wei*." Such effortless effort realizes the Tao that is both relative and ultimate happiness for human beings. From this surrender follows flowing return (*fu*) of all things again to the light of Tao, supreme source that is "the stillness in motion that pervades heaven and earth." Such is the post-quantum logic of our emerging integral noetic science of matter, mind and spirit.

The Standard Model: Physics in Trouble

It is difficult to locate a black cat in a dark room, especially if there is no cat.

—Confucius

Metaphysical prelude. There have been two great revolutions in Science, the Copernican Revolution of the 17th century, and the 20th century Quantum Revolution. Now, on the cusp of the 21st century we enter a new scientific and cultural revolution, the Noetic Revolution in science, religion and culture. Here we establish an integral, noetic science of consciousness—the long neglected study of the mind beyond or prior to mere electrophysical brain—that will further the project of unifying the hitherto incommensurable paradigms of Science and Spirit/spirituality.

Perhaps the greatest challenge facing theoretical physics today is the incompleteness and theoretical inelegance of the “Standard Model” with its Quantum Field Theory (quantum electrodynamics or QED). This challenge is intimately linked to the lack of a unifying Quantum Gravity that quantizes General Relativity unifying it with the Quantum Theory. Such a synthesis will relativize the logocentric idols of General Relativity, namely absolute spacetime, and absolute locality. Unfortunately, the Standard Model and its theoretical quantum gravity candidates, Superstring Theory, M-Theory and the rest (and indeed all of the GUT candidates) cling to the metaphysics of epistemological Realism (Hawking might argue this point in defense of M-Theory) (Appendix B). Physicists are of course aware that experimental/observational evidence mitigates against any GUT and so default to the Standard Model on an *ad hoc* basis. *What is needed is a cognitively courageous theoretical leap from the metaphysical fundamentalism of foundationalist Scientific Realism—the belief in an independently existing objectively real world—toward a non-realist, non-materialist, nonlocal, top-down, observer or model or theory dependent centrist middle way physics paradigm.* Reality is “theory-laden” and dependent on our cultural intersubjective “web of belief” (Quine). The emerging integral noetic science of matter, mind, and spirit is an auspicious beginning of this urgent inter-dimensional, inter-paradigm project. Here, the absolute dynamics of classical pre-quantum physics yields to the interactive dynamics of the interdependent epistemology and ontological relativity (Bohr, Quine, *Madhyamaka*) of the emerging Noetic Revolution.

The heart of the matter: renormalization in Quantum Electrodynamics. The Dirac Equation (1927), a single-particle equation, unlike the Schrödinger wave equation, satisfies both the requirements of Special Relativity (the Lorentz invariance), and the rules of quantum mechanics. Dirac later refined his equation (hole theory) by reformulating it as a relativistic field equation (the Dirac field/electron field) which predicted the existence of “real” (physical) antimatter. But this quantum field theory still retained the specter of the “divergence problem,” the unhappy mathematical fact that calculations of the basic physical quantities of the finite sized electron yielded infinite results, an absurd result because the mass and charge of the electron are measurable and were known to be finite. In the late 1940s Julian Schwinger, Richard Feynman, and Freeman Dyson, the creators of QED, came to the rescue with a revolutionary and admittedly *ad hoc*, non-self consistent “renormalization” theorem that ostensibly evades this vexing problem of infinities (the “hierarchy problem”) by audaciously

redefining the very meaning of mass and charge in the quantum field equations.

The problem is that mass and charge do not correspond to the physical constants measured in the laboratory. The quantum theory's mass and charge are mathematical "bare quantities" that do not take into account the effects of the physical constants themselves in actual interactions. The Feynman (diagrams) "sum over histories" add up to infinity, that is, the total of a particle's histories yield an infinite, thus absurd, result. Therefore, in order that the pure mathematical formalism of the QED theory meet with an independent physical "real world out there" (RWOT), the QED nomic formulae must be reinterpreted (defined) as measurable "renormalized" quantities of mass and charge, that is to say, as counterterms canceling out the pesky infinities of the calculations of the bare theory particle quantities. ("Bare mass" and "bare charge" are arbitrarily redefined such that the Lagrangian quantities are functions of the corresponding renormalized mass and charge quantities.) Thus the nominal quantities are bestowed reality beyond their mathematical formalism. They are now officially "real," which means physical—physically existing entities extended in spacetime. But why must arising reality be merely physical, spacially extended quantities? This lettered but illicit strategy of "subtracting infinities from infinities" to conjure finite physical entities when the QED equations contain undesired infinities amounts to an arbitrary attempt to deny an agreed internal mathematical inconsistency lurking at the very core of QED.

Both Dirac and Feynman were critical of this *ad hoc*, mathematically dubious renormalization strategy. "Having to resort to such hocus pocus has prevented us from proving that the theory of QED is self-consistent... Renormalization is not mathematically legitimate" (Feynman, 1990, p. 128). For Dirac, "QED... is just not sensible mathematics" (Kragh, 1990, p. 184).

Self-consistent or not, clunky QED renormalization has proved profoundly useful to condensed matter physics and other applications (the Lamb Shift) where particle behavior is finite. Thus do we defend it.

Both QED and QCD of the Standard Model of physics utilizes illicit, quite inelegant renormalizable operators, but the operators of General Relativity are non-renormalizable, making QED useless in developing a much needed theory of quantum gravity. So, in QED/Relativistic Quantum Field Theory (QFT) (the backbone of the Electroweak unification), and the gravity of General Relativity the consummation to be wished is a self-consistent mathematical theory that quantizes gravity, providing the holy grail of a "Grand Unified Theory" (GUT) that at last unifies the three forces of nature, namely the Electroweak Force, the Strong Nuclear Force, and Gravity. However, a mathematically rigorous, axiomatic Standard Model QED compatible with Einstein's theory of gravity—a quantum gravity theory—still eludes us. The Standard Model's insistence upon a realist, physicalist metaphysics has hindered, if not precluded, any such transphysically nontrivial axiomatic, self-consistent theory. At present then, Relativistic Quantum Field Theory has not been shown to be mathematically compatible with Special Relativity, notwithstanding the "dippy hocus pocus" (Feynman) renormalization theorem. Thus the Electroweak Force that is the unification of the electromagnetic force with the weak force is unstable.

"Constructive Quantum Field Theory" is now working on the requisite new mathematics that may finally quantize gravity, that is, facilitate a self-consistent QFT that is compatible with

gravity—just as Newton and Leibnitz separately invented the infinitesimal calculus to explain classical gravity. The Gauge Theory of Yang and Mills is a new hope for such a realist theory. Could surrendering the metaphysics of Scientific Realism/Physicalism—our preconscious intersubjective “web of belief” (Quine)—help? Some particle physicists assume (or hope) that when a consistent, non-renormalizable Relativistic Quantum Field Theory is applied to Einstein’s General Relativity conception of the gravitational field, a low energy field theory will emerge that is foundational to a more unifying high energy Superstring Theory that finally quantizes gravity and produces the grail of the “final theory,” a TOE that explains not the all-embracing *Kosmos*, but “every particle and force in the physical cosmos.” Thus a TOE is not really a TOE, but if it is possible at all, is a TOE of the mere physical cosmos. Stephen Hawking believes that M-Theory is the only TOE candidate that has a chance.

A Kuhnian “scientific crisis” that portends a “scientific revolution.” The Standard Model is the currently accepted theory of particle physics that attempts to explain the dynamics of subatomic particles (excitations of quantum fields) and the forces—the Electromagnetic, the Weak, (now unified as the Electroweak interaction), and the Strong Nuclear interactions—that mediate among particles. It is often referred to as the Quark Model since the discovery and experimental confirmation of quarks (inside protons) and leptons (electrons and neutrinos) in the 1960s, and the subsequent discovery of the “top quark” toward the end of the 20th century. But the Standard Model is glaringly inelegant in that it utilizes scores of parameters that must be tweaked in order to explain actual observations.

And the Standard Model is incomplete. It fails to explain a number of anomalies: 1) *CP symmetry violation*—why is there so much more matter than antimatter in the universe?; 2) *strong CP symmetry violation*—why does the strong nuclear force of Quantum Chromodynamics (QCD) not break CP symmetry (why is it CP invariant)?; 3) it cannot explain or explain away the dark matter and dark energy that comprises 96 percent of the physical universe; 4) it is unable to quantize the gravitational field, that is, it is unable to develop a Quantum Theory of Gravity that is mathematically consistent with the gravitational field of Einstein’s General Relativity; 5) it is unable to explain neutrino oscillations that yield a non-zero mass for neutrinos (the mass a symmetry between neutrinos and antineutrinos), and now the paradigm busting news of the supraluminal velocity of neutrinos, which breaks Einstein’s Special Relativity light speed limit; 6) it is unable to account for the problem of infinities (the diversity problem and the hierarchy problem) in its foundational Relativistic Quantum Field Theory (QED); 7) the unfindability of the Higgs boson, essential to the generation of mass (thus the “God Particle” epithet) in quarks and leptons that constitute the physical cosmos (but not the *Kosmos* in which it arises).

Gravitational quantization: mass behaving badly. Physicists and philosophers of science generally agree that to answer these challenges the Standard Model must embrace a physics “Beyond the Standard Model,” that offers a mathematics capable of resolving these conundrums. Candidates are Superstring Theory, M-Theory and a Supersymmetry/Supergravity (MSSM and NMSSM) that result in unification of the three fundamental forces—the Electromagnetic, the Weak and the Strong forces—into the “Electronuclear Force” that is a Grand Unified Theory (GUT). This GUT will then somehow unify with the Gravity force for a hubristic final Theory of Everything (TOE) that unifies in one self-consistent mathematical

model all microcosmic and macrocosmic (but not *Kosmic*) particle interactions. The likely candidates for such a TOE are theories of Quantum Gravity, such as the minimalist Loop Quantum Gravity, M-Theory, etc. All of the above “Beyond the Standard Model” theories are non-renormalizable and await the discovery of the gravity force carrier, the mysterious massless graviton required by any quantization of gravity. The final unification of the GUT Force with the Gravitational Force would occur at the Planck energy (10^{19} GeV), a finite mathematical stretch, to be sure. Remember here that the Standard Model and the hypothesized GUTs are all relativistic Quantum Field Theories (QED/QCI) which require the “hocus pocus” quasi-mathematics of renormalization to dodge the “hierarchy problem” of infinities. And the several TOE offerings of the string theory mindscape are often criticized as circular, and unfalsifiable theories diaphanously adaptable to include *any* observation. Moreover, all of the GUT candidates on offer require proton decay. Experiments thus far have failed to show that protons decay. Yet such an ontologically relative theory may avoid the compulsive metaphysical realism and Physicalism/Materialism of the hitherto classical and quantum approaches, so we must be open to this strategy. Again, why must arising appearing reality be merely and purely physical? Is there a middle way (p. 35)?

Is a theory of everything logically possible? The basic mathematical principle of incompleteness as expressed in Platonist Kurt Gödel’s 1931 Incompleteness Theorems points to an essential untenability of any pretense to a Theory of Everything. Gödel’s proofs demonstrate that in any logical mathematical system there are propositions that cannot be proved or disproved utilizing only the axioms of that system. There will always be mathematical truths that are not logically derivable from the axioms of any logical system. All consistent axiomatic systems contain undecidable propositions. All logical systems must necessarily refer outside the system for new axioms and rules to determine the truth value of these undecidable propositions, *ad infinitum*. Thus all logical systems, including the logical formalism of Hilbert’s program, and of Russell’s and Whitehead’s *Principia Mathematica* are inherently incomplete (so much for the great *Principia*).

The liberating result of incompleteness is that relative-conventional conceptual constructs—our logical conceptual understanding—cannot penetrate the higher dimensional order that is the transrational Ultimate Truth of nondual reality itself. To accomplish this the human mind must approach and practice transrational contemplative technologies. The beautiful, paradoxical (to concept-mind) truth is that, because even internally consistent logical systems cannot prove their own consistency (Gödel’s Second Theorem) we are free to augment our mental life with the contemplative wisdom of our nondual perennial wisdom traditions (which, alas, opens a Pandora’s Box of narcissistic pseudo-scientific new age, more-holistic-than-thou tripe).

Gödel’s theorems apply rigorously only to mathematical systems that are arithmetically expressive enough to include properties of natural numbers. Thus to the complex mathematics of Relativistic Quantum Field Theory and the hope of a consistent TOE, Gödel’s proofs are devastating. Remember that Gödel’s proofs are understood by mathematicians to prove that no complete axiomatic system can exist that can prove all logical/mathematical truths. Or worse (for logical formalism): all axiomatic systems that are internally self-consistent, are inconsistent! *Any such system is, therefore, either inconsistent (a proposition and its denial can both be*

*deduced from the axioms), or it is incomplete (there is a true proposition that cannot be deduced from the axioms). These are Gödel's two theorems. Now, any Theory of Everything must be an internally consistent, non-trivial mathematical theory. Therefore it must be incomplete. Both Stephen Hawking (2010) and Freeman Dyson (and many others) have been disabused of the TOE urge for these reasons. "Because of Gödel's theorem, physics is inexhaustible. The laws of physics are a finite set of rules, and include the rules for doing mathematics, so that Gödel's theorem applies to them" (Dyson, NYRB, May 13, 2004). In other words, Gödel's incompleteness applies to relativistic Quantum Field Theory (QFT) and its QED. Most theoretical physicists, however, do not share this view, and embrace the "hope for a miracle" wish that a realist/physicalist TOE is still somehow possible. But an increasing number of physicists, including Einstein and Hawking believe, even while holding to a realist or to a nominalist ontology, that the ultimate nature of reality can never be grasped by mere mathematical theory, concept and belief. This seems to be a sensible approach to our uncertain and incomplete relative-conventional knowledge of the future. It encourages an openness to an ascertainable nondual certainty of ultimate knowledge—the Ultimate Truth (*paramartha satya*) of the nondual wisdom traditions of our species (Chapter II, p. 45).*

Orthodoxy. By 1980 theoretical physics had established the quantitatively robust Standard Model, a supreme collective intellectual achievement. It has now become the "old paradigm" scientific orthodoxy. Many particle physicists and philosophers of physics (Hawking, Penrose, Smolin, Goswami, Stapp) agree that there have been no real breakthroughs since. Yes, the incomplete Standard Model is now in the Kuhnian "scientific crisis" that precedes a "scientific revolution" and a "paradigm shift." It is unable to explain the Quantum Uncertainty Principle and quantum nonlocality (entanglement), CP symmetry violations, and the supraluminal velocity and the nonzero mass of the neutrino.⁸ All this, along with Dark Matter and Dark Energy, and the "Problem of Consciousness" (the problem of subjectivity) represent new clouds on the horizon that portend at least a radical revision of the Standard Model, the model that explains nearly nothing about 96 percent of the physical cosmos, and absolutely nothing about consciousness, the non-physical or metaphysical subjectivity that is *Kosmos* Itself! Hawking has argued (2010) that no TOE can explain the cosmic fine tuning of physical laws that permit our existence (the Strong Anthropic Principle). That "next more inclusive theory" will transcend yet include the many truths of the Standard Model (Hawking lies M-Theory) with its Quantum Field Theory (QED/QCD), just as Relativity Theory included Newtonian Mechanics, which included Galilean Mechanics, which corrected yet included the celestial mechanics of Kepler, Copernicus and Aristotle.

"Why," asks physicist Lee Smolin, "is physics in trouble?" *I will here, again argue that theoretical physics has at last "hit the wall" fabricated by its petrified, ideological clinging to a foundationalist realist materialist orthodoxy, grounded in the metaphysical assumption that the whole of*

⁸ Experimental results from Fermilab's MINOS experiment, and others, indicate an asymmetry between neutrinos and antineutrinos. They appear to have different masses, which violates the Standard Model's CPT symmetry of Relativistic Quantum Field Theory, which violates Einstein's Special Relativity. This Neutrino Sector revelation, if true, demonstrates another limit of the Standard Model and the need of a fundamentally new paradigm in physics. If recent (2011) neutrino discoveries at CERN, that the faster than light speed of the neutrino is true, then we are faced with a bigger problem. Relativity is refuted and the Standard Model folds like a house of cards.

appearing reality is an objective, observer independent (Realism), purely physical reality (Physicalism/Materialism). This logocentric metaphysical false idol augurs the sinister “myth of the given” (Naïve and Scientific Realism) with its denial of consciousness, intersubjectively fixed for the Western mind by Apollonian measure, the logic of Aristotle, and Galilean radical objectivity. In other words, the dogmatic presumption of Western foundational Realism (reality exists independently of any observer) and of monistic Physicalism (Materialism) with its effective denial of subjective, even “vertical spiritually empirical” contemplative phenomena, must yield to an observer dependent, ontologically relative post-Realism view of the ultimate nature of reality. Hawking’s “model-dependent realism” (2010) is a beginning.

Again, why must reality be only and ultimately physical? Modern and contemporary physics has begged the question of Physicalism for 400 years and now resolutely ignores the clues given by the profound stochastic subjectivity of the Quantum Field Theory and Quantum Cosmology, the “Problem of Consciousness,” and Buddhist *advaitic* (nondual) epistemology.

The metaphysical presumptions of Scientific Realism. Alan Wallace has pointed out that in order to adopt Scientific Realism as a metaphysical ontology one must make conscious a number of unconscious assumptions: 1) Reality is only physical, and exists independently of an observer; 2) this reality can be known conceptually; 3) of all the theories of reality, only one can be true; 4) the view of Scientific Realism is that one true theory. Thus is the presumptive metaphysical view of Scientific Realism problematic, to say the least.

The great quantum debate: EPR and Bell’s Theorem. The epistemological Scientific Realism of the Hidden Variables interpretation of the Quantum Theory — Einstein, de Broglie, Schrödinger, Bohm — in perennial debate with the nominalist, instrumentalist, anti-realist Copenhagen Interpretation of the Quantum Theory — Bohr, Heisenberg, Born — deny that the Quantum Theory is complete, that is, the Standard Model of physics is incomplete. Einstein and the realists claim that it fails to offer a non-statistical, non-instrumental, realist description of the *real* objective independent existence of the furniture of relative spacetime physical reality. The Quantum Theory must therefore, be understood as an incomplete description of physical reality. Einstein insisted on an epistemologically realist interpretation; there’s an objective observer-independent “real world out there” (RWOT) existing independently from we separate observing subjects with our instruments. On this essentialist, realist account, the objects appearing to the senses exist as objective, independently existent, essentially real entities just as they appear and are given to us by the medium of our sense perception (the “myth of the given”). *The “completeness of physics” here assumes without proof the metaphysics of monistic Materialism/Physicalism. That is to say, this completeness assumption begs the question of Physicalism. If the physicalist explanation of physics is a complete explanation of reality, then of course, reality must necessarily be only physical.* On the other hand, both Heisenberg and Bohr rejected the foundationalist defenses of the realist, mechanistic determinism of both Einstein’s and Newton’s classical physicalist worldview.

Complicating the issue, Nick Herbert (1985) identifies eight incompatible versions of the Quantum Theory, all of them internally consistent. Alan Wallace (1996) points out that if quantum mechanics is pragmatically true — true because it works (and it most certainly does work, every time) — then we must ask which of these several versions is the correct one? Must

there be any one correct version? Moreover, if the Quantum Field Theory proves certain truths of popular mysticism, then we must ask which of these confirms mysticism, and which mystical experiences are confirmed by it? There is a plurality of explanatory theories that contain pragmatic truth. Perhaps we need not cling to a theory of Realism (Absolutism) or of Antirealism (nihilism) after all (p. 21). This is certainly the view of the Neopragmatists (p. 10). (In Chapter V we will explore a centrist, middle way view to this perennial dichotomy.

Einstein's "inner realist" required that properties of material objects (1) have an independently "real existence" and (2) all physical effects are local (electromagnetic signals cannot exceed the speed of light). The Copenhagen Interpretation allegedly violates this common sense Scientific Realism of locality in that an individual quantum system—say, a pair of particles—can separate into two apparently "spacelike" (separated by a light signal) entities moving apart from each other while their quantities (position and momentum) remain a single "entangled" entity. When a measurement is made of one particle of the two particle system, the value of the other may be known instantaneously because it will always be of the opposite charge. In other words, the particle pair seem to interact non-locally, supraluminally, via a signal that travels at faster than the speed of light. The two particles seem to be somehow communicating. Now that's spooky! Such "quantum entanglement" is a violation of the "locality" required by Einstein's neorealist Special Theory of Relativity. Indeed, without an experiment to determine a measurement of the particle quantities—position and momentum—the stochastic, non-determinist, non-objectivist Copenhagen Interpretation holds that the particles are not merely indeterminate but are non-existent—not real—a result that the Einstein vigorously resisted. Thus, it would seem that Scientific Realism and the antirealist Quantum Theory are utterly incommensurable paradigms. Let us not yet foreclose debate.

In the infamous EPR thought experiment (Einstein, Podolsky, Rosen), published in 1935 (*Physical Review* Vol. 4), Einstein's realist attempt to "save the appearances"—to salvage the realist "myth of the given"—takes the form of a thought experiment challenge to the Antirealism of the Copenhagen Interpretation of Bohr and Heisenberg. If a particle measurement can be made in an experiment that the quantum theory cannot predict, then the theory is, *ipso facto*, incomplete, and the "attempt to save the appearances" is furthered.

The EPR argument assumes the "locality assumption"—no particle interaction can be nonlocal (travel at supraluminal speed)—and argues that a measurement can be made that proves that a particle in a correlated two-particle quantum system at one location in space cannot be influenced by a measurement of a particle at the other side of the galaxy, thus saving the locality assumption. Rather, the first particle alone will have precise simultaneous values as to both the particle's quantities—both position and momentum—a violation of the Heisenberg uncertainty relations. This conclusion, according to EPR, proves, not that antirealist quantum mechanics is false, but that it is incomplete, that is to say, its description of the particle behavior in the correlated quantum system is not a complete description of the behavior of the system. Thus the cause of determinist Scientific Realism is furthered. Note that EPR assumes, *a priori*, that objectivity and causality obtain in an objective physical real world out there (RWOT), as well as in the subjectivity of the quantum world. Reality and observer are always separate. But for Bohr and Heisenberg there is here no violation of the causal principle, for causality does not obtain in the indeterminist subjectivity of the quantum realm. For them quantum particle

coherence is nonlocal and acausal. In the holism of the quantum theory, subjective observer and objective reality are an ontologically prior interdependent whole. The parts and particles are not separate at all. They are complementary. Sounds like Buddhist *Madhyamaka Prasangika* (p. 34 ff).

Further proof argued by Einstein: "God does not play dice with the universe." Bohr responded to this determinist-realist speculation of Einstein thusly: "Oh Einstein, stop telling God what to do."

Einstein further argued that if the Quantum Theory is complete it must apply not only to micro-particles, but as well to macroscopic phenomena, namely, cats, trees and stars. Is it not after all, absurd to conclude that the location of a cat—Schrödinger's cat, any cat—cannot be precisely determined, just because its electrons have no precise location?

Bohr's nominalist, instrumentalist antirealist reply to EPR—that this two-particle quantum system does not exist in reality, but only in an ideal instrumentalist, experimental context—was not at all satisfying to Einstein and the naïve atomistic Realism of the hidden variables neorealists. And rightfully so. If the postmodernists Kuhn, Quine, the Introspectionists and the neuroscientists are correct—that all of our perceptions and conceptions are, at least in part, intersubjectively "theory laden," that is, they do not correspond to an objective, independently existent reality—then the Instrumentalism of the Copenhagen School of Quantum Physics offers only solipsism, we can know nothing of reality beyond our own sensory experience, and this is nothing more than Nihilism. So our ontic options seem to be either a naïve presumptuous dogmatic and absolutist Scientific Realism, or a bleak, useless, equally naïve Nihilism. Is there a middle way (p. 85 ff) between Absolutism and Nihilism? Do we have a choice? *What is needed is a conceptually courageous, relative "centrist view" that declines to reify our percepts and concepts into an absolute independent physical existence, yet that offers a non-idealist, non-nihilist explanation of appearing spacetime reality. We need to either relativize or dump Realism as an ontic explanation of what there is (p. 21).* Let Realism be relegated to the epistemology of spacetime Relative-Conventional Truth, and not a pretense to an ultimate ontology of the nature of the very ground of Being-Reality itself.

For the next thirty years the EPR debate chilled. Then, in 1964 John Bell published a seminal, paradigm shattering paper introducing "Bell's Theorem," a mathematical proof that refutes *any* model of reality that requires the locality assumption; that is, reality must necessarily be nonlocal. Bell is questioning the EPR assumption of local causality. Bell's Theorem would demonstrate experimentally the logical inconsistency between Realism's spacetime causal local interactions among subatomic particles and the nominalist antirealist predictions of the quantum theory. Bell's Theorem established laboratory experiments—based on the mathematical formalism of "Bell's inequalities"—wherein the nonlocality of Bohr's quantum mechanics could be tested and Einstein's realist interpretation with its locality assumption could be decisively proved or disproved. Upon Bell's untimely death, these experiments were conducted in 1982 at the University of Paris by Alain Aspect, and later by several others, that *proved that Einstein's hidden variables are indeed necessarily nonlocal, and therefore 2,500 years of Premodern and Modern epistemological Realism—the Realism of classical and both Newtonian and Einsteinian relativistic physics—is refuted. "Non-local connections are ubiquitous because reality itself is non-local"* (Nick Herbert). The nature of reality and the mind that

perceives it are then, an undivided, unbroken whole. And if this is so, the transfer of information need not involve the propagation of light energy signals. Quantum information bits (qubits/*vasana*) are always already inherently present in everything. The supraluminal transfer of signals of Einstein's Special Relativity is not violated after all in such a holistic, ontologically relative view. Yet, the primordial, ultimate nature of mind transcends and includes the merely spacetime coordinates of Special Relativity. Thus Einstein's nonlocal "spooky action at a distance" is an intrinsic feature of ontology, of what there is. And what is, isn't ultimately really real. (The centrist view of the *Madhyamaka* would agree, but add that what appears does have a relative-conventional reality, but no intrinsic, independent reality.) Objectivity and causality are kaput! What hath God wrought?

So, Einstein and the neorealist atomists are wrong and the holistic antirealist, nominalist Copenhagen School with its spooky quantum weirdness is vindicated. That is the current academic and popular "high culture" view.

Thickening the plot. Well, that's not quite the end of the story. Lee Smolin argues (New York Review of Books, June 14, 2008) that Bell's experimental result—"Bell's inequalities"—requires that only one of Einstein's realist assumptions listed above is incorrect. Remember, these are (1) matter has a "real existence" prior to the "wave collapse" resulting from an observation or measurement, and (2) matter's particle interactions are local, that is, they obey the classical Principle of Special Relativity, that all particle interactions are mediated by light signals, thus no particle can exceed the speed of light, and therefore Einstein's "spooky action at a distance," the bizarre nonlocality of quantum connectedness (entanglement) is false. (All of this a *fait accompli* if neutrinos travel at supraluminal velocities.) Smolin speculates that it is assumption #2, particle interactions are local—the "locality assumption"—that is incorrect, as per Bell's inequalities (The Quine-Duhem Thesis, p. 18). "This assumption can be denied while holding fully to Einstein's notion of realism." Thus Smolin's neorealist "attempt to save the appearances" enlists the special pleading of the intrepid "hidden variables" argument whose *ad hoc* variations we may trace back in epistemic time through positivist, mechanist, empiricist, materialist/physicalist strategies all the way back to Leucippus and Democritus and the Greek pre-Socratic atomists, and the realist Buddhist atomists of the *Abidharma*.

Smolin argues, "There are theories that make the same predictions as quantum mechanics and are fully consistent with Einstein's notion of realism, but give up the assumption of locality." These are of course, the "hidden variables," theories of David Bohm, de Broglie, and recently, the Ghirardi/Rimini/Weber Objective Collapse Theories (1986). These theories give a realist-materialist explanation of quantum events wherein the wave function is "real" and criticize the stochastic, epistemologically antirealist results of the Copenhagen School as incomplete, as we have seen. For Smolin, Alain Aspect's experimental results on Bell's Theorem ruled out only hidden variables theories that are local, but not the nonlocal theories above. Moreover, Smolin reminds us that recent experiments in the on-going effort to quantize General Relativity and unify it with the Quantum Field Theory through a more complete and inclusive theory of Quantum Gravity suggest that locality—physical interactions are local, not supraluminal—is a primitive theory that describes quantum behavior arising from a primordial "fundamental reality prior to the spacetime locality of merely physical phenomena." (Sounds like Buddhist/Vedanta metaphysics.) This incompatibility of General Relativity with

the present state of the Quantum Field Theory (QED) it is assumed, will produce that next more inclusive, unifying realist theory, *i.e.* a Super-Duper String Theory/M-Theory that will correct the “problem of infinities” (the hierarchy problem) inherent in both theories, without appealing to a kinky, *ad hoc* “renormalization” theorem, as we saw above.

Hope for a miracle. Alas, it cannot. Realist/Materialist theories operate in the epistemic, relative conventionally real spacetime world. Our conceptual understanding is necessarily limited by this dimension or modality and cannot penetrate any conceptually ineffable ontic Reality that may lie prior to the Planck limit (Planck time, Planck length) and the quantum uncertainty relations. Thus Scientific Realism (Scientism) necessarily refers us to an ontologically subtler, even ultimate strata of formation—ontologically prior to the merely physical—that which is the ontic source or ground of this merely conceptual understanding. The alternative is a naïve skepticism. The epistemology of objectivist foundational Realism/Materialism—the conceptual realm of Relative Truth—cannot function as an ontological theory of ultimate reality in the subtler nondual subjectivity of the transrational realm of Ultimate Truth pointed to by the nominalist Antirealism of Quantum Field Theory, and more completely described by the Buddhist Idealism of *Yogachara*, and the centrist ontological relativity of *Madhyamaka Prasangika*, and of *Advaita* (nondual) *Vedanta*. *We have waited 2,400 years for a hidden variable to save Physicalist Realism! The entire edifice of the current world view of Scientific Materialism begs this question of Physicalism, the metaphysical assumption that the arising objects of reality are purely material/physical (Appendix B: The Idols of the Tribe: The Metaphysics of Modern Science).* Again, the “completeness of physics” and its Quantum Theory begs this question of Physicalism (Materialism). How much longer must we wait? Would it be unfair to assert that this preconscious intersubjective realist/materialist IOU has sold out the Western Tradition from the very beginning? And we’ve all bought it! In any case, the metaphysical, special pleading of the “hope for a miracle” hidden variable strategy of Reductive Materialism, Eliminative Materialism, Scientific Materialism (Scientism) and Scientific Realism requires a healthy watchful skepticism.

Alas, the appalling academic suppression of new work on hidden variables—and on consciousness and contemplative studies of the Buddhist *Madhyamaka* cognitive, supramundane, “supernormal”—that dissent from the eristic ethos of the Copenhagen “orthodox ontology” has, as Smolin points out in his excellent *The Trouble With Physics* (2006), greatly inhibited further research. Perhaps such lettered hubris may best be understood as a preconscious intersubjective, deep cultural background ontic reticence to rocking the epistemic boat of the status quo, lest we be cast rudely from our *verecundiam* comfort zone of instrumentalist, nihilist quantum orthodoxy into that naked, “spooky” transrational emptiness void of ultimately subjective nondual Reality Itself. And this, while the antirealist, nascent proto-centric ontological relativism of the Copenhagen School points steadily beyond its nominalist, instrumentalist formalism, into this great open expanse of the “metaphysical,” even “mystical” primordial emptiness of the emerging Noetic Revolution. H. H. The Dalai Lama and Alan Wallace would think so.

A New Ontology? In any case, it is clear that with the failure of epistemological Scientific Realism and Physicalism/Materialism to provide ontological solace, these two great physical theories of the 20th century—General Relativity Theory and the Quantum Theory—

require a “final theory,” or at least a more inclusive, post-realist, nonlocal new ontology to explain Smolin’s “unified nature” of arising, spacetime phenomenal reality, and to unify General Relativity and the Quantum Field Theory (QED). Smolin and other neorealists grasp at this next more inclusive theory, apparently unaware that epistemological Materialism/Realism alone is necessarily precluded as an ultimate ontological theory of everything by the conceptual—logical and epistemological—ambiguity barrier of the Planck time (10^{-33}) and the Planck length (10^{-43}). *Our weighty Problem of Knowledge—how we know what there is—requires a new noetic approach that transcends yet includes algorithmic computational (biomorphic or silicon) decidability and conceptual elaboration, and that also includes the non-discursive, transrational consciousness of the contemplatively trained human subject (Chapter VI).* Science and its functionalist material realists must become aware of this growing body of scientific literature (Wallace 2007, Begely 2007). In any case, Roger Penrose and others have shown that human conceptual cognition is not computational, much less noetic contemplative cognition. The human brain does not operate like a computer. (H. H. Dalai Lama 2005; Begley 2007; Wallace 2007, 2008, Penrose 1994.)

Nature is in an obvious sense “united.” The universe we find ourselves in is interconnected, in that everything interacts with everything else. There is no way we can have two theories of nature covering different phenomena, as if one had nothing to do with the other. Any claim for a final theory must be a complete theory of nature. It must encompass all we know.

—Lee Smolin, 2006

Yes indeed. It must encompass not only all we know up to Realism’s Plank ambiguity limit of conceptual understanding, but beyond. To penetrate that Upanishadic “Forest of Wisdom” we must find “the light within.” Here again, we must transcend (but include) representational Scientific Realism and Physicalism/Materialism—pragmatically useful strategies in the nominal realm of relative spacetime conventional reality—but untenable and obstructive of a Grand Unified Theory, let alone a TOE.

Human beings seem to possess an unmistakable innate imprint, a primordial urge toward transpersonal transphysical (metaphysical) knowledge, spiritual knowledge, knowledge of unobservable subjective phenomena and experience. And this includes physicists, in their reflective moments. We’ve seen that a purely objectivist, realist/physicalist epistemology is necessarily precluded as a method of reaching and explaining such subtle, non-objective phenomena. For this deeper, subtler wisdom we must—via contemplative “vertical spiritually empirical” study and practice—leap into the fearful *arcanum* of the perfectly subjective, metaphysical, contemplative unknown. Hopefully with an expanded view, and the guidance of a qualified master.

Let us be clear about this. The mind cannot think itself beyond itself any more than the eye can see itself. “The eye of mind sees everything, but cannot see itself” (H. H. The 16th Karmapa). A knife cannot cut itself. While it is true that we utilize the conventional knowledge of the realm of spacetime Relative Truth (*samvriti*, objective and subjective reality), in order to gradually accomplish Ultimate Truth (*paramartha*), enlightenment, *moksha*, Buddhahood—just

as Nagarjuna and Plotinus told—still, there must be as it were, sudden, non-conceptual, non-discursive meditative contemplative leaps, in fear and trembling, into the vast expanse of naked, nondual Reality Itself. Our fearful skepticism that there is anything here, beyond or prior to physical reality instantiates the psychological truth that we limit our psycho-emotional-spiritual growth and happiness by our intersubjective “web of belief” (Quine), that is, our preconscious, conscious and even superconscious attachment to the uncomfortable comfort zones of our current atavistic, intersubjectively begotten conceptual and belief systems.

Such an injunction to venture inside is truly a radical empiricism in the mode of William James. More epistemological and methodological logocentric “idols of the tribe” are sure to fall as we enter our new Noetic Revolution. Western foundational Realism, Scientific Realism—the Realism that insists on an observer *independent* reality (RWOT) and denies the *interdependent* nonlocal and ontologically relative nature of quantum reality while clinging to the logocentric absolutes of locality and objective spacetime—may be the first to go.

Let us then once again, at great risk of being cast, without tenure, into the metaphysical outer darkness, consult the “intellectually lightweight,” “mysterion” Premodern primordial wisdom of the ages, the great nondual wisdom tradition of the Vedic/Buddhist/Taoist tradition that culminates in relative-conventional spacetime transcendent, utterly nondual *Advaita Vedanta*, and *Ati Dzogchen*, the Great Perfection.⁹ Here, once again, we enter in the perennial Two Truths, the ontological interdependence of the truth of the epistemological Realism of Science (Relative Truth), with Ultimate Truth, nondual Spirit in which or in whom everything arises. Once again, we remember the seeming paradigmatic incommensurability—the duality—of these two conceptual modalities is a prior unity in the utterly transconceptual, unfabricated one truth that is the unbroken whole of luminous nondual Reality Itself. Mind and body, spirit and matter are a transrational, noetic prior unity. So it is told by the masters of our Great Wisdom Tradition. Thus ends the Quantum Revolution, and the beginning of an inchoate noetic ontology, the new Noetic Revolution.

⁹ The nondual teaching of the great philosophical and religious traditions is no more “mysterion” or mystical or metaphysical than are the quantum uncertainty relations, or the Quantum Vacuum, or Dark Energy, or String Theory. The ultimate nature of reality is an utter mystery to the limited, even brilliant conceptual mind, but not necessarily to the highly contemplatively trained compassionate mind of the meditation master (Begley, 2007, Wallace 2007). Let us remember that the exoteric meaning of philosophy (*philo*/love and *sophia*/wisdom) is “love of wisdom.” The esoteric meaning of philosophy is the recognition, then realization of the prior unity of love and wisdom. Realization and actualization of this unity of love and wisdom that is philosophy, is the full *bodhi* of the buddhas and *mahasiddhas* compassionately expressed toward living beings in the world.

Conclusion: Intimations of Immortality

There are many many ways for the teaching to arise.

—Chögal Namkhai Norbu

Thus it is, the ostensibly incommensurable paradigms of Science (form) and Spirit/pirituality (emptiness) are, in a non-relative ultimate view, enfolded in an intertextual ontological and epistemological prior unity, two truths, two views, two voices of a trans-rational vast, open, basal nondual *kosmic* ground of reality that may be auspiciously approached conceptually, and known and realized contemplatively. Accomplishing the levels or dimensions of objective and subjective understanding of this nondual ground of all experience—objective/exoteric/outer, subjective//, and nondual innermost esoteric (the final psycho-spiritual realization of the unity of objective and subjective being)—is the practice that results in awakening/liberation from the ignorance (*avidya*) that is the cause of human suffering.

We have seen that the “wild horse of the mind” must be pragmatically tamed and integrated through the anti-essentialist ontological relativity of Bohr, Heisenberg, Quine, the Neopragmatists, and Buddhist *Prasangika Madhyamaka* epistemology. This middle way is considered by the *Vajrayana* to be the foundation for the ontology of *Ati Dzogchen*, the Great Perfection (the unity of *dharmadhatu* and buddha nature). Such a middle way avoids the philosophical extremes of Western existential absolute Realism and Eastern nihilistic Idealism. From the epistemology one chooses, arises the metaphysics one deserves.

For middle way *Madhyamaka* the particulars of dualistic, relatively arising and appearing spacetime reality are not independently real, but interdependently, intersubjectively real (*pratitya samutpada*). This middle way integrates our perennial “Two Truths”—relative phenomena and their ultimate aboriginal primordial awareness ground. These two are relatively and conventionally, but not *ultimately* separate. The relative particulars arise in and participate as spacetime objective physical/instantiations of the perfect subjectivity that is this vast, unbounded whole. The human condition is that we live in these two worlds—matter and spirit—at once. Objective Science and subjective Spirit are two faces, two voices of this same unbroken nondual whole that is ultimate Reality-Being Itself. And, on the accord of our wisdom traditions, we actually *are* that reality—the very nature of mind—by whatever name. As the whole subsumes its parts, these two—form and emptiness—are not separate, or separable.

We have also seen that the recognition (*samadhi*) of the revealing truth (*aletheia*) of the very nature of mind—this nonlocal vast expanse that is the nondual ultimate truth (*paramartha satya*) of our being here—is the wisdom of emptiness. It spontaneously expresses itself in material form as loving, kind compassionate conduct in this chaos of this all too real world of dualistic relative-conventional truth (*samvriti satya*). This union of compassion and wisdom is, on the accord of our wisdom traditions, the cause of both relative and ultimate human happiness.

It is this noetic (*matter, mind, spirit* unity) reality of the here now inseparability of matter and spirit, form and emptiness, relative Science and ultimate Reality that is now abroad in the

brave new world of post-quantum science, culture and spirituality. Is not this prior ontic unity of our objective and subjective voices the urgent, radical recognition for human beings?

Contemplative mindfulness and insight practice (secular or non-secular)—gradually bestows this continuity of meaning recognition that is the potential moment-to-moment realization of a trans-rational but not transcendent cognitive state of knowing this always present here now, non-propositional, non-prescriptive open awareness presence (*vidya, rigpa, shekina*). Such practice may result ultimately in the “meditative stabilization” (*yogi-pratyaksa/samadhi/satori/moksha*) of our now present ultimate primordial awareness wisdom (*gnosis, jnana, yeshe*) right here in the chaos of relative-conventional spacetime reality. Recall that all of this postmodern difference is at once an “always already” present sameness (*samata*), an auspicious interdependent (*pratitya samatpada/tendrel*), natural and ontologically necessary primordial unity.

Such is the resolution of the *really* “hard problem of consciousness”—the problem of soteriology (psycho-spiritual awakening/enlightenment/liberation)—an Archimedean point of balance between the bifurcated reality that is our two paradigmatic worlds of form and emptiness, objective Science and subjective Spirit. The continuity of remembrance of, and identification with this unbounded unified whole is “The Meditation”. As this unity is who we actually are, our “supreme identity” with the whole, *dharmadhātu*, we learn, with practice, how to “simply relax into it,” each moment *now*. Lest this all seem utterly Panglossian, let us remember that such cognitive psycho-spiritual stabilization takes a lifetime (or many lifetimes) of practice under the guidance of qualified masters in the context of the spiritual community. And it all begins with the correct View.

Thus from the continuity of practice of this nondual wholeness/emptiness feeling cognition spontaneously arises degrees of the compassionate lifeworld conduct that translates self-centeredness into other-centeredness. Is this not the great secret of human happiness? Buddha, Jesus, Shankara, Fichte and Hegel have told it. From such an ethic of selflessness gradually and spontaneously arises our individual surrender (*wu-wei*) to the good of the whole. *This is being the whole*. And that, on the accord of the wisdom traditions, is our moment-to-moment *choice* of the ultimate happiness (*eudaemonia, beatitude, paramananda, mahasuka*), the happiness that cannot be lost. Here, there is nothing left to do, so that everything we do is open, authentic and kind. And this is the noetic ultimate meta-cognitive ground through which, ultimately, we must address our all too human problems of knowledge, morals and governance.

Hence, this inherent always present numinous presence of unbounded wholeness is the conceptually ineffable, but not contemplatively ineffable nondual “one truth”—invariant across all cognitive reference frames, objective and subjective—whose recognition makes us happy, and whose realization sets us free. From such an epistemologically pragmatic and pluralistic, yet ontologically monistic understanding arises the meta-cognitive basis of Toynbee's “rising culture”, a latter day post-Postmodern plurality of voices that defines a new cultural/perspective, a noetic meta-narrative of human body/mind/spirit evolution—an integral noetic revolution—and its requisite post-quantum noetic ontology.

Appendix A

Dzogchen, The Great Perfection

“The nature of mind is the unity of awareness and emptiness.” - Shakyamuni Buddha

- I. **The View:** The Buddha’s Two Truths are “one taste,” all views condensed in essence to a single point.
- A. From the view of Absolute or Ultimate Truth *Dzogchen*, the Great Perfection, is a primordially pure whole, a single all-inclusive sphere, transcending, pervading, embracing *samasara* and *nirvana*, all phenomena, beings, views arising in mind (*sems*), prior to concept and belief. *Dzogchen*, the vast causal nexus, transcends spacetime causality. It is the very Nature of Mind (*sems nyid*) nondual and perfect “from the very beginning.”
 - B. From the view of Relative-Conventional Truth *Dzogchen* is our prior nondual unity of:
 - 1. The **Base** or source with its corresponding **View**. “Recognize your own true nature.”
 - 2. The **Path** with its corresponding **Meditation**. “Choose the state of presence, beyond doubt.”
 - 3. The **Fruit** or Result with its corresponding **Conduct**. “Continue in the state with confidence.”
- II. **The Base** (Ground): *Gzhi*, Buddha Nature, the Supreme Source, the Nature of Mind, *Yeshe/jnana* .
- A. View: the three aspects, or Primordial Wisdoms of this emanation Base/Source present in all arising form.
 - 1. Its **Essence** is **Emptiness** (*shunyata*), the vast expanse of primordial purity (*kadag*).
 - 2. Its **Nature** is **Luminosity/Clarity** (*gsal ba*), clearlight mind of spontaneous presence (*lhundrup*).
 - 3. Its **Energy** rays emanate continuously as light/motion, (*tsal/rolba*), physical/mental phenomena, and in human conduct through spontaneous presence as wisdom-compassion (*thugs re*), the Four Boundless States/Four Immeasurables: love, compassion, joy, equanimity (relative *bodhicitta*).
 - B. **The Trikaya of the Base** (the Essence Body, *Svabhavikakaya*): Absolute *Bodhicitta*, The Supreme Source, the Three Vajras, Three Gates, or Three Bodies of the *Trikaya* of the Base. Primordial Energy of the Base arises in spacetime (dependent origination/*pratitya samutpada*) as the mandala of our own vajra.
 - 1. **Body:** *Dharmakaya*, *Om*, *Adi Buddha Samantabhadra*, crown, *Energy*.
 - 2. **Voice** (speech): *Sambhogakaya*, *Ah*, *Buddha Vajrasattva*, throat, *Nature*.
 - 3. **Heart Mind** (wisdom mind): *Nirmanakaya*, *Hum*, *Buddha Shakyamuni*, heart. *Essence*.
- III. **The Path:** Development Stage, the way of practice. *Letting be, as it is*. **Meditation** on Body, Voice and Mind; opening heartmind, seeing ignorance/desire of the five *skandhas* of attachment to conditional existence and its three marks: impermanence (*anitya*), no-self (*anatman*) and suffering. Purification of misdeeds. Awakening *bodhicitta* of intention and action. The Two Accumulations: wisdom (*prajna*) and merit (means/*upaya*) as compassion (*karuna*). “Descend with the View, ascend with the Conduct.”
- A. The Three *Dzogchen* Meditation Series: *Semde*, *Longde*, *Mengagde* (*upadesha*). Introduction, recognition and stabilization of *rig pa/vidya* (“brief moments, many times”) or Mind Essence, the self-perfected, always present state of presence of our Supreme Source, the primordial state of each being. Development of deep heartmind devotion for the master and all enlightened beings (*rigzin*), and compassion for all unenlightened beings. The five poisons (ignorance, desire, anger, pride, envy) are the five wisdoms. Pure vision: abiding without concepts “It is already accomplished” (Garab Dorje).
 - B. The Secret *Upadesha* (the master’s pith instruction): The *Longchen Nyinthig* is the *Secret Heart-Essence of the Great Expanse*, *Yeshe Lama*, *Trekchö* (wisdom/purity) and *Togäl* (means/presence) practices follow *ngöndro*, the foundation practices. Obstructions to living the teaching self-liberate into *rig pa*, the luminous primordial awareness wisdom of their Supreme Source (*cittadhatu*), beyond concept, belief, fear and hope.
- IV. **The Fruit** (Result): Perfection Stage. Realization of our base/source; means (male), wisdom (female) unified; liberation from the suffering of ignorance that is desire-seeking-attachment and fear-anger-aggression.
- A. Realization and integration of the View, our prior unity of awareness and emptiness, (spontaneous presence and primordial purity), through *shamatha/vipashyana* practice. Continuity of *rig pa*, primordial presence demonstrated through **The Conduct**. From “undistracted non-meditation” the search falls away as *samadhi* of wisdom-compassion-love arises spontaneously. Realization of nondual refuge and *bodhicitta*. The Three Times—past, present, future—are the on-going timeless instant of *rig pa*, the fourth time (*turiya*). The Two Truths—relative and ultimate— Three Bodies of the Base, a realized unity. *Emaho! Mahasukaho!* The Great Happiness that cannot be lost.
 - B. Realization (full *bodhi*) of the Great Transfer of the Body of Light (*ja lus*), Rainbow body, the identity of primordially pure Essence, Nature and Energy of the Supreme Source that is *Yeshe*, nondual primordial wisdom (*jnana*, *gnosis*) of emptiness, *prajnaparamita*, mother clear light of buddhahood.

Svaha.

Appendix B

The Idols of The Tribe: The Metaphysics of Modern Science

Science and its scientists must make conscious their *a priori* preconceived metaphysical presuppositions, value assumptions and beliefs underlying modern scientific ideology and methodology. These “idols of the tribe” become the “false absolutes” of science that belie the interdependence of subject and object, experimenter and experiment. Scientific study and research into subjective aspects of mind and consciousness is thereby precluded. For example, the view that the whole of reality is objective and physical, or that it is subjective and spiritual, is a judgement of value, not a scientific fact. These unproven and unprovable metaphysical assumptions and beliefs are the totems or *mana* of scientism, the cult of modern and postmodern scientific materialism that permeates the view of the physical and social sciences, humanities and our global mass culture. This quite unscientific protoreligion is largely responsible for our catastrophic reduction of subjective spirit to mere objective consumable matter. We may now summarize these unexamined exclusionist biases, assumptions and beliefs.

1. **The Principle of Physicalism (Material Realism):** An essentially pre-given separate and independently existing, exclusively *physical* spacetime reality exists as the basis of all appearing phenomena, *a priori*, independent of observation or experiment by any sentient observer (the “myth of the given”).
2. **The Principle of Objectivism:** This purely physical reality is ultimately knowable to separate human observers via objective, quantitative scientific observation, experiment and mathematical analysis (although objective proof has remained unfindable for 400 years). Reality is ultimately objective. The mind’s subjective personal and transpersonal phenomena are not proper study for objective science (the “taboo of subjectivity”).
3. **The Principle of Material Substance Monism:** There is no reality other than, or transcendent to this objective physical reality, and no truth or truths discoverable or existant beyond the view of this objectivist material realist “scientific method.”
4. **The Principle of Reductionism:** All subjective experience—private, first person, mental, emotional and spiritual events—can be reduced to their objective, purely physical electrochemical neural correlates. Mind, experience, behavior, God are nothing more or less than an “emergent property,” an epiphenomenon or “artifact” of physical brain and its physical-chemical processes. Causality is always “upward” from physical to mental. “Downward causality,” mental to physical is ideologically precluded.
5. **The Principle of Local Universal Causal Determinism:** All events are determined by their local, purely physical causes. If we knew all the initial causal conditions, then we could predict or determine with complete certainty all of the effects (objects/events) in the universe.
6. **The Closure Principle:** This purely physical realm of all existence is “causally closed” to any non-physical causal explanation. The validity of any causal explanation beyond the purely physical dimension is implicitly or explicitly denied.
7. **The Principle of Universalism:** The preceding principles are the only correct explanations as to the nature of reality, its discovery, prediction, explanation and interpretation. No other views or methodologies can lead to truth. All differing views are in error.

(Thanks to Werner Heisenberg, Neils Bohr, Willis Harmon, Alan Wallace, Ken Wilber, David Finkelstein, Adi Da Samraj, Richard Tarnas, Owen Barfield, Amit Goswami and the many astute critics of Scientific Materialism.)

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Appendix C

The Structures of Consciousness: A Review of The View

One Ground, Two Truths, Three Bodies, Four Views, Five States

Exoteric/Outer, Waking States, Gross Body: Dualistic, indirect, relative-conventional truth, concept-belief; empirical subject-object knowledge (*doxa, namtok*, opinion, information, third person objective scientific data). *Manovijnana*, the gross waking state (physical, emotional, mental). Empirical spacetime Gross Body energy dimension; exoteric/outer conceptual and experiential belief in a separate material reality and a separate God. The Bardo of living. Ground stage introduction to the View. *Shamatha*, mindfulness meditation practice. *Nirmanakaya*.

Esoteric/Inner, Dream State, Subtle Body: Dualistic, “lesser esoteric” form; meditative-devotional first person subjective recognition of the “state of presence”; discriminating, quasi-conceptual knowledge-wisdom (*dianoia, sophia, prajna*). Deity realms. Subtle Body energy dimension, *klisha manovijnana*, Saguna Brahman, Ishvara, esoteric/inner but separate God.

Path stage. The Bardo of Becoming. Quiescence and introspection practice *Nirmanakaya*. Greater Esoteric/Innermost Secret, Deep Dreamless Sleep State, *Causal Body: Alayavijnana*, Causal Body energy dimension. Wisdom of *Satchitananda*, Fruition stage. The Bardo of *Dharmata*/Ultimate Reality. Deity meditation and *Vapashyana* or insight meditation. “Path Luminosity.” *Sambhogakaya*.

Non-Dual State/Turiya, Essence Body: *Dharmakaya* realized through the transcendent witness presence, beyond dualistic, subject/object, two-valued concept, belief and even the subjective bliss of deep contemplative experience. Final fruition stage. Realization of the prior unity of the Two Truths (relative and ultimate), the three *kayas* and three *vijnanas*. The primordial Tao/emptiness of Absolute or Ultimate Spirit lived with its cognitive, meditative and compassionate ethical conduct finally stabilized and actualized in the lifeworld (transcendent primordial awareness wisdom mind, *prajnaparamita, noesis, gnosis, christos, logos, vidyal rigpa, yeshe*); Plato’s *noetic-logic* final development stage); *mahasiddha* Christ-Buddhahood. This is *Svabhavikakaya*, prior unity of the *Trikaya* of the Base (*gzhi*), body of pure *alaya (amalavijnana)*, *turiya* “the fourth,” realized as *turiyatita*, the final non-dual fifth state.

“Ground Luminosity.” *Atman* that is *Nirguna Brahman*. Non-Dual “Real God,” beyond all theistic concept and belief. Fruition of *Mahamudra, Madhyamaka* and *Dzogchen*. These four views or dimensions display as a prior unity in the unbounded whole. This perfectly subjective whole transcends yet embraces all arising objective phenomena (the Two Truths).

These five innate states of consciousness, supported by their four corresponding energy bodies or dimensions are potentially, momentarily available *directly* to each self-conscious being. However, the ascending levels of meditative stability and realization (*samadhi*), are non-ordinary aspects of these five states that result only from the contemplative mind training of the spiritual Path (*lam*).

The various levels of understanding of the interdependent relation of these four views of the “two minds” or Two Truths of this one great sourceground—the vast Reality that is non-dual Spirit Itself—constitute both the exoteric-conventional and the more subtle, esoteric-contemplative *View* of this supreme source of all appearing reality for the religious and philosophical wisdom traditions of our primordial Great Wisdom Tradition. Just so, from the View emerges the *Path* to the realization of that unbounded whole, and its *Fruition* or result in the everyday lifeworld and ethical conduct of the individual, and thereby the spiritual and moral worldview and its potential realization for the sociocultural whole.

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Appendix C: Part II

The Structures of Consciousness in Advaita Vedanta and Mahayana Buddhism*

Life Stage/Mind State (evolutionary, developmental)	Consciousness Dimension/State (<i>avastha</i>) (non-developmental, inherent in all beings.)	Corresponding Energy-Body/ <i>Kosha</i> Dimension/ <i>Vijnana</i> (Body, Mind, Soul, Spirit)
<p style="text-align: center;">1, 2, 3 <i>Egocentric</i></p> <p>Physical, Emotional, Mental Stage; Individuation of lower mind. Dualistic material seeking strategies dominate the view and behavior. Sleepwaiting denial of spirit-presence. Exoteric, relative-conventional response. Gross ignorance of the essencelessness and impermanence of the five skandhas of existence and the five sense consciousnesses.</p> <p style="text-align: center;"><i>Om Gate. . .</i></p>	<p style="text-align: center;">Waking State (Exoteric) (<i>vaishvanara/jagrat</i>)</p> <p>Intentional, ego-motivated, desire-mind awareness, estranged and ignorant (<i>avidya</i>) of non-dual <i>Atman</i> that is Brahman. Empirical reality. Subject-object separation and dependence. The physical and lower mental phenomenal worlds. Physical and emotional body of desire. Lifeworld ruled by fear and hope. Prepersonal to personal. The Bardo of Living.</p> <p style="text-align: center;"><i>Nirmanakaya.</i></p>	<p style="text-align: center;">Gross Body</p> <p>Gross physical matter-energy body (<i>annamaya-kosha</i>). Life, <i>Prana</i> or Emotional Body (<i>pranamaya-kosha</i>). The Quantum potential. Mental Body (<i>manomaya-kosha</i>), <i>manas</i> desire-mind/sense-mind (<i>citta</i> or <i>sems</i>). Brahman as Virat. Conditional self and its identities. The five <i>skandhas</i>/ sense consciousnesses (<i>panchdvara-vijnana</i>) plus mind (<i>manovijnana</i>)</p> <p style="text-align: center;"><i>Om...</i></p>
<p style="text-align: center;">4 <i>Ethnocentric</i></p> <p>Spiritual development ground and path stage; dualistic conventional religious and beginning mystical seeking; finding the master; conditional <i>savikalpa samadhi</i>; the lesser esoteric response. <i>Shamatha</i> mindfulness practice. The <i>Mahatman</i> or essence-self recognition; diety practice. Spiritual materialism. Path of form. Kindness. Quiescence practice.</p> <p style="text-align: center;"><i>Para Gate. . .</i></p>	<p style="text-align: center;">Dream State (Esoteric) (<i>svapna</i>)</p> <p>Prepersonal, preconscious, subtle body of desire. Non-empirical illusory (<i>maya</i>) subject-object independence. Objective, relative-conventional realism. Beginning compassion. Fear and hope. Personal to transpersonal. "State effects" not yet "trait effects." The Bardo of Becoming.</p> <p style="text-align: center;"><i>Nirmanakaya</i></p> <p style="text-align: center;">Deep Sleep State (Greater Esoteric) (<i>formless sushupti/ prajna</i>)</p> <p>Transpersonal, transrational; profound, wise compassion. A lifeworld devoted to surrender, renunciation and service.</p>	<p style="text-align: center;">Subtle Body (<i>sukshma-sarira</i>) (<i>vijnanamaya-kosha</i>)</p> <p>Transcends & embraces previous <i>koshas</i>. <i>Buddhi</i>, higher mental, <i>citta</i>, reflecting and discriminating mind. The will. Intellectual and subtle dharma understanding. Beginning insight and bhakti/devotional meditation (<i>dhyana</i>). Path of the yogis/saints (love wisdom). Brahman as Prajapati or Hiranyagarbha. <i>Klishta-Manovijnana</i>, subtle body, the root of ego-I.</p> <p style="text-align: center;"><i>Mani...</i></p>
<p style="text-align: center;">5, 6 <i>Worldcentric</i></p> <p>Spiritual completion fruition stage; deity, formless and <i>cosmic</i> mysticism; the greater esoteric response, <i>vipashyana</i> practice. <i>Moksha-nirvikalpa samadhi</i>. Karma ceases only when in <i>turiya</i> (<i>vidya/rigpa</i>); compassionate transcendent Witness practice, Dzogchen, Essence Mahamudra. Frequent "clicking" from asleep to awake states. Insight practice.</p> <p style="text-align: center;"><i>Parasamgate. . .</i></p>	<p style="text-align: center;">Turiya ("The Fourth") (The innermost secret, non-dual transcendent Witness)</p> <p>Realization (liberation) of personal identity with Absolute Reality, Brahman, Buddhahood, primordial, non-dual Spirit Itself in whom arises all phenomena. Great compassion. Transcends and includes the previous relative states. The timeless "fourth time," prior unity of <i>Svabhavakakaya/Trikaya</i> of the Base; emptiness (<i>shunyata</i>) realized through <i>yeshe/jnana/gnosis</i>, the non-dual Primordial Awareness Wisdom. This realization is <i>turiyatita</i> (<i>sahaj</i>) the fifth state.</p> <p style="text-align: center;"><i>Dharmakaya</i></p>	<p style="text-align: center;">Causal Body (<i>karana-sarira</i>) (<i>anandamaya-kosha</i>)</p> <p>Soul, transcendent mental, wisdom-spirit-bliss; path of sages arhats, bodhisattvas 8th & 9th <i>bhumi</i>. Non-dual Witness practice. Causal dimension to non-dual Absolute. Saguna Brahman as <i>prana-vayu</i> or <i>sutratman</i>.</p> <p style="text-align: center;"><i>Alayavijnana</i></p>
<p style="text-align: center;">7 <i>Theocentric</i></p> <p>Spiritual perfection stage; final fruition, alpha pure non-dual realization; full <i>bodhi</i>; <i>Atman</i> identity with Brahman; no more learning; muni; transcendent integration of conditional self in lifeworld (<i>moksha-sahaj samadh</i>), beyond fear and hope. Karma ceases; Maha-rishi, Christ-Buddhahood. Realization of <i>Kham Brahm</i>.</p> <p style="text-align: center;"><i>Bodhi Svaha</i></p>	<p style="text-align: center;"><i>Atman</i></p> <p>The non-dual, untainted divine presence (<i>vidya, rigpa, logos</i>), Supreme Identity, the Witness (<i>saksin</i>) that is identical to Nirguna Brahman, the Supreme Source. Transcends and embraces previous samadhis, <i>koshas</i> and all conditional experience. Mouna, the great Peace in the Silence. Om Shanti Om. Tao, shyunyata/emptiness, <i>Dharmakaya</i>. The unobstructed Pure <i>Alaya</i> (<i>amala-vijnana</i>). Buddha Nature/Ultimate Mind Nature (<i>sems nyid/ cittata, gnosis</i>). Tao.</p>	

* The multidimensional pie of Spirit descending as phenomenal reality and the ascending realization of its non-dual Source is sliced in slightly different ways by different Wisdom Traditions, and even within traditions. Moreover, although the *koshas* of Vedanta and the *vijnanas* and *kayas* of Buddhism generally correlate, there is at present, no agreement on the definitions and correlation of consciousness dimensions, lifestages, bodies, levels, structures, and mindstates. ©2005, David Paul Boaz, www.davidpaulboaz.org

Appendix D

Being the Primordial Awareness Wisdom*

The Non-Meditation That is Happiness Itself

Now is the moment we abide in primordial essence
Luminous nature of mind
empty awake awareness itself

Whatever experience arises
Pleasant neutral unpleasant
no need to change it

Whatever arises let it be
without judgement positive or negative
without past or future
without attachment or aversion
without affirmation or denial
without closeness or distance

Whatever arises is pure clear light of mind
opening into the very ground of being
Thus whatever arises is liberated

Now let it be exactly as it is
Perfect openness
Perfect space
As it is already accomplished
Simply relax into it

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Appendix E

Toward an Integral Ecology of Mind

The barrier between subject and object does not exist. Subject and object are only one.

–Werner Heisenberg

What's in a Name? The normal obscuring sectarian bias regarding our own views, opinions and beliefs may be somewhat mitigated by an awareness that the following key terms of our primordial Great Wisdom Tradition are mere conceptual relative-conventional truths, useful archetypes and metaphors for the ultimate truth that is the utterly ineffable great unbounded whole, intrinsic primordial awareness that is non-dual Reality Itself. These signs symbolize and support our *direct*, noetic non-conceptual, recognition, then stabilized realization and ethical fruition of the great mystery of the *Word-Logos*, one breath of many voices, fugue of the presence of the source that steadfastly links us to unseparate Ultimate Spirit. This great Reality is the prior, fundamental underlying unity, our primordial sourceground that is the very Nature of Mind, the “Big Mind” in whom we all appear and participate, and its primordial awareness wisdom through whom we understand, then realize this great process.

The Bright. For example, *Tao, Ta'i Ch'i, Wu/Mu, Zen, Purusha, Nirguna Brahman, Satchitananda, Samantabhadra, Shunyata* (the Great Emptiness), *Tathata* (Suchness), *kadag/gzhi/The Base, Longchen* (the Great Expanse), *Dharmakaya, Dharmata, Mahamudra, Apeiron/Chronos, Anthropos, Urgrund, En Sof, Fitrah, al-haqq, Bathos/The Depth*, and the I AM of *Abba* the primordial Father, all refer to the ineffable, perfectly subjective interdependent non-dual prior unity of all that is. Although this great awareness continuum is known by these and many other names, it is always the still womb of our Great Mother (Prajnaparamita, Shakti, Isis, Maria), indivisible, divine, Supreme Source or Base of all finite objective and subjective arising phenomenal reality.

Relative Motion. Just so, the light-energy-motion that appears as the lifeforce of our bodymind with its sentient experience is this continuously arising relative spacetime phenomenal reality descended from our perfectly subjective primordial sourceground. This light/life energy of form is *ch'i, prana/vayu, tsal/lung, pneuma, spiritus, ruach, an-Nur, Rupakaya, pleroma, light*.

Being Here. The ever-present Witness of our primordial sourceground is this pure intrinsic awareness presence of that ultimate reality, always already spontaneously present and fully awake at the spiritual heart of each human being. This presence is known as *vidya-rigpa, logos-christos, parousia, purusha, atman-saksin, ming, tawhid, shekhina*, in the *turiya* of the moment Now, whether or not it is recognized by individual participants of this great whole. This is the presence of our compassionate wisdom mind that recognizes, then realizes the unbounded whole that is Reality Itself. This is the awareness that is the ultimate truth (*paramartha*) of our innate, non-dual transcendent Primordial Awareness Wisdom—*Gnosis, Jñana, Yeshe, Noesis, Fana, Shakti, Samantabhadri, Prajnaparamita, Tathagatagarbha*. This is our primordial wisdom mind that continuously recognizes and realizes itself as ultimate essential Mindnature, the “unbounded” Whole that is our Supreme Source.

Who Is It? How shall we accomplish this great realization? Through *dhyana* (meditation, zen, *gompa*) under the guidance (*satsang*) of a qualified living master we stride the spiritual path. This is the great work (*sadhana*) to be done. We may then come to realize, then actualize in the world—for oneself and for others—that prior unity of wisdom and compassion that is “Ultimate Happiness Itself” (*ananda, mahasuka, eudaemonia*), the fruition of the “innermost secret” View of this great process. Such a realization is, this moment now, sleepwaiting in the eternal womb of our Great Wisdom Mother, infinite potential of the compassionate, continuous *samhadi* of certainty, equanimity and joy that is the heartseed witness presence of our ever-present Christ-Buddha Nature (*Christos, Tathagatagarba*). It is *That (Tat)* according to the masters of humanity's Great Wisdom Tradition, that is the essential Nature of Mind (*cittata, sem nyid, gnosis*), our very Mind Essence (*svabhava, cho nyid, asti, ousia, eidos*) that is the actual Supreme Identity and potential ultimate happiness of each one of us, and indeed, of every sentient being in every dimension of every world system. Who is it? *Tat tvam ami!* That I Am! Without a single exception.

Appendix F

Being Here Reflections on the Nature of Mind*

*What does it matter what poetry is?
All that matters is the eternal movement behind it.*
-Dylan Thomas

What is this eternal movement? What is the nature or essence of mind who is aware of it? Who is it that moves in this beauty, and shines awake? In whom does this all arise?

The energy that we are arises and descends each moment from its great sourceground as movement, relative motion in space and time. This ultimate source or matrix of the light energy that is organized as matter is prior to time, an infinite non-dual subject/object unified field. It has many names. It is utterly ineffable. Humanity's Wisdom Tradition, including recent quantum physics, views this ground of physical and mental forms unfolding as a primordial unbounded whole in whom is enfolded the perpetual mystery of all that is. This supreme source transcends yet embraces all phenomena arising therein. Perception ruled by conceptual mind sees only the parts. Wisdom mind understands, then acts in conscious relationship with the whole. Wisdom knows "Energy is Eternal Delight." Sublime beauty. Great joy for us. How then shall we move from being apart to being this whole?

It is told through our Great Wisdom Tradition—that stream of radical truth that flows through all traditions—of the non-dual singularity of this whole there are "Two Fundamental Truths," two ways of being here. We live in two worlds at once! *Ultimate Truth* is the vast expanse of the whole itself, all embracing non-dual Spirit that is our "Big Mind." This selfless, pure intrinsic awareness cannot be grasped by the concepts and beliefs of the realm of *Relative Truth* that is "Small Mind," the dualistic, subject/object separated reality of our perceptual and conceptual knowledge and experience. However, the ultimate unbroken whole—our acasual perfectly subjective source embracing all arising physical and mental objects—informs, enlightens and delights our everyday relative cause and effect world. It is profound. Yet, wonder of wonders, it is always fully present and awake at the Heart. At our spiritual Heart we may touch it. Here, undreamt of in the thoughtful slumber of human reason and belief, beyond hope and fear this, our all inclusive base of reality—reality itself—is experienced by all human beings, brief moments, perfectly, just as it is. Whether or not we recognize it. Wisdom recognizes it. Wisdom trusts this awakening. How then shall we awaken to this uncommon wisdom?

Primordial Wisdom continually recognizes itself in the paradox of the natural perfection of all our experience, shines awake through the mind and abides at the Heart of all beings. Calm, clear, delighted. Great beauty of it. Here is the happiness that is always present. Here is the happiness that cannot be lost. No need to seek it. No need to improve it. Good to practice it. Practice consumes conceptual/emotional veils that seem to obscure its constant presence. Practice recognizes, not tomorrow, but here and now this primordial wisdom seed at the Heart, then realizes, then actualizes in the world—for oneself and for others—the great happiness. Practice is the imperfect intention, then action of our perfect, innate, selfless wisdom mind. Such wisdom naturally intends kindness toward all beings. Wisdom delights in kindness. This *wisdom of kindness* arises spontaneously through occasional, then moment to moment recognition of the all-inclusive unbounded whole that is our origin and aim. This prior essential great perfection is the vast love that binds the worlds. That force is essence of our being, the very nature of mind. This bright enlightened Heart essence, by whatever name, is who we are. Relax now into *That* and be supremely happy. So it is told by the masters of our Great Wisdom Tradition.

Thus it is, from such a ground do we descend, breath of one voice, bright fugue these many colors, forms falling, light steadfastly mirrors our never separate, ever present presence of this supreme source as we ascend again, each moment return to that in whom this all arises. Who is it? *Tat tvam ami*. That I am. Without a single exception.

David Paul Boaz (Dechen Wangdu)

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Appendix G

Realizing Human Happiness Toward a Noetic Science of Matter, Mind and Spirit*

Integrating Science and Spirit. In the 2nd century CE two great scholar-masters, Nagarjuna in the East and Plotinus in the West, began the Non-Dual Revolution in our Great Wisdom Tradition that is only just now unifying the wisdom traditions of East and West. This non-dual *View* understands the ontological interdependence—the prior unity—of all arising phenomena with their primordial matrix source. There is no *essential* separation, no intrinsic duality of knowing subject and appearing objects. Mind and body, spirit and matter are an unbounded unified nondual whole.

As the developmental dialectic of human emotional spiritual evolution proceeds, and the cognitive estrangement of global modern and postmodern scientific materialism recedes, a “new science of consciousness” has emerged. This new science has discovered an integral noetic (subject/object unity) paradigm that integrates our *subjective cognition*—the “soft,” interior “first person” personal experience, and the transpersonal contemplative technologies of the spiritual paths of our Great Wisdom Tradition—with *objective cognition*, the “hard,” exterior “third person” data of the neurosciences. We need hard neuroscience to explicate the hardware of brain, and a soft, contemplative science of consciousness to penetrate the software of mind. An integral science of mind must utilize this “doublet” of both objective (and interobjective) and subjective (and intersubjective) methodologies as we evolve, individually and collectively, toward our next lifestage.

Neuroscientists utilizing functional MRI technology with the Dalai Lama’s highly trained meditators have discovered an astonishing plasticity of the brain’s emotional circuits. This discovery has demonstrated that negative human emotions (fear/anger) may be healed and positive emotions (compassion/joy) generated through meditative mind training. Moreover, these temporary positive “state” changes may become, through the practice of the *Path*, permanent personality “trait” changes as brief glimpses and experiences become stable consciousness structures. Contrary to the dreary neurogenetic determinism of the old paradigm of the social sciences, negative emotions are not “hardwired” into the brain. We are not evil. Nor does there exist a fixed individual “happiness set point” selected by our genes. We are free to choose “basic goodness” —happiness itself—this presence of the whole that is always already present (The Dalai Lama’s *Mind & Life Series*, Vol. 10)...

Choosing Reality. Thus it is, the non-dual *View* and the compassionate, “be here now” practice of the *Path* can transform the mind, and this changes the self-centered behavior that cloaks the *wisdom of kindness* as it spontaneously arises from our primordially present wisdom mind. An effective lifeworld practice frees us from destructive negative emotions, and from blind faith in the fundamentalist protoreligion of scientific materialism—the cult of scientism—with its naïve and catastrophic reduction of all-embracing non-dual Spirit to mere consumable matter. This new science of consciousness is an urgent juncture in the integration, then unification of Science and Spirit, and the emergence of a truly integral noetic science of mind, nature, ethics and spirituality...

The “Hard Problem,” and the Really Hard Problem of Consciousness. This incipient integral science of mind has cast new light upon the perennial “Mind-Body Problem.” This is the “Hard Problem” for Western cognitive science, the neurosciences and contemporary philosophy of mind. The problem may be expressed as the “explanatory gap” between exterior objective physical brain and interior subjective awareness states, in short, the gap between body and mind. Can the many dimensions of mind actually be reduced to merely objective physical/chemical “emergent properties” of brain processes, as the old dualistic scientific materialist paradigm insists? Will scientists and philosophers ever see that this material realist belief presupposes the very consciousness necessary to formulate a denial of consciousness? The new integral paradigm relaxes this “taboo of subjectivity” inherent in the metaphysical dogma of the prevailing material realism paradigm and acknowledges the urgency of an integral science that explores the subjective aspect of mind, particularly the emotions—the prepersonal and personal negative emotions (anger/aggression) that destroy us, and the transpersonal emotions (compassion/joy) that heal us.

Our view of this apparent problem of subjectivity determines the root relation of knowing subject to our perceived objects—the epistemological question as to how and what we can know, and the “ontological problem” as to the ultimate reality of appearing phenomena, our essential or ultimate mode of being here. “No small matter is at stake. The question concerns the very way in which human life is to be lived” (Plato). Note that this perpetual dualism between mind/body, subject/object, self/other, finite appearance/infinite Reality, matter/spirit, humanity/God arises only at the *outer* and *inner* levels (concept and belief) of the Four Views that are the four levels of understanding and explanation. The post-materialist, transconceptual *innermost secret* and the *non-dual* understanding views phenomenal reality as conventionally or relatively real, but its ultimate nature or essence is known to be an ontologically prior, interdependent yet non-reified unity of light and emptiness with no essential, permanent, intrinsic or absolute existence (*Shunyata, Tao*). We live in two worlds at once! These conceptual categories, these two realms of being—Relative and Ultimate, “Small Mind” and “Big Mind”—appear throughout our Great Wisdom Tradition as variations on the perennial duality of the essential unity of the “Two Truths” and these four levels of understanding.

There is a subtler aspect to this problem of subjectivity. The *really* hard problem for human beings is the healing and unification of this primordial split, the apparent duality between these Two Truths that are our two worlds of experience. The objective, *finite* existence of our bodymind and its actions (ethics) in the relative conventional world of cause and effect (karma) must be reconciled and reconnected to our perfectly subjective *infinite* sourceground, the vast, acausal, atemporal unbounded whole, our non-dual supreme identity in whom this all arises and participates. But how?

Zen Mind, Wisdom Mind: A Most Unusual Paradox. An enduring commitment to the nondual *View* and to the relative *Path* lifts the apparent obstruction—the negative emotions of the separate ego-I—and reveals the fully awake, always present presence of the supreme source, then gradually, then suddenly yields the stable *Result*, the fruit that is primordial wisdom mind. This is the realization of the prior essential unity of the Two Truths, these two modes of being the unbounded whole. “This result is no different at the pinnacle of enlightenment than it is at the primordial base” (Adzom Rinpoche). The spontaneous compassionate expression of this realization in the world is ultimate happiness itself. What to do?

Here is the crazy, miraculous paradox: not only do we realize happiness by not seeking happiness—by “letting it be as it is” —but we utilize the ignorance of “Small Mind” to realize “Big Mind,” our perfect wisdom mind! It is only through transformation of the negative emotions—the ignorance—inherent in being in the realm of *relative* spacetime reality, that we realize the “crazy wisdom” that is the radical freedom and happiness inherent in the all-inclusive embrace of *ultimate* reality, the conceptually unstructured beautiful prior unity of this present moment now. Great joy!

View, Path and Result. The *View* provides both conceptual and nondual insight, and an increased tolerance for the cognitive dissonance (contradiction, paradox, anxiety) of the Path. The *Path* provides the method, that ascendingly subtler strata of teaching, practice and courage necessary to deconstruct the selfish, destructive ego-I. Together these two awaken always present wisdom mind that develops, then completes the *Result*, the fruition of enlightenment that is radical Happiness Itself. On the path to wholeness “development is envelopment” (Plotinus) at ever subtler, more inclusive levels of Spirit embrace.

From the view and understanding of the *outer* and *inner* levels or dimensions of the Four Views this process of the path requires intention and effort—courage, discipline and perseverance. However, from the view and understanding of the timeless *innermost secret* and *nondual* dimensions, “It is already accomplished from the very beginning” (Garab Dorje). No problem at all. Now, there is nothing left to do. So all that we do is selfless, authentic and kind.

When we forget ourselves we are actually the true activity of the big mind or reality itself. When we realize this fact, there is no problem whatever in this world. The purpose of our practice is to be aware of this fact... It may be too perfect for us, just now, because we are so much attached to our own feeling, to our individual existence... When we reach this understanding, we find the true meaning of our life.

—Suzuki Roshi, *Zen Mind, Beginner’s Mind*

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BIBLIOGRAPHY

- Adi Da Samraj, *Eleutherios*, Dawn Horse Press, 1998
- Allione, Lama Tsultrim, *Feeding Your Demons*, Little Brown & Co., 2008
- Barfield, Owen, *Saving the Appearances: A Study in Idolatry*, Faber & Faber, 1952
- Becker, Ernest, *The Denial of Death*, Free Press, 1973
- Begley, Sharon, *Train Your Mind, Change Your Brain*, Ballantine, 2007
- Bell, John, "On the Einstein Podolsky Rosen Paradox," *Physics*, 1964
- Bird, Alexander, *Thomas Kuhn*, Princeton University Press, 2000
- Bitbol, Michel, "A Cure for Metaphysical Illusions," in B. Alan Wallace, *Buddhism and Science*, Columbia, 2003
- Boaz, David Paul, *Phenomenology of Transcendental Consciousness*, unpublished dissertation, 1971
- _____, *Zen: Seeing Our Original Nature*, 2004, www.davidpaulboaz.org
- _____, "Zen and Dzogchen" in *The Nature of Mind: The Buddhist View*, 2006
www.davidpaulboaz.org
- _____, "What Does It Matter What Poetry Is?" www.davidpaulboaz.org
- _____, "Does Buddhahood Have a Cause?," www.davidpaulboaz.org (*Stromata*)
- Bohm, David, *Wholeness and the Implicate Order*, Ark 1983
- Bohm, David and Basil Hiley, *The Undivided Universe*, Routledge and Kagen Paul, 1993
- Bohr, Niels, *Atomic Theory and the Description of Nature*, Cambridge, 1934
- Burt, E.P., *Metaphysical Foundations of Modern Science*, Anchor, 1954
- Chalmers, David J., *The Conscious Mind*, Oxford, 1996
- Clark and Chalmers, "Extended Mind," *Analysis* 58
- Coomaswami, A.K., *Hinduism and Buddhism*, New York, 1943
- Deutsch, Eliot, *Advaita Vedanta: A Philosophical Reconstruction*, East-West Center Press, 1969
- Dōgen, *Shobogenzo* (edited selections), Thomas Cleary, Univ. Hawaii Press, 1986
- Dowman, Keith, *Maya Yoga (Longchenpa's Gyuma Ngalso)*, Vajra Publications, 2010
- _____, *Old Man Basking in the Sun (Longchenpa's Treasury of Natural Perfection [Gnas lugs mdzog])*, 2006.
- Dudjom Rinpoche, *The Nyingma School of Tibetan Buddhism*, Wisdom, 1991
- Einstein, Albert, *Relativity: The Special and the General Theory*, 15th Edition, Crown, 1952
- Feynman, Richard, *QED: The Strange Theory of Light and Matter*, Penguin, 1990
- Finkelstein, D.R., "Emptiness and Relativity," in B. Alan Wallace, *Buddhism and Science*, Columbia, 2003
- Garfield, Jay, *The Fundamental Wisdom of the Middle Way (Nagarjuna's Mulamadhyamakakarika)*, Oxford Press, 1995
- Godfrey-Smith, Peter, *Theory and Reality: An Introduction to the Philosophy of Science*, University of Chicago Press, 2003
- Goswami, Amit, *The Self-Aware Universe*, Putnam, 1995
- Gribbon, John, *In Search of Schrödinger's Cat: Quantum Physics and Reality*, Bantam, 1984
- Harmon, Willis, *The Metaphysical Foundations of Modern Science*, Institute of Noetic Sciences, 1994

Heisenberg, Werner, *Physics and Philosophy*, Harper, 1958
 Herbert, Nick, *Quantum Reality*, Anchor Press, 1985
 H. H. The Dalai Lama, *Dzogchen*, Snow Lion, 2000
 _____, *The Universe in a Single Atom*, Morgon Road, 2005
 _____, *The Middle Way*, Wisdom Publications, 2009
 _____, *Ethics for the New Millennium*, Riverhead Books, New York, 1999
 Hopkins, Jeffrey, *Meditation on Emptiness*, Wisdom 1996
 Huxley, Aldous, *The Perennial Philosophy*, Meridian, 1945
 Jigme Lingpa, *The Dzogchen Innermost Essence Preliminary Practice*
 (translation and commentary by Tulku Thondup Rinpoche), LTWA, 1982
 Jomgön Kongtrul, *The Treasure of Knowledge, Book Six, Part Four,*
 "Systems of Buddhist Tantra," Kulu Rinpoche Translation Group, Snow Lion, 2005
 Klein, Anne C., *Unbounded Wholeness*, Oxford Univ. Press, 2006
 _____, *Knowledge and Liberation*, Snow Lion, 1998
 Kraft, Kenneth (ed.), *Zen Tradition and Transition*, Grove Press, 1988
 Kragh, Helge, *Dirac: A Scientific Biography*, Cambridge University Press, 1990
 Kuhn, Thomas, *The Structure of Scientific Revolutions*, Univ. Chicago Press, 1970
 Longchen Rabjam, *The Treasury of the Dharmadhatu*, Adzom Chögar edition
 _____, *The Precious Treasury of the Way of Abiding*, Padma Publishing, 1998
 _____, *Precious Treasury of the Basic Space of Phenomena (Autocommentary)*
 Padma Publishing, 2001
 _____, *Mind in Comfort and Ease (Samten Ngalso)*, Commentary by H. H. The Dalai
 Lama, translated by M. Ricard and R. Barron, Wisdom, 2007
 Laszlo, Ervin, *Science and the Akashic Field*, Inner Traditions, 2007
 Luisi, Pier, *Mind and Life*, (Discussions with the Dalai Lama), Columbia, 2009
 Margulis and Sagan, *What Is Life*, Simon and Schuster, 1995
 Maturana and Varela, *The Tree of Knowledge*, Shambhala, 1987
 Meyer, Marvin, *The Gospel of Thomas*, Harper, 1992
 Nagarjuna, *Mulamadhyamakakarika*, in Garfield, *The Fundamental Wisdom of the Middle Way*, 1995
 Newland, Guy, *Introduction to Emptiness, Tsung-Kha-Pa's Great Treatise on the Stages of the Path,*
 Snow Lion, 2009
 Norbu, Chögyal Namkhai, *The Supreme Source (Kunjed Gyalpo)*, Snow Lion, 1999
 _____, *Dzogchen the Self-Perfected State*, Snow Lion, 1996
 O'Brien, Elmer, *The Essential Plotinus (Selected Enneads)*, Mentor, 1964
 Pagels, Elaine, *The Gnostic Gospels*, Vintage Books, 1989
 Penrose, Roger, *Shadows of the Mind*, Oxford, 1994
 Pettit, John Witney, *Miphan's Beacon of Certainty*, Wisdom, 1999
 Quine, W.V., *Ontological Relativity and Other Essays*, New York, 1969
 _____, "On What There Is," *Review of Metaphysics* Vol. II, 1948
 _____, "Two Dogmas of Empiricism," *Philosophical Review* 60 (1951) pp 20-43
 _____, *Word and Object*, Massachusetts Institute of Technology, 1960
 Reynolds, John, *Golden Letters, (The Three Vajra Verses of Garab Dorje)*, Snow Lion, 1996
 Ricoeur, Paul, "The Critique of Religion" in *The Philosophy of Paul Ricoeur*,

- eds. Reagan and Stewart, Beacon Press, 1978
- Rorty, Richard, *Consequences of Pragmatism*, Minneapolis, 1982
- Schofield, Russell Paul, *Basic Principles of Actualism*, Actualism Trust, 1993
- Scholem, Gershom, *Jewish Gnosticism and Talmudic Tradition*, New York, 1965
- Schrödinger, Erwin, *What is Life?* Cambridge Press, 1969
- _____, *Mind and Matter*, Cambridge Press, 1958
- Searle, John R., *The Mystery of Consciousness*, NYREV, 1997
- Shankara, *The Crest-Jewel of Wisdom*, Charles Johnson, Thosophical Press, 1946
- Shantideva, *Guide to the Bodhisattva's Way of Life*, B. Alan Wallace, Snow Lion 1997,
also Padmakara Group, Shambhala, 2006.
- Smith, Houston, *Forgotten Truth*, Harper Collins, 1976
- Smolin, Lee, *The Trouble with Physics*, Houghton Mifflin, 2006
- _____, *Quantum Gravity*, Basic Books, 2001
- Sogyal Rinpoche, *The Tibetan Book of Living and Dying*, Harper San Francisco, 1992
- Suzuki, Shunryu, *Zen Mind, Beginner's Mind*, Weatherhill, 1970
- Tarnas, Richard, *The Passion of the Western Mind*, Quest, 1989
- Tulku Thondup, *The Practice of Dzogchen*, Snow Lion, 1996
- Tulku Urgen, *As It Is*, (Vol. I) Rangjung Yeshe, 1999
- _____, *Rainbow Painting*, Rangjung Yeshe, 1995
- Varela, Francisco, *The Embodied Mind*, MIT Press, 1991
- Wallace, B. Allan, *Hidden Dimensions*, Columbia Press, 2007
- _____, *Embracing Mind*, Shambhala, 2008
- _____, *Contemplative Science*, Columbia, 2007
- _____, *Choosing Reality*, Snow Lion, 1996
- _____, *Buddhism and Science*, Columbia, 2003
- _____, "Vacuum States of Consciousness: A Tibetan Buddhist View,"
published online, no date.
- Watts, Alan, *The Two Hands of God*, Macmillan, 1963
- Whitehead, Albert N., *Science and Philosophy*, Wisdom Books, 1965
- Wilber, Ken, *The Marriage of Sense and Soul*, Random House, 1998
- _____, *Integral Spirituality*, Integral Books, 2006
- _____, *Sex, Ecology, Spirituality*, Shambhala, 2000
- Wittgenstein, Ludwig, *On Certainty*, ed. G.E.M. Anscombe, Oxford, 1964
- Wilding, J.M., *Perception: From Sense to Object*, Hutchinson, London, 1982
- Zajonc, Arthur, *The New Physics and Cosmology* (Dialogues with the Dalai Lama),
Oxford Press, 2004