Reflections on Integral Methodological Pluralism

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Abstract

Presented here in two parts are reflections on Ken Wilber’s Integral Methodological Pluralism (IMP). Part one presents four phenomenal domains within the eight zones of IMP that relate to four zone pairs. The purpose of the study is to point out the similarities that characterize the zone pairs, clarify and differentiate the nature of each of the four domains, and particularly to identify and illuminate the specific nature of the phenomena that arise in zones #5 and #7 within the IMP system. Part two of the paper takes up each zone in more detail and provides examples and comments.
Reflections on Integral Methodological Pluralism

This paper presents a synopsis of Ken Wilber’s Integral Methodological Pluralism (IMP) within his AQAL philosophy of Integral Post-Metaphysics (IPM) as presented in the Kosmos II Excerpts (heretofore as “the Excerpts”) and Integral Spirituality. The purpose of the paper is to a) point out and discuss four unique phenomenal domains of the eight zones of IMP in order to, b) clarify the specific nature of zones #5 and #7, c) summarize the eight indigenous perspectives and zones while d) presenting examples of each of the zones. For reasons of space, familiarity with concepts and terms of the AQAL framework and Integral Post-Metaphysics will be assumed. Some views and interpretations of IMP presented in this paper will require a more in-depth treatment than is possible here.

Quadrants, Perspectives, Methodologies, Zones

The Integral Post-Metaphysical AQAL framework attempts what no other philosophical system has in the past, an essential integration of the nondual philosophies of the East with the critical philosophies of the West. IPM is an attempt to articulate a world philosophy unifying the stream of Western post-metaphysics with the stream of Eastern nonduality, a deep and essential linking of the intellectual traditions of Occident and Orient. In his phase five writings Ken Wilber has articulated the outlines of a framework and epistemology that represents the beginning of such a synthesis. Zachary Stein sees in Integral Methodological Pluralism a formal regulative ideal that “represents the radical core of a philosophical impulse that spans centuries” and views it as the most complete expression of a set of regulative ideals or immanent potentials inherent in communicative practices described in the post-metaphysical philosophy of Jurgen Habermas.

Extensive cross-cultural and cross-disciplinary research has established one of the main elements of Wilber’s synthetic framework, the universal domains of experience represented in the four quadrants and four primary perspectives. The quadrants provide the basis for the eight perspectives, eight methodologies, and eight zones of Integral Methodological Pluralism.

The Quadrants: Primary Divisions and Dependent Origination

Wilber’s essential synthesis begins with his observation that in order to establish a world cosmology of any sort, there have to be at least two primary ontological divisions: interior/exterior and singular/plural. Neither of these divisions are prior to, more fundamental than, or derivative of the others—they are understood as the necessary, interdependent aspects of the manifest Kosmos which arise in a four-fold mirroring of each other. AQAL theory recognizes these primary ontological divisions as the basis for the tetra-nature of reality which is represented as the quadrants and as the four primary perspectives on reality. These primary perspectives are found universally in human languages as I, We, and It/Its, or first, second and third person perspectives and are the basis of the three experiential domains found in human cultures: the aesthetic domain (I or self), the normative domain (We or culture), and the singular and plural dimensions of the cognitive domain (It/Its or nature). These domains representing self, culture, and nature represent realms of experience that are intrinsic to all individual sentient holons; in Integral theory they are the fundamental dimensions of experience. The quadrants and the three primary perspectives are related thus:

- Upper-Left quadrant (UL), first person, subjective, self, I-perspective, aesthetic domain
- Lower Left quadrant (LL), second person, intersubjective, culture, We perspective, normative domain
- Upper Right quadrant (UR), third person singular, objective, nature/organism, It perspective, cognitive domain
• Lower Right quadrant (LR), third person plural, interobjective, nature/environment, Its perspective, cognitive domain

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Table 1. The 4 Quadrants.

The quadrants/perspectives, understood the postmodern sense of embodied enaction, are simultaneously four domains of ontological reality, four domains of epistemological knowing, and four domains of methodology or embodied engagement. The quadrants establish a foundation for a synthesis of ontology/being, epistemology/knowing, and methodology/doing-living which are understood to arise together as interdependent aspects of subject/object reality. Because there can be no interior without an exterior, no subject without an object, no singular without a plural, so there can be no being without knowing, no knowing without doing, and no doing without being. The quadrants thus form inseparable both/and relationships between subject/object, individual/collective, being/knowing, being/doing, and knowing/doing.

The quadrants and primary perspectives provide an unprecedented organizational scheme and heuristic tool that systematizes, clarifies, and brings order to many complex areas of knowledge such as the relations between subject and object, mind and nature, science and the humanities, science and religion, individuals and collectives, consciousness and form, facts and norms, culture and nature, organism and environment, being and knowing, brain and mind, and more. Especially when the quadrants and perspectives are understood from the perspective of dialectical rationality or vision logic as radically inseparable and arising together in mutual coexistence, many difficult issues and arguments that have polarized these aspects of human experience and pitted them one against the other, become resolved in an exquisite understanding of mutual necessity and co-existence. The quadrants thus serve as a broad orienting framework for organizing fundamental concepts in human thought and for organizing the various disciplines and fields of study.

The Eight Perspectives, Methodologies, and Zones of IMP

The first two divisions in the Integral Kosmology, interior/exterior and singular/plural, establish the quadrants and the four primary perspectives. A third division, inside and outside, differentiates these four fundamental quadrant-perspectives into inside and outside perspectives.
dividing the original four into eight primary perspectives. An example in the UL would be the perspective of the inside of first-person experience – vs. the perspective of the outside of first-person experience. The eight perspectives of IMP are described by permutations of the original four perspectives as follows (see also figures 2 and 3):

Zone #1 = 1p x 1-p x 1-p x 1p (UL inside – e.g., phenomenology)
Zone #2 = 1p x 3-p x 1-p x 1p (UL outside – e.g., structuralism)
Zone #3 = 1p x 1-p x 1-p-pl x 1p (LL inside – e.g., hermeneutics)
Zone #4 = 1p x 3-p x 1-p-pl x 1p (LL outside – e.g., semiotics)
Zone #5 = 3p x 1-p x 3-p x 3p (UR inside – e.g., cognitive science)
Zone #6 = 3p x 3-p x 3-p x 3p (UR outside – e.g., empiricism)
Zone #7 = 3p x 1-p x 3-p-pl x 3p (LR inside – e.g., social autopoiesis)
Zone #8 = 3p x 3-p x 3-p-pl x 3p (LR outside – e.g., systems theory)

Figure 2. Eight Primordial Perspectives
This “perspective calculus” defines eight primary methodologies that, when enacted or engaged, bring forth the particular phenomena of each zone. The phenomena of each zone are only apprehendable by means of actively engaging one or more of the methodologies from that category. The zone is the phenomenal space brought forth by each methodology and perspective set. Thus we can say that there are eight perspectives that, when engaged by their respective methodologies, give rise to eight phenomenal zones.

The methodologies of IMP represent eight primary perspectives available to sentient beings, eight fundamental modes of enacting or bringing forth phenomenal reality, eight basic categories of subject/object relations. As such, the eight zones of IMP can also identify the essential methodologies inherent in the various human fields and disciplines allowing one to understand the relationships between the phenomenal domains seen by those who engage those disciplines; anthropology (zone #4), neuroscience (zones #5, #6), meditation (zone #1), psychoanalysis (zone #2), cognitive biology (zones #5, #6), law (zones #3, #4), economics (zones #8, #4), biochemistry (zone #6), astronomy (zones #8, #6). Some human fields, approaches, or disciplines utilize one or two methodologies while many other contemporary fields or disciplines employ two, three, even four of the primary methodologies presented here.

It is important to remember that IMP and the AQAL framework are still unique ways of organizing human experience and that most scholars, writers, and researchers in most fields either a) refuse to recognize the validity of methodologies other than their own and/or b) conflate two or more of these methodologies, and/or c) have their own systems of organizing and naming what is represented here as the eight methodologies in ways typical to their discipline, and/or d) are consciously trying to explain away the existence of one or more of the methodologies they disapprove of often by asserting that their particular methodology or field provides the explanatory basis for everything else, an endeavor that is referred to in Integral theory as quadrant or zone absolutism.
Clarifying Methodology

The “methodologies” of IMP refer not merely to consciously learned and applied human activities and practices such as the methodologies of philosophy, neuroscience, meditation, music, and semiotics each which brings forth phenomenal data specific to that practice. More specifically the methodologies refer to the “all doing is knowing, all knowing is doing” meaning put forward by Maturana and Varela regarding the fundamental underlying circularity between action and experience. Methodologies in this sense are innate activities or native injunctions that are intrinsic to the corporeal existence of individual sentient holons, actions which have become embodied in the structure of the organism through the tetra-inheritance of past Kosmic habits. A dog, by virtue of his individual ontogeny and canine phylogeny, naturally has dog-perspectives and enacts dog “methodologies” by nature of his embodiment and behaviors as a dog—communicating with and interpreting other dogs, other beings, and his environment (zone #3 “dog-hermeneutics”), interpreting his own sensations, images, and feelings (zone #1 “dog-phenomenology”), perceiving and relating to the exterior world of dog-objects, bone, bed, stick, car, street (zone #6 “dog empiricism”) and so forth. From the standpoint of the holarchy of being described in Integral theory, the same would be true for any other sentient being of any level of complexity who would engage these same perspectives and native methodologies appropriate to the level of its own quadratic embodiment.

Whether consciously learned or naturally inherited, “the methodologies” should be understood to represent all manner of embodied living, doing, injunction, action, engagement, interaction, and inquiry. Methodology in this sense is equivalent to temporality in the quadrants: entropy, irreversibility, movement, change, process, development, and history. The embodied existence of any level of sentient holon, to the extent that it is embedded in the stream of time—the processes of living and self-organization, from conception to birth through life to death—is, by its very existence and manifestation as four fundamental domains described by the quadrants, enacting or engaging these primary methodologies through the processes of living. The methodologies considered thus are intrinsic aspects of embodied quadratic existence in time.

As we said, at the level of complexity of human holons, the methodologies also encompass the various culturally inherited and learned behaviors that constitute human engagement with the world that have both zone- and level-related components. An example of this in zone #3 would be the difference between classical hermeneutics (St. Augustine) and postmodern hermeneutics (Heidegger); an example in zone #6 would be folk science (alchemy) and rational science (physics and biology).

Considering as we have the fundamental interrelatedness of quadrants, perspectives, methodologies, and zones, let us now turn to a closer look at the exact nature of the phenomena that arises within each zone as it is understood from a survey of human methodologies or modes of inquiry.

Zone Pairs and Phenomenal Domains

It is notable that in Wilber’s original formulation of IMP (2003) he recognized important associations within the eight zones by initially presenting only four zones. There he presented the eight zones as only four (singular/plural) zones whose methodologies each reveal similar phenomenal domains. His original zone pairing is significant in that the perspective calculus reveals the same terms for each pair except that one term in each pair is singular while the other is plural; for example, note that (from above) zone #1 = 1p x 1-p x 1-p x 1p while zone #3 = 1p x 1-p x 1-p x 1-p. The perspective pairs thus considered are identical except for one singular/plural difference. This is not to minimize the huge and important differences between singular and plural perspectives which Wilber brings out in great detail in the Excerpts but rather to
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point out that singularity and plurality do not affect the essential nature of the phenomena enacted by methodologies of the zone pairs.

The important point to pick up on from Wilber’s original formulation is that he was recognizing how the singular/plural methodologies of the zone pairs reveal four fundamentally different phenomenal domains: 1) material reality, 2) consciousness-felt, 3) consciousness-seen, and 4) cognition (“cognition” here referring to biological cognition, not cognition as the UL capacity to take perspectives which is to be explained in more depth below). In order to clarify these four phenomenal domains brought forth by the paired methodologies, they can be abbreviated by the terms, Matter, Qualia, Mind, and Cognition (see figure 4).

![Diagram of Four Quadrants, Eight Zones, Four Phenomenal Domains](image)

Let’s now take a closer look at each of these zone pairs, describing in order of most to least self-evidential, the nature of the phenomena that arises within them when engaged by the methodologies.

**Matter: Zones #6 and #8**

The phenomenal domain brought forth and apprehended by the methodologies of zones #6 and #8 is what Wilber (2006) calls “the world of the terribly obvious” and is none other than the familiar three-dimensional, physical world of Matter, Energy, Space, and Time (MEST or Matter for short). The methodologies of these zones illuminate the outsides of exterior objects and are the only methodologies that bring forth material objective reality: simple location, material-
rial existence, spatial dimensions, material systems, empirical objects, sensorimotor objects, gross reality, the world of nature, energy fields, energy exchanges, physical forces, chemical forces, heat, light, gravity, atoms, molecules, cells, organisms, electromagnetic energy, spatial location, and temporal duration. It is important to point out that the phenomena of the other six zones (1, 2, 3, 4, 5 & 7) do not exist materially, nor do they exist in space and time. The entire matrix of spacet ime and the universe of matter and energy is the domain of zones #6 and #8—from the distant echo of cosmic microwave background radiation and galaxy super-clusters to the complex worlds described by biology, chemistry, and subatomic physics.

In the human domain, the methodologies that enact zones #6 and #8 use third-person it-language to describe material structures, their composition, their dynamics, and their functional behaviors, whether they are individual physical entities such as particle, atom, molecule, cell, and organism or collective physical systems such as galaxy, star system, planetary system, chemical system, ecosystem, social system. All of the phenomena of zones #6 and #8, whether individually or collectively considered, are apprehended in the form of materiality or MEST. Typical zone #6 human methodologies are the empirical sciences: physics, chemistry, biology, physiology, neurology, ecology. Typical zone #8 methodologies focus on the material and objective aspects of collectives and systems such as astronomy, earth sciences, ecology, or economics, sociology, and political science. Zone #8 methodologies are also what Wilber describes as the “rational” systems sciences11 which focus on empirical study of the structure, dynamics, composition, and function of material systems such as dynamical systems and chaos theory, self-organizing systems, and Prigogine’s nonequilibrium dissipative systems.

As noted above, the objective dimensions of material reality and spacetime are brought forth differently in zones #6 and #8 by different levels of sentient embodiment. Due to their different quadratic constitutions, the worldsplaces of materiality and spacetime exist differently for a paramecium, a worm, a dog, and a human; intrinsic features of objective reality that exist in the worldsplaces of higher sentient holons such as dog and horses only subsist in the worldsplaces of lower holons such as worms and paramecia.12 Again it is important to point out that individual holons or sentient beings naturally embody “methodologies” for zones #6 and #8 by virtue of their four-fold existence but also by virtue of their tetra-inheritance13 of the past history of Kosmic habits.

**Qualia: Zones #1 and #3**

IMP describes two primary perspectives on the phenomena of consciousness in the Left Hand quadrants, 1-p inside and 3-p outside. In the Excerpts Wilber describes these as “the feel of a feeling” and “the look of a feeling” respectively. The phenomenal domain brought forth through the methodologies of zones #1 and #3 are the 1p-inside of consciousness, the domain of Qualia, a term used to describe the specific qualitative states of consciousness felt by a first person subject. Consciousness itself is best thought of as the “clearing” in which qualia or first-person forms of consciousness appear and are apprehended. Consciousness itself is not an object however forms or states of consciousness can be felt from the inside phenomenologically as qualia, or seen objectively from the outside as mind (zones #2 and #4 below).

Philosophers of consciousness use the term “qualia” to describe the various qualitative felt-experiences that arise subjectively. Qualia (singular quale) is the name given to the “what-is-it-like” aspect of subjective experience. In the oft-cited article “What is it Like to Be a Bat?” Thomas Nagel14 investigates the specific nature of this aspect of experience for a subject with bat consciousness. The philosopher of mind John Searle describes qualia as synonymous with consciousness: “all conscious phenomena are qualitative, subjective experiences, and hence are qualia. There are not two types of phenomena, consciousness and qualia. There is just conscious-
ness, which is a series of qualitative states.” Daniel Dennett (who also happens to refute the reality of qualia even though he writes about it) elaborates:

“Qualia" is an unfamiliar term for something that could not be more familiar to each of us: *the ways things seem to us*. As is so often the case with philosophical jargon, it is easier to give examples than to give a definition of the term. Look at a glass of milk at sunset; *the way it looks to you*--the particular, personal, subjective visual quality of the glass of milk is the * quale* of your visual experience at the moment. The *way the milk tastes to you* then is another, gustatory *quale*, and *how it sounds to you* as you swallow is an auditory *quale*; these various "properties of conscious experience" are prime examples of *qualia*.

From the standpoint of IMP qualia what is apprehended when taking the perspectives of zones #1 and #3. Depending on the methodology engaged, qualia can be felt or apprehended as either first-person singular phenomena or as first-person plural phenomena. Methodologies that illuminate first-person *I qualia* are phenomenology, meditation, introspection, and visualization. Methodologies that illuminate first-person plural or *We qualia* are any number of dialogical interpretive practices such as hermeneutics, interpretive circles, group inquiry, and various group processes and engagements designed to arrive at mutual understanding. An example of a human zone #3 engagement would be proceedings of the US Supreme Court in the hearing of cases in relation to the interpretation and application of US Constitutional law; for example, how we interpret and understand the meanings of the First Amendment and come to mutual agreement on such interpretations. An example of avian zone #1/#3 engagements would be the interpretations and distinctions birds must make of calls of their own species vs. the calls of other bird species, -vs. all other sounds in the environment.

Methodologies or disciplines that investigate states of consciousness such as altered states, PSI phenomena, peak experiences, induced states such as hypnosis, psychedelics, prayer, severe deprivation, trance states, are also charting the territory of qualia within zones #1 and #3. Thus, although states of consciousness are traditionally studied as zone #1 phenomenology, from the standpoint of Integral theory, states of consciousness also have zone #3 hermeneutic components. The point here is that both the I qualia of zone #1 and the We qualia of zone #3 share the same fundamental phenomenal nature—the qualities of conscious experience. First- and second-person qualia (phenomenological and hermeneutic phenomena) are forms or states of consciousness, direct first-person phenomena apprehended in the methodologies of zones #1 and #3.

It should be noted here that although most research in states of consciousness is reported as experiences had by individual first persons of zone #1 qualia, states of consciousness also have zone #3 components that are rarely if ever considered. States research focuses almost exclusively on individual experiences of zone #1 phenomena—sleep, meditation, hypnosis, identity states, psychedelic states, discreet states, ego states, internal states, peak states, etc. Since the quadrants are understood to tetra-arise, tetra-evolve, and tetra-mesh, the zone-#1 and zone-#3 aspects of states of consciousness co-arise within the AQAL matrix as the individual and collective aspects of states of consciousness. Just as there is no I apart from a We, there is no zone #1 state experience apart from the zone #3 state experience. States of consciousness have a cultural zone #3 component by virtue of the relationship between individual and collective consciousness. Examples of the zone #3 hermeneutic component of states would be: 1) the experience of love and joy through the cultural background of being Tibetan —vs. the cultural background of being Brazilian; 2) the mutual experience of joy shared by American jazz musicians —vs. the mutual experience of joy shared by German soccer fans; 3) the experience of hatred felt by radical Islamists —vs. the experience of hatred felt by sensitive multiculturalists. The point is that all
first person zone #1 qualia are deeply embedded in second person zone #3 qualia; all first person states have second person components; phenomenology and hermeneutics co-exist and co-arise.

Matter and qualia represent two of four phenomenal domains of experience within the zone pairs of Integral Methodological Pluralism, namely one form of exterior phenomena and one form of interior phenomena.

Mind: Zones #2 and #4

A third zone pair reveals yet another phenomenal domain. This is the objective perspective on consciousness and interiority, the 3p-outside view of interior qualia, the perspective of Mind. If qualia are consciousness states directly felt, mind is qualia-seen. As Wilber states, mind is “the look of a feeling,” the structures of experience, forms of consciousness seen from the outside. Mind is qualia tracked, described, objectified, measured, and mapped. Methodologies that enact zones #2 and #4 are characterized by third person descriptions of interior qualia. First-person qualia felt by the subject can be followed over periods of time, noting recurring patterns, and then such patterns can be described in third-person terms: levels, lines, states, types; interpersonal, psychosexual, ego-identity, affective, cognitive; self-system, motivation, volition, value structures, morals, judgment, defenses, personality types and traits. As Wilber points out in the Excerpts, the structuralist approaches of zones #2 and #4 are the result of following the qualia of zones #1 and #3 over time and across populations—structuralism is phenomenology plus history. These terms of mind describe the outside contours and structures of inside qualia or felt-experience and are two sides of the same consciousness coin seen from different perspectives. Qualia and mind are two distinct types of interior phenomena brought forth by distinctly different methodologies and active engagements. Qualia can only be felt or experienced directly by first persons; but when qualia is objectified, described, named, mapped, or otherwise assigned a linguistic signifier, it is mind.

Although the word “mind” is most associated with individual minds, as a particular type of phenomena we use it here also to refer to collective mind, LL-culture, as seen from the outside—or as Wilber terms it, “the look of a We.” The culture or intersubjective space of the LL quadrant can be a) felt from the inside as collective qualia, or b) seen from the outside as “cultural mind” or “collective mind.” Like individual mind of zone #2, collective mind of zone #4 uses third-person terms to describe (in this case) the outside structures of interior culture: collective structures of meaning such as political, legal, ethical, religious, normative, and scientific discourses; kinship and linguistic structures, and cultural practices, customs, and habits. The methodologies of zones #2 and #4 include structuralism, developmental psychology, Foucauldian archeology, developmental genealogy, semiology and semiotics, cultural anthropology, and post-structuralism.

To review: Qualia is what is apprehended directly by the subject as qualitative experiences or first-person states of consciousness, the “what is it like” experience, Wilber’s “the feel of a feeling.” This direct, first-person aspect of Qualia is indicated in the integral calculus by all terms being first-person terms: 1 x 1 x 1 x 1. Mind is what is apprehended or seen when we objectify, name, map, or describe qualia and systematically follow these experiences to derive patterns and structures through various methodologies such as philosophical representation, structuralism, and cultural anthropology. These derived patterns and structures are Mind. This view of first-person qualia-as-objects is indicated in the integral calculus by the one 3-p term among 1-p terms: 1 x 3 x 1 x 1. Matter and energy in spacetime—the physical world—is what are apprehended when empirical objective methodologies are engaged. The objective third-person nature of this perspective is indicated in the integral calculus as all 3-p terms: 3 x 3 x 3 x 3. Qualia and Mind are two fundamental perspectives of LH consciousness or interiority while Matter is
one way of viewing exterior or objective forms. However, there is at least one more primary way of viewing exteriors.

Cognition: Zones #5 and #7

If with the other zones we have introduced a) objective material reality and consciousness from both inside as b) qualia and outside as c) mind, what is left? We have already identified the realms of mind and nature, culture and nature, and self and nature. What aspects or phenomena of human experience have we not yet identified? What is left is the elusive “inside of exteriors,” the unique phenomenal domain brought forth by the perspectives of zone-#5 and zone-#7 methodologies that itself is not qualia, not mind, and not matter.

The methodologies and phenomena of this fourth zone pair are the least clearly articulated in the Excerpts and are the least obvious and the most difficult to conceptualize. Excerpt E, which has yet to be released, is to be Wilber’s in-depth treatment of the four Right Hand zones #5, #6, #7, and #8.20 He does however give a beginning treatment of zones #5 and #7 in Excerpt C of The Excerpts in the context of systems theory.

In Excerpt C Wilber defines zones #5 and #7 as the inside views of exterior organisms and exterior systems using the terms “autopoiesis” and “social autopoiesis” to identify the primary methodologies of these two zones. In order to isolate and explain the nature of these zones, Wilber identifies two kinds of systems theory: the systems-rational-outside view (zone #8), and the autopoiesis-cognitive-inside view (zones #5 and #7). Borrowing from the work of Kenneth Bausch21 he explains that the systems-rational view takes the large view from the outside of the system, describing its material organizational structure and dynamics. One might use this systems perspective to describe for example a natural system such as an alpine ecosystem or social system such as a feudal economy. In contrast the autopoiesis-cognitive view uses its own systems approach but instead takes into account first-person singular and plural (I or We) views of the organism or society in the overall description of their biological and social structures. In the phrase for zones #5 and #7 “the inside of the exterior,” it is the term “inside” that indicates the first-person concern of the autopoietic approach. In the integral calculus, this first-person concern is indicated in the use of a 1-p term: 3 x 1 x 3 x 3. Wilber points out however that the first-person perspectives of organism and society that the autopoiesis-cognitive approach considers are not zone-#1 qualia or zone-#3 qualia but their exterior equivalents in exterior systems described as “cognition”—the insides of biological systems and social systems.22 This approach with respect to zone-#5 methodologies is commonly named cognitive biology or biological phenomenology.

This zone-#5 cognition is not to be confused with the zone-#2 Piagetian meaning of cognition as the cognitive intelligence of the UL. Piagetian cognition is a zone-#2 description of the degree of perspective-taking capacity, the kinds of objects a subject can be aware of, the level of cognitive complexity of an individual psyche, and a measure of psychodynamic capacity in the interior of the organism. Piagetian cognition follows structures of consciousness of the subject as she performs cognitive tasks. Zone #5 cognition is the perspective of the objective organism’s own self-regulating, self-adapting, self-organizing, self-maintaining processes. It is the term “self” in these words that points to the “first person” reflexive concern of zone #5 methodologies.

To clarify further: first-person qualia can be seen from the outside as zone-#2 structures of consciousness. This view objectifies the phenomena of qualia taking a third person view of first person experience but itself is still a view of interior consciousness. First person qualia however also have direct exterior zone-#5 correlates which are seen and described as cognitive structures of the organism. Just as there are levels of qualia—sensations, feelings, images, concepts, intuitions, satoris—there are corresponding levels of cognitive structures enacted by the
particular structures of the physical body, from the level of cells to the level or organ systems. Cognition of the organism in this sense is not “I” phenomena, not qualia, but qualia in its exterior it-form, expressed in the it-language of cognition. You describe the organism’s first-person view but using the third-person terms of biological cognition. Cognition in turn has direct correlates as zone-6 material phenomena in the brain and physical structure of the organism. The cell’s material parts, from the level of atoms and molecules to the level of the organelles, are the material structures of zone #6. The processes of self-regulation, self-organization, self-adaptation, and self-making (auto = self, poiesis = making) that constitute the agentic concern of the cell’s survival in the world are the phenomena seen with a zone #5 perspective.

A meditator, for example, when hooked up to brain measuring equipment will have a zone-#1 experience of meditative qualia or meditative state experiences which she will describe in first-person terms. Her description of her experience can be analyzed and mapped using a zone-#2 structural analysis producing a third person mind map of the first person qualia territory. Activity within the brain and body during the meditation session can also be recorded by the equipment producing various zone-#6 quantitative empirical data—delta and theta waves, periodicity, breathing patterns, body temperature, blood oxygen levels, activity in various brain modules, serotonin levels, etc. The same physical activity within the brain, nervous system, and body of the meditator that is seen empirically as various wave types can be also viewed from a zone #5 inside perspective as the cognitive processes within the brain, neural system, and body that enact the doing/knowing of the meditator.

The methodologies of zone #5 describe the first-person perspective of the interior of an organism using objective third-person terms of cognition… not the inside of an I but the inside of an it. As Wilber points out, autopoietic descriptions do not contain I-language, the language of qualia, but rather the it-language of cognition. It is the difference between the phenomenological qualia of an I-space (zone #1) and its direct correlate in the cognitive “software” of the brain/organism (zone #5). In the case of the methodologies of zone #7, it is the difference between the hermeneutic qualia of a We-space (zone #3) and its direct correlate in the communicative constitution of a social system. Because of the dominant monad aspect of individual holons, the term cognition most closely describes the phenomena in zone #5. Because of the regnant nexus aspect of social holons, the term communication is more appropriate to describe the phenomena of zone #7. Communication is what is constituted by virtue of the exchange of signs between dominant monads, between members of collective holons using their communication tools. Cognition is the information exchange, the signs, between constituent parts of individual holons. In each case the methodologies of these zones bring forth the view of the organism or social system that sees cognition or self-regulation as a function of physical embodiment or structure. Ladislav Kovak, a cognitive biologist, explains “the knowledge is embodied in constructions of organisms, and the structural complexity of those constructions which carry embodied knowledge corresponds to their epistemic complexity.”

It is still difficult to define exactly the nature of zone-#5 and -#7 phenomena. Nonetheless, zones #5 and #7 methodologies enact or bring forth a specific fourth domain of phenomena that is implicit in the language of cognitive biology, cognitive neuroscience, autopoietic systems theory, biological phenomenology, and the autopoiesis of social systems, a domain that is best understood as information, biological information.

The point is that there is a distinct realm of phenomena apprehended by the methodologies of zones #5 and #7 that is not consciousness, mind, or qualia, nor is it the material reality of zones #6 and #8. Zones #5 and #7, although they take into consideration first-person perspectives, are still RH-monological, still deal with exterior it-cognition, it-information, and it-
communication, and look at the specific information structures that make up the subjective-cognitive world of the organism and the communicative world of the social system.

**Software and Hardware: Zones #5 and #6**

Is zone #5 cognition equivalent to biological software? The linear symbolic computation of computer programs and microprocessors is not biological cognition; that is, computer software is not biological software. However computer systems offer an instructive metaphor for understanding both the nature of zone #5 and the differences between zones #5 and #6 because, in some important ways, computer software is to computer hardware what biological cognition is to living organisms. Zone #5 is akin to software while zone #6 to hardware although the relation between the two is completely different. On the one hand, computer artifacts are designed and made by outside agents and do not (as yet) possess a dominant monad or self-determined agency, and on the other, sentient holons which do possess a dominant monad, have arisen through natural processes and are agents self-made from “the inside.”

To start with the analogy of a computer: a zone-#6 perspective of hardware begins with the electrons themselves that get gated around at the speed of light through impregnated silicon atoms which constitute the billions of semiconductors in the microprocessor and memory chips. These electron packets are then (rather precisely) bounced around through the other components of the motherboard, the sound card, power supply, hard drive, keyboard, mouse, monitor, and finally streamed out through the physical or wireless connection of your router and modem to your internet service provider’s servers—all exterior hardware, physical objects, events, and pathways, zone #6.

Looking at the computer from the perspective of zone #5, one sees the software of the computer. Software is informational and symbolic, not material and does not exist in spacetime—it is not electron packets, potentials, chips, or connections between chips but rather *elaborate multi-layered programmed patterns of binary one and zero states*, patterns which encode billions of instructions per second of information that tell the computer for example to display a sequence of letters at [this place] on the screen of your computer. The software of zone #5 are the information patterns and coding of the computer’s programs, the various levels of symbolic programming language that make up the operating system, the application environment, and the data manipulated within them. Where does all this software information exist? On paper? As symbols on a programmer’s monitor? As instructions in the memory of the programmer? As patterns of binary states within the memory of the computer? As information, *software has no location in space and time* but exists as it-instructions, it-patterns, it-symbols, and it-signs in the workspace of its designers. Since it is designed from the outside rather than self-generated from the inside, since it is an artifact rather than a holon, the computer and its software have no dominant monad, no interiority, no self-determined agentic capacity, and no zone-#1 correlates as qualia.

Comparing now to a biological organism, a zone-#6 perspective sees the “biological hardware” which comprises all material levels of the organism’s organic- and bio-chemistry, cellular structure, anatomy and physiology. The organism is a self-reproducing, self-maintaining, self-organizing, self-regenerating, self-contained autopoietic unity defined partly in terms of its structural coupling with its environment, a manifestation of the entire phylogenetic history of the species and the evolution of life expressed in the particular ontogenetic constitution and development of the individual organism. All material systems of the organism, from cellular systems and processes to organ-system level processes such as the immune and digestive systems are all exterior zone-6 “hardware.”

To understand the zone-#5 perspective of the organism, consider now this entire autopoietic-biological system of hardware from the inside first-person perspective of the organism itself
as self-organizes, self-regulates, reproduces, maintains, survives, stays alive, makes selections, adaptations, and responds to the environment. The biological “software” it is “running,” this cognition, is not designed and given from the outside like the computer; it is not the information-about that we use as observers to describe the organism but the information-for the organism uses as it negotiates its own self-existence.

Summary of Part One

So far we’ve looked at the framework of Integral Methodological Pluralism in the constitution of the quadrants and in the Eight Primary Perspectives of IMP. In looking at the phenomena that is enacted and brought forth by the various perspectives, I have pointed out Wilber’s original recognition that the singularity and plurality (represented as the upper and lower quadrants) do not affect the nature of the phenomena of the zone pairs, #1/#3, #2/#4, #5/#7, and #6/#8. We noted that the methodologies of IMP can be seen as embodied action in both the realm of the noosphere and the realm of the bio-physiosphere. That is, the four types of phenomena of the zone pairs arise as much due to physical embodiment as to psychological embodiment and that overall, this embodied aspect at all levels is what is meant as “methodologies.”

We then went on to identify and clarify each type of phenomena brought forth in the zone pairs: matter, qualia, mind, and cognition. Finally, I suggested that cognition is akin to biological software and made a metaphorical comparison between computers and organisms.

In part two we take a short tour of each of the zones in order to get a better feel for the nature of each zone and give examples in each of the zones.
Reflections on Integral Methodological Pluralism: Part Two, a Tour of the Eight Zones

In part one we looked at the quadrants and their primary perspectives followed by their extension in the eight methodologies, perspectives, and zones of Integral Methodological Pluralism. In looking at the quadrants in Integral Theory, we noted the mutual arising of not only the four dimensions of the quadrants, interiority, exteriority, singularity, and plurality, but also the interdependent and co-existent nature of ontology and being, epistemology and knowing, and methodology and doing. We noted that “methodologies” are not merely human injunctions or paradigms but arise most fundamentally as natural quadratic embodiment in the stream of time relating to all sentient holons. We then examined four specific types of phenomena that arise within the zone pairs—matter, qualia, mind, and cognition—noting the characteristics and qualities of each type of phenomena.

In part two of our reflections on Ken Wilber’s Integral Methodological Pluralism, we will walk through the zones one by one and take a more careful look at the phenomena of each zone by exploring some examples in each zone and clarifying the nature of the phenomena apprehended by each methodology. In keeping with the phenomenal similarities of the zone pairs, I will present examples of each as follows:

Qualia
- Zone 1: the Inside of an “I”
- Zone 3: the Inside of a “We”

Mind
- Zone 2: the Outside of an “I”
- Zone 4: the Outside of a “We”

Matter
- Zone 6: the Outside of an “It”
- Zone 8: the Outside of an “Its”

Cognition
- Zone 5: the Inside of an “It”
- Zone 7: the Inside of an “Its”

To get us started, here is a quick example using all eight zones.

A Brief Tour of the Zones

What do you feel when you are angry? …Zone-#1 qualia. What are the structures your psyche and shadow that help explain the source of that anger? …Zone-#2 mind. What are the cognitive information structures and self-adaptive processes in your brain/body when you express your anger? …Zone-#5 biological cognition. What physical events, neuro-chemical triggers, and sensori-motor tensions occur in your body and brain as you express your anger? …Zone-#6 material individual. What is your feeling of the background cultural matrix of meanings, shared values and understandings, the deeply held cultural messages, sources, or triggers of your anger? …Zone-#3 qualia. How would the feeling of that cultural hermeneutic landscape of meanings and values be objectified, described, measured, and mapped? …Zone-#4 cultural structures. What are the many pathways of communication, exchange of signs and information that exist within the collective you are part of which allow this anger to be triggered? …Zone-#7 communication. What material environment and surroundings are you embedded in and how are they affecting your anger, such as a hot stuffy room watching TV, an spacious auditorium filled with righteous fundamentalists, a quiet mountain cabin listening to the radio? …Zone-#8 material system.
Zone #1 Qualia – The Inside of an “I”

We begin our tour of the zones with the zone that is most familiar, the inside of an “I.” Within zone #1 is I-quality, “the feel of an ‘I’”; it is the hori-zone of any and all direct first-person subjective experiences that you as an individual can witness. Zone #1 is the experience-stream of conscious states—bodily sensations, feelings and emotions, gut reactions, thoughts, ideas, images, concepts, wonder, fear, desire, aversion, insights, intuitions, inspirations, raptures, and satori—as any form of consciousness that arises in the first person. Zone #1 is also the personal and collective unconscious. While asleep, within zone #1 arise the feelings, images, thoughts, and insights of your dreams, and while in deep dreamless sleep, lies your experience of the Witness. Within zone #1 of course arise not just natural states and phenomenal states but any and all kinds of altered states such as a drug-induced, peak, hypnotic, shamanic, out-of-body states. But these describe zone #1 mostly from the perspective of human sentience.

It is important to remember that in Integral AQAL Theory, zone #1 “goes all the way down” in Wilber’s phrase. That is, zone #1 is enacted naturally by all individual sentient beings by nature of their self-existence and individual interiority. Thus chimps, dogs, snakes, ants, and paramecia have their own zone #1 first-person awareness appropriate to their level of organizational development and material embodiment. This “natural enactment” means that individual sentient holons do not have to “take” a first person zone #1 perspective but, by virtue of their ontological existence, naturally and necessarily exist within a first person zone #1 phenomenological dimension. The ant naturally has and acts within a… well, first ant-space or ant-subjectivity and sentience. The horse, also unable to take a second or third horse perspective, naturally lives out of a first horse perspective of horse appropriate phenomenology. The first “person” phenomenological space for any level of sentient being is determined and brought forth by the specific factors in all four quadrants, UR material embodiment, LR material environment, and LL intersubjective embeddedness, and UL subjective structures.

Because of their unique ability to take perspectives other than first person, humans have developed systematized methodologies or practices for self-reflexively exploring and charting the interior spaces of zone #1 such as phenomenology, meditation, introspection, reflective inquiry, and other methods that explore first-person felt-experience. One of the main concerns of zone #1 is the study of states of consciousness. Zone #1 phenomenal experience is a series of transient states that pass in time through awareness. The main qualities of states of consciousness are that they are directly experienced, transient in time, do not show development, and are exclusive of other states (i.e., you can’t be both confused and clear at the same time). States research has identified a number of important categories of states which Wilber identifies as natural, phenomenal, and two forms of altered states: exogenous, and endogenous. Natural states are the three great states of waking, dreaming, and sleeping. Phenomenal states, which can be thought of as subdivisions of waking and dreaming, include meso-states such as joy-sadness, concentration-dreaminess, doubt-certainty, confusion-plainly, fatigued-energized, sober-drunken, stressed-relaxed, shame, anger, fantasy, flow, or whatever describes one’s immediate felt experience in 1st-person terms. Within each of these meso-states there can be micro-states of even finer qualities. Exogenous altered states are those that are induced by outside influences such as psychoactive substances, hypnosis, and various mind-altering technologies. Endogenous altered states are those that are trained or brought on through various practices such as meditation, visualizations, phenomenological inquiry, performance enhancement practices, as well as spontaneous altered states such as peak experiences.

Some Examples of zone #1 include 1) the state of your awareness right now; the feeling of eating ice cream, the felt-sensations of sweet, cold, creamy on your tongue, throat, stomach, your felt-emotions, pleasures, memory-associations, etc.; 2) the experience of peace, serenity,
calm felt while watching a beautiful sunset or viewing the night stars; 3) first-person experience of bodily sensations and emotional states felt in the body and bodymind when you’re in conflict with a loved one; 4) your first-person experience of abstract thoughts, concepts, ideas, images, in your mind or mind’s eye; 5) your first-person experience of intuitions, hunches, gut feelings, insights, illuminations, deep unspoken knowingness, spiritual inspiration, or existential dread; and 6) the sensations, emotions, images, inspirations, and insights of your dream states.

**Zone #3 Qualia – The Inside of a “We”**

When we feel inside to the ways in which we intersect with others, we are feeling into zone #3. Zone #3 is we-qualia, “the feel of a ‘We’”; it is direct felt-experience of second-person, intersubjective we-consciousness; it is the feeling of mutual understanding; it is the immediate feeling of solidarity and communion with others. Zone-#3 phenomena are the multiple ways in which you feel yourself as part of hermeneutic circles, that is, groups that share some kind of mutually shared meanings, understandings, felt-experiences. As an example of the specificity of collective understanding consider the select group of people who, by way of sheer bad luck, share having been hit by lightning. Consider the circle of Harley Davidson riders, and within that, the many sub-circles of Harley riders, each circle which shares the experience of being bikers. We spaces are as large as the circle of all Russian speakers, English speakers, and within that, the many forms of English speaking circles. Those are yet within the larger circles of being human and being sentient. Every I-space of I-qualia is made up of its own unique collection of we-spaces with we-qualia, spaces of shared understanding and shared experience from one’s family circle to the circles of one’s race, religion, gender, nation, linguistic community, and sexual orientation. Many of these circles are consciously owned and identified with, but the majority one’s cultural circles operate in the intersubjective background as multiple levels of meaning making contexts, unbeknownst to the subject’s conscious awareness.

Any form of mutual understanding or we-space that is shared by sentient beings arises as zone-#3 phenomena. Cats, dogs, horses, mice, bats, insects, birds, fish, as well as, yes, plants share some kind of mutually shared interpretive zone #3 space. A frog has to interpret the sounds and proximity of other frogs as well as other beings in his environment and distinguish predator from prey, friend from foe, food from not-food, refuge from exposure, interested male from disinterested male, and process all kinds of frog-appropriate understanding.

Human enaction methodologies in zone #3 are hermeneutics, interpretive circles, solidarity circles, collaborative inquiry; methodologies that focus on establishing mutually-shared interpretations of language, cultural meanings, texts of all kinds, interpretations of law, scriptures, etc. Other sentient beings enact their own level and species appropriate hermeneutic and solidarity according to their specific embodiment and cultural embeddedness. Phenomena apprehended in zone #3 are: solidarity felt, shared experience, similar signification; what your culture feels like, immediate felt-experience of mutually-shared meanings, cultural knowledge, mutually shared interpretations.

Some examples of zone #3 include: 1) the feeling of understanding your culture’s concern about global warming and the solidarity you feel with those who care; 2) the distain you feel with others for dishonest politicians; 3) feelings you have surrounding issues of justice, equality, morality, and ethics and sharing those thoughts and feelings with others who feel similarly; 4) the understandings and meanings you share with people from a culture and language foreign to yours when you speak their language; 5) what it means to you and feels like in your social group memberships such as being an American, being a father, being an employee, being gay, being a teacher, being Christian, being a southerner, being a New Yorker, being a homeowner, being a poet or artist, or any other role that you share with others.
Zone #2 Mind—The Outside of an “I”

What does your own subjective awareness look like as an object? What is “the look of an I”? What does a feeling look like? Zone #2 is individual mind, this view of individual subjectivity as an object, a perspective you can take on yourself or on another person. It is interior zone-1 qualia seen from the outside and described in it-terms, as objective structures. Zone #2 represents all the structures of an individual’s first-person subject: self-system structures, developmental line structures, type structures, level structures, state structures, etc. Zone #2 is subjective consciousness seen.

Enaction methodologies of zone #2 include structuralism, poststructuralism, neosymbolism, deconstruction, developmental psychology, psychoanalysis; linguistics, semantics, syntax, morphology, pragmatics, semiology, and semiotics. Phenomena apprehended in zone #2 are first-person consciousness as object, the structures of experience; structures of interior consciousness, developmental levels, self-identity structures, self-system structures, moral decision making, value judgment structures; interpersonal, affective, linguistic, and kinesthetic structures.

Examples of zone #2: 1) what your friend’s psychograph looks like—his level and line profile; 2) the psychological map a therapist tries to put together as she listens to your descriptions of your inner feelings and thoughts in order for her to see the structures, divisions, conflicts, blind spots, associations, dissociations, within your mind; 3) the results of psychometric tests such as Meyers-Briggs Types, Cook-Greuter’s Leadership Development Profile, Loevinger’s Sentence Completion Test, the Intercultural Development Inventory of Bennett and Hammer, and hundreds of other psychometric tools.

Zone #4 Mind—The Outside of a “We”

When we view mutual understanding from the outside, when we look at the mutually shared circles of understanding and meaning of zone #3, when we try to understand the structures of such circles of we-understanding, how those circles intersect, influence each other, conflict, and build into larger and larger circles—when we map culture from the outside, we are working in zone #4. Zone #4 sees We-qualia from the outside as collective mind; it is “the look of a We.” Zone #4 is the view of culture and intersubjectivity from the outside. Zone #4 is what cultural anthropologists study when they try to understand how a culture functions, how its practices, beliefs, language, values, morals, social institutions, and history contribute to the experiential lifeworld of its members.

Enaction methodologies of zone #4 include cultural anthropology, structural anthropology, semiotics, linguistics, literary criticism and theory, post-structuralism, deconstruction, Foucauldian archeology, developmental genealogy, semiology/semiotics, grammatology—methodologies that try to get at the structures of culture, language, and shared meanings and interpretations as described in objective terms. Phenomena apprehended in zone #4 are literary structures, language structures, belief structures; the roles of ethics, values, morals, concepts, rituals, laws, rules, social roles, and conventions in the organization and functioning of the culture and its members; any objective representation or mapping of the interior lifeworld of the culture and its zone-#3 territory. As zone #2 is the mapping of zone-1 I-space territory, zone #4 is the mapping of zone-#3 We-space territory. Zone #4 mapping can be done both as emics—interpretations of the culture from the perspective of the members of the culture—or, the mapping/description can be done as etics, interpretations of the culture from the perspective of an outside observer/researcher. Emic-based description is taking a zone-#4 perspective on your own zone-#3 we-space, while etic-based description is taking a zone-#4 perspective on different culture’s zone-#3 we-space (similar to the difference in taking zone-#2 perspectives of your own zone-#1 experience and another’s zone-#1 experience).
Examples of zone #4 include: 1) the description of why a culture cares about global warming, how caring about global warming affect and change the culture; 2) a map of a culture’s belief systems and descriptions of how its social institutions and practices create such belief systems; 3) descriptions of how a culture’s literature and literary tradition contribute to the culture’s overall view of itself in the world and itself in relation to other cultures; 4) describing how the various forms of art, ritual, myth, sport, craft, and warfare function in the culture.

Zone #6 Matter – The Outside of Organism

Zone #6 is the world of gross material objects, the world of empirical science. What do you see when you look around you? You don’t see thoughts, images, feelings, values, meanings, justice, or integrity. You see sensorimotor objects, physical things, chair, table, book with ink figures on paper; cup, lamp, tree, cloud, and mosquito. The material objects that surround you is the world enacted by the methodologies of zone #6: individual material bodies, objects, organisms, material artifacts. Zone #6 represents the hori-zone of any and all material objects regardless of physical size or weight (neutrino or galaxy), regardless of temporal duration (photon or star), regardless of location (a dopamine molecule inside your brain or a globular star cluster in the Milky Way galaxy). Experience arises most obviously around us as the material reality of zone #6.

The phrase “the outside of the organism” can be a bit ambiguous leading one to think that zone #6 only treats the physical outsides of material objects—a frog has this shape and is composed of these bones, these organs, these tissues, these cells, etc. But within a zone-#6 perspective is any and all material structures that constitute the frog inside and out, from the very smallest, particles and atoms, to the largest, bones, tissues, organs. Any material aspect of the frog from the DNA molecules that make up each cell of its body to the tissues that compose the various organ systems are within the hori-zone of zone #6.

Human zone #6 methodologies include: empiricism; physics, astronomy, earth sciences, chemistry, biology, physiology, anatomy, neurology, biochemistry, molecular biology, astrophysics, etc. any scientific paradigm that is looking at forms of matter and energy in a spacetime continuum. Phenomena apprehended in zone #6: Matter-Energy and Space-Time; simple location, material existence, atomic structure and the elements, molecules, cells, organisms, material systems, sensorimotor reality, gross material nature, and exterior-its.

With regard to the material phenomena of zone #6, we especially want to bring forward the great advances of postmodern constructivism and avoid the myth of the given. Here it is vital to stress that there is not a pregiven material world that is apprehended equally by sentient beings. As Wilber stresses in his Integral Postmetaphysics (2006, Appendix II), what exactly is apprehended in zone #6 (as well as all zones) depends on what he terms a sentient being’s Kosmic address, a “worldview location” that specifies what arises in the experience of a sentient being based two fundamental aspects within the AQAL matrix: altitude and perspective. Altitude refers to the level of developmental complexity of the sentient being while perspective refers to the particular perspective within the quadrants or zones it is taking. Thus material phenomena in the perspective of zone #6 arise according to a being’s developmental altitude—material reality to a worm, a fish, a dog, a magenta-altitude human and a turquoise-altitude human will differ significantly due to their different levels of organizational complexity, embodiment, and enactment. Intrinsic features of Kosmos are themselves not pregiven but are in part, interpretive and con-structed.

With this postmodern, postmetaphysical framework in mind, examples of zone #6 from a human orange-altitude include 1) the description of the material structure of a cedar tree; 2) the material composition, structure, and function of a white blood cell; 3) comparison of the anato-
my, physiology and behavior of African—vs. Indian elephants; 4) description of the structure of a protein molecule and its component parts. Examples of zone #6 phenomena from other developmental altitudes include: 5) a dog’s view of his exterior objective material world constructed by a dog-brain, seen through dog-eyes, heard through dog-ears, and smelled through a dog-nose. The zone-#6 perspective to my dog is his view of material it-objects as he constructs those objects from his embodiment AS a dog—food, water, tree, human, alpha dog, female dog, stick, ball, etc. My dog’s zone-#6 world of it-objects contains the same constraints as it-objects in my world—e.g., the hardness of a stick, the wetness of water, etc.—but what he sees as objects are phenomenally different than what I see as objects due to our differing AQAL-matrix constitutions, specifically developmental altitude. In zone #6 for my dog there is what we know as light, electro-magnetic waves, rain, wind, rocks, trees, food, other sentient beings, but he senses and constructs these objects from the embodiment space of his dog embodiment and worldview. 

Matter is not entirely matter: at the very least, matter is also a matter of altitude and perspective, it is partly a construction, partly intrinsic reality.

Zone #8 Matter – The Outside of System/Environment

If zone #6 is the domain of physical objects, zone #8 is the same domain but considered as collectives of physical objects. If zone #6 is the trees, zone #8 is the forest. Both zones employ empirical methods, both look at matter, energy, space and time, but differ fundamentally in how they approach the material world. This difference has its roots in the age-old philosophical debate between atomists and holists, the dualistic debate as to whether the world is fundamentally unified differences or differentiated wholeness. It is not that zones #6 and #8 represent different ideological camps or philosophical orientations to the reality, rather both zones are intrinsic aspects of experience in the same way that singular and plural, individuals and collectives, one and many are intrinsic and necessary aspects of material reality.

During the past 150 years, the differences between zones #6 and #8 are represented in the modern debate between physics and biology or more accurately, between modern science and postmodern science. It is the grand debate between a) Enlightenment modernists in physics and biology who continue to maintain classical views of determinism, reversibility, reductionism, and materialism, and b) postmodern revisionists who are offering an alternative to the traditional scientific worldview based on irreversibility, uncertainty, evolution, emergence, embodiment, contextualism, constructivism, and plurality. The phenomena of Zone #8 represent the perspectives of postmodern scientists such as mathematical biologist Robert Rosen and physical chemist Ilya Prigogine. For Prigogine it is an attempt to fundamentally revise the laws of physics to accommodate the arrow of time, irreversibility, entropy, self-organization, emergent properties, and finally clear the air of the idealizations of classical modernist science (which includes quantum physics). For Rosen it is the attempt to once and for all put the nail on the coffin of reductionism and the idea that the laws of physics are sufficient for explaining biological phenomena, and to assert the fundamental role of complexity.

Whereas a zone #6 perspective focuses on individual entities or atoms, the zone #8 perspective sees entire systems as entities of their own worthy of attention and study. Zone #8 perspectives intuit fundamental properties of systems that are not reducible to or present in constituent parts. Although this recognition is as old as the ancient Greeks, the modern scientific inquiry into the nature of “systems” arose in various ways in the 1940s with 1) Bertalanffy’s General System Theory, 2) the Cybernetics of Wiener, McCulloch, and Ashby, 3) the structuralism of DeSaussure, Piaget, and Levi-Strauss, and 4) the functionalist approach to social theory of Talcott Parsons. Although these and other systems sciences arose for many complex reasons, there was a growing realization at that time that purely reductionist approaches were unable to
address not only important technical problems but also significant aspects of natural organization.  

The basic idea of zone #8 is simple: the whole is more than the sum of parts. It doesn’t mean the parts don’t exist or are non-entities. Bertalanffy explains this by pointing out that in any collective or system there are constitutive characteristics that are not explainable from the characteristics of isolated parts. The constitutive characteristics of living systems, such as metabolism, cannot be found in the parts of living systems – at some point of complexity of organization, new properties emerge from the specific constitutive relationships that were not present in the parts.

The concept of emergence is an essential theme in the many forms of zone #8 inquiry. In addition to the four research areas listed above, the newer wave of systems theory which occurred in the late 1960s and 1970s include 5) the studies of emergence in systems far from equilibrium, known as “dissipative structures” of Ilya Prigogine, Gregoire Nicolis, Isabelle Stengers, Erich Jantsch, Manfred Eigen, Conrad Waddington, and Hermann Haken, 6) the ecological systems theory of Howard Odum, 7) the catastrophe theory of Rene Thom and the recursive mathematical formulations Benoit Mandelbrot in fractal geometry, 8) dynamical systems theory, self-organization, chaos theory, and 9) studies of emergence in massively parallel networks in cognitive science.

Zone #8 sees interconnected and interacting systems of objects—it sees systems of physical objects, systems behaviors, collective structures, emergent properties, and group dynamics. If zone #4 considers the interior meanings, values, and motivations for groups, collectives, and systems, zone #8 looks instead at the exterior structure and function of groups, collectives, and systems. Zone #4 asks “what shared meanings and values drive the behaviors of this group or collective?” Zone #8 asks “what feedback mechanisms, energy sources, material structures, connection points, and dynamic processes drive the behaviors of this collective?”

What are some examples of zone #8 systems? Examples of exterior material systems include a) physical-chemical systems of interacting physical, mineral, and chemical substances such as astronomical systems, planetary and galactic systems, geological systems and planetary dynamics, fluid systems such as the atmosphere and the oceans as well as other small-scale chemical systems, b) natural eco-systems such as boreal forest, a riparian wetland, and coral reef as well as intra-organismic systems such as cellular systems, immune, nervous, skeletal systems; c) social systems such as human legal, political, economic, education, or healthcare systems and their associated institutional infrastructures within human societies as well as social systems of group behavior within animal societies and collectives; d) technological systems and infrastructures such as information systems, communication systems, transportation systems, and mechanical systems.

Examples of zone #8 include: 1) the description of the material structure of a coral reef, its organisms, its developmental history, its food chains, chemical cycling, the role of ocean water saline levels, temperature, micro-organisms, coupling with the atmosphere, current structures, etc.; 2) the total material structure of an urban center, its material buildings and structures, transportation structures, bridges, roads, walkways, overpasses, rail systems, air transportation structures, businesses, governmental buildings, private homes, the total infrastructure systems of communication and transportation, plus its embeddedness in the natural systems and environment of climate, water systems, and food systems; 3) the

Zone #5 Cognition – The Inside of Organism

Let’s start with what zone #5 is not. Zone #5 is not the physical inside of the brain of an organism; such is a zone #6 view where you find neurons, synapses, ganglia, uptake channels,
molecular inhibitors, electro-chemical impulses, and other physical entities that have simple location. Zone #5 is not the feelings of the conscious subject, the interior first person qualia of zone #1. Zone #5 is not the physical brain and is not interior forms of consciousness. Rather zone #5 is the cognitive inside of a brain or organism, the first-person cognitive-biological software of the functioning organism. Zone #5 sees the enactive behavior of the autopoietic organism as a cognitive process in which “all knowing is doing and all doing is knowing.” Zone #5 cognition is not consciousness or interiority—it is the exterior equivalent of first-person qualia expressed as cognitive information structures within living systems (sentient beings or autopoietic unities). Zone #5 cognitive structures reflect zone #1 qualia—the former based in it-language while the latter is based in I-language.

Maturana and Varela describe the cognition of zone #5 as what an organism does to maintain its reproduction; cognition is knowledge from the perspective of the organism and is "something that an organism enacts as it structurally couples with its environment (that it does not recognize as separate from itself) in such a way that the organism and environment are both altered." Thus zone #5 is the perspective of the organism’s cognitive knowledge process as it self-organizes, self-maintains, and self-reproduces itself in the act of self-existence. “The being and doing of an autopoietic unity are inseparable, and this is their specific mode of organization” and this being and doing is the cognitive, enactive process of knowing that constitutes the zone #5 perspective.

The enaction methodologies for zone #5 include most specifically cognitive biology, cognitive neuroscience, biological phenomenology, second-order cybernetics, and connectionist approaches; methodologies that aim to reveal how the subjective organism represents, registers, processes, and responds to its environment and others. Phenomena apprehended in zone #5 can be described as: cognitive structures, cognitive processes, cognitive knowledge, cognitive information, cognitive “software,” autopoietic organization, autopoietic process, autopoietic self-organization, enaction processes, and informational structures when related to holons less complex that autopoietic systems (see example 3 below).

Examples of zone #5 phenomena: 1) the description of the cognitive processes and information pathways inside the dog’s brain/body and between the dog and owner when the owner throws a stick; 2) the description of the cognitive structures and processes within a songbird’s brain/body as it communicates its call in the spring; 3) the informational structures of complex molecules such as DNA and protein molecules.

**Zone #7 Cognition – The Inside of System/Environment**

The articulation and formulation of the zone #7 perspective essentially belongs to the work of one man, the German social theorist Niklas Luhmann. In order to understand the nature of zone #7, Luhmann asks the question: what are the essential component parts that constitute a society, individuals or communications between individuals? Unlike Maturana and Varela who saw society as a third-order autopoietic structure, Luhmann sees society as a first-order autopoietic system primarily constituted by a system of communication. Social systems according to Luhmann are most fundamentally constituted of meaningful communications, not by individuals. Like Maturana and Varela did with individual organisms, Luhmann retains first-person perspectives but in this case of the first-person perspectives of the participants in the social system. “For Luhmann, societal systems are not structural couplings of individuals. They are independent autopoietic systems constituted by communication” (Bausch 2001, p336). “Luhmann portrays society as a temporalized entity, that is, as a system whose events disappear from moment to moment, whose only enduring structure is its constant self-reproduction in the autopoiesis of communication” (p327).
Zone #7 represents the inside of material systems, their communication pathways, information exchanges, modes of transfer, e.g., social autopoiesis or network analysis—the “inside” of material systems, i.e., the information exchanges and communication channels for material ecosystems & social systems that are not themselves material but informational. Enaction methodologies that characterize zone-#7 phenomena include social autopoiesis; social cybernetics, communication theory, sociology, cognitive sociology.

Examples of zone #7 include: 1) the description of the information flows, symbolic exchanges, and communication pathways that maintain the organization of an agrarian social system; 2) the communication structures and information exchanges that characterize the organization and maintain the stability of an indigenous tribal group.

Summary and Conclusion

Integral Methodological Pluralism presents a coherent system for organizing eight primary kinds of methodologies or perspectives available to sentient beings. Each of these methodology types enact different kinds of phenomena represented by the four categories of phenomena discussed above: Matter, Qualia, Mind, and Cognition/Communication. Every sentient being by virtue of its constitution within the AQAL matrix and its holonic address of (at least) altitude plus perspective, will tetra-enact and construct these four phenomenal domains bringing forth a unique world.

The essential framework for an Integral Postmetaphysics has been carefully laid out by Wilber (2003, 2006) but work remains to be done fleshing and filling out the framework in further detail and through applications.
References
Kofman, Fred (2001); “Holons, Heaps, and Artifacts and their corresponding Hierarchies.” Article posted in the Reading Room at http://www.worldofkenwilber.com/.


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Notes

2 Because in Eastern cultures the sacred/secular division that is characteristic of the West is mostly absent, philosophy and spirituality/theology are part of the same tradition. Therefore, most Western intellectuals (other than specialists in Eastern culture and philosophy) dismiss the complex philosophies of India, Tibet, China, Korea, and Japan as “mere religion” and don’t give it the equal status it deserves with the Western philosophical tradition. For this and many other reasons, East/West syntheses remain stuck in widespread cultural misperceptions. For an excellent overview of Eastern nondual philosophies see 1) David Loy’s *Nonduality: A Study in Comparative Philosophy*; from a Buddhist perspective see 2) Guy Newland’s *The Two Truths*, and 3) Jeffrey Hopkins’ *Meditations on Emptiness*; and for the Advaita Vedanta perspective on nonduality see the concise work by Deutsch, and 4) the definitive work of Dennis Waite, *Back to the Truth: 5,000 Years of Advaita*.
4 Stein, 2007.
5 Habermas, 1992.
7 The insight behind the fundamental interdependence, co-existence, and mirroring of a) interior-consciousness-quality and b) exterior-material-quantity cannot be emphasized enough as great efforts continue to be made to derive consciousness from all kinds of physical mechanisms, neural systems, or quantum gaps. As developmental and transpersonal psychology have shown, the problem of the origin of consciousness is not resolved at the orange- or green-altitude of formal rationality by deriving it from or reducing it to something else or simply explaining it away, but is rather dissolved at the turquoise- or indigo-altitude in “both/and” transrational awareness with the insight into the nature of duality and fundamental interdependence of opposites, an insight which is at the basis of the dissolution of other “intractable” philosophical problems such as the relations between mind/body, whole/part, and singu-
larity/plurality. What is an intractable issue at one altitude is a no-brainer understanding at higher levels of consciousness development. Such differences in understanding are described in the research on instrumental –vs. dialectical rationality described in Alexander and Langer’s *Higher Stages of Human Development*. For insight into the transformational and changing perceptions of philosophical issues see the work of Suzanne Cook-Greuter in post-autonomous ego development (Cook-Greuter 1999).

8 For discussions on the perspective of dialectical rationality see Basseches 1984, Cook-Greuter 2002, and Alexander & Langer 1990.

9 Vision logic is Wilber’s term for dialectical rationality and post-formal cognition.


11 Wilber 2003, Excerpt C.

12 Wilber elaborates on the postmetaphysical need to reject the myth of the given using the example of the existence of the reality “ecosystem” in the turquoise worldspace saying that, in the magenta worldspace, such a reality may have subsisted but, it cannot adequately cognize or bring forth a feature that can only be seen at a higher levels of cognition; (see Wilber 2006, footnote to pp250-251).

13 The qualifiers “quadratic,” “tetra-,” and “four-fold” refer to the same idea that there are four interdependent aspects of existence are part of every individual sentient holon.


16 Daniel Dennett, 1990.


19 The important point to remember is that “mind,” or whatever term is best applied to this zone pair, *is a particular type of phenomena* brought forth and seen by the methodologies of zones #2 and #4 whether of individuals or collectives. Mind is consciousness seen, qualia in it-language, the exterior contours of individual subjects and collective cultures.

20 Wilber 2003, Excerpt C, Appendix A.


22 The inside of social systems in zone 7 is more properly understood as “communication.” Here however, in order to designate a type of common phenomena between zones #5 and #7, the term “cognition” can be understood to be “the cognition of the social system” as a **social nexus agency**, NOT as a **dominant monad** which characterizes the cognitive unity of an individual holon.


24 The meditative traditions have shown development through series of deeper and deeper states (Brown 1986) but discreet states themselves do not develop.

26 Systems of meditative phenomenology especially in the Buddhist and Vedanta traditions emphasize two other natural states in addition to waking, dreaming and sleeping: turiya or Witnessing, and turiyatita or Nondual.


29 Rosen 1991, 1999; both Rosen and Prigogine are essential reading for understanding how postmodernism is deeply part of the emerging worldview of science.

30 With respect to zones #6 and #8—and between the upper and lower quadrants and zones in all cases—mention must be made of the critical distinctions between individual holons and collective holons and the important distinctions between (respectively) individual agency as dominant monad and collective agency as regnant nexus, and b) the constituent elements of individual holons –vs. the members of collective holons. For further reference see Kofmann 2001.

31 Bertalanffy, 1968.

32 Wiener 1948; McCulloch 1965; Ashby 1956.


34 Parsons 1977.


36 Bertalanffy 1968, p54.

37 Prigogine and Stengers 1984; Prigogine and Nicolis 1989.

38 Haken 2006.

39 Bausch 2001, p365

40 Maturana, Varela 1987, p49