Excerpt C: **The Ways We Are in This Together:** Intersubjectivity and Interobjectivity in the Holonic Kosmos

[Note: The following is a rough draft of certain portions of volume 2 of the Kosmos trilogy (whose volume 1 was *Sex, Ecology, Spirituality*). Feel free to share this with anybody you wish, but do not take it as the final draft that can be authoritatively quoted. Certain issues of terminology, especially in the math, are still being decided. I am posting these rough drafts simply to share various thoughts as they unfold. As drafts, they contain typos, repetitions, etc. Feedback and correx welcomed but not requested. We expect to publish volume 2 next year; its working title is "Kosmic Karma and Creativity," although the inside joke about the Kosmos trilogy is that we were going to try to have the word "sex" as the first word in each of the three titles. So, um, "Sex, Karma, and Creativity"; or "Sex, God, and the Big O." Nevermind. Anyway, we hope to have it out next year, along with 3 more volumes of the Collected Works (**CW9**: *Boomeritis* with its endnotes and sidebars—a total of about 900 pages; **CW10**: *A Theory of Everything*, essays, interviews, forewords; **CW11**: *Kosmic Karma and Creativity*, also around 900 pages). This present excerpt is one of 7 or so excerpts of first drafts that I am posting of KKC (Excerpts A and B are on Shambhala.com; the rest will be posted here and on integralinstitute.org). Pretty much everybody is calling KKC "wilber-5"; after vacillation, I agree, for what it's worth. In any event, the following excerpt is the first that really gives a flavor of this post-metaphysical approach. All of the previous elements are, of course, transcended and included in the new approach; but they are radically reconceptualized in a way that has no historical precedents. Does it work? See what you think…. KW.]

Part I. INTRODUCTION—Systems Theory versus Hermeneutics: Why Both Are Important

Overview

In Excerpt A ("An Integral Age at the Leading Edge"), we summarized the evidence suggesting that a cultural elite, representing less that 2% of the adult population, was entering psychosocial waves of development that could best be described as *integral*, and that this 2% might very well be the harbinger of integral waves of consciousness to follow in the culture at large. It is a paradoxical situation, in a sense, in that this "elite" is the first to actually embrace a radical *inclusiveness*, an inclusive not shared by the other 98% of the population at this time (although they, too, might develop into this inclusive and integral orientation). But the integral waves of consciousness, however conceived, have at least one thing in common: an understanding that "Everybody is right."

This means that the chief activity of integral cognition is not looking at all of the available theories—whether premodern, modern, or postmodern—and then asking, "Which one of those is the most accurate or acceptable?," but rather consists in asking, "How can all of those be right?" The fact is, all of the various theories, practices, and established paradigms—in the sciences, arts, and humanities—are already being practiced: they are already arising in a Kosmos that clearly allows them to arise, and the question is not, which of those is the correct one, but what is the structure of the Kosmos such that it allows all of those to arise in the first place? What is the architecture of a universe that includes so many wonderful rooms?

One such suggested architecture of the Kosmos is called **AQAL** (pronounced "ah-qwil," short for "all quadrants, all levels, all lines, all states, all types…"). The pragmatic correlate of

AQAL metatheory is a set of practices (or meta-paradigms) referred to as Integral Methodological Pluralism, which attempts to honor and include the many important modes of human inquiry already arising in this spacious Kosmos.

We particularly focused on the quadratic aspects of this methodological pluralism, where "quadratic" refers to four of the most basic dimensions of being-in-the-world, dimensions that are so fundamental they have become embedded in natural languages as variations on first-, second-, and third-person pronouns (which can be summarized as "I," "we," "it," and "its"). As we saw, these represent the inside and outside of the singular and the plural: hence, the four quadrants (*subjective* or "I," *objective* or "it," *intersubjective* or "we," and *interobjective* or "its"). A few aspects of these four dimensions are indicated in figure 1.

We also saw that human beings, over the decades and sometimes centuries, have developed time-honored methods of inquiry that enact, bring forth, and illumine these basic dimensions of being-in-the-world. For example, **phenomenology** and **introspection** enact, bring forth, and illumine the first-person singular dimensions of being-in-the-world ("I" or subjectivity, the UL quadrant); **hermeneutics** and **collaborative inquiry** enact, bring forth, and illumine the first- and second-person plural dimensions of being-in-the-world ("thou/we" or intersubjectivity, the LL quadrant); **empiricism** and **behaviorism** enact, bring forth, and illumine the third-person singular dimensions of being-in-the-world ("it" or objectivity, the UR quadrant); and **ecology**, **functionalism**, and **systems theory** enact, bring forth, and illumine the third-person plural dimensions of being-in-the-world ("its" or interobjectivity, the LR quadrant). Of course, there are many other important modes of inquiry, but those are a few of the historically most significant, and certainly ones that any integral methodological pluralism would want to address.
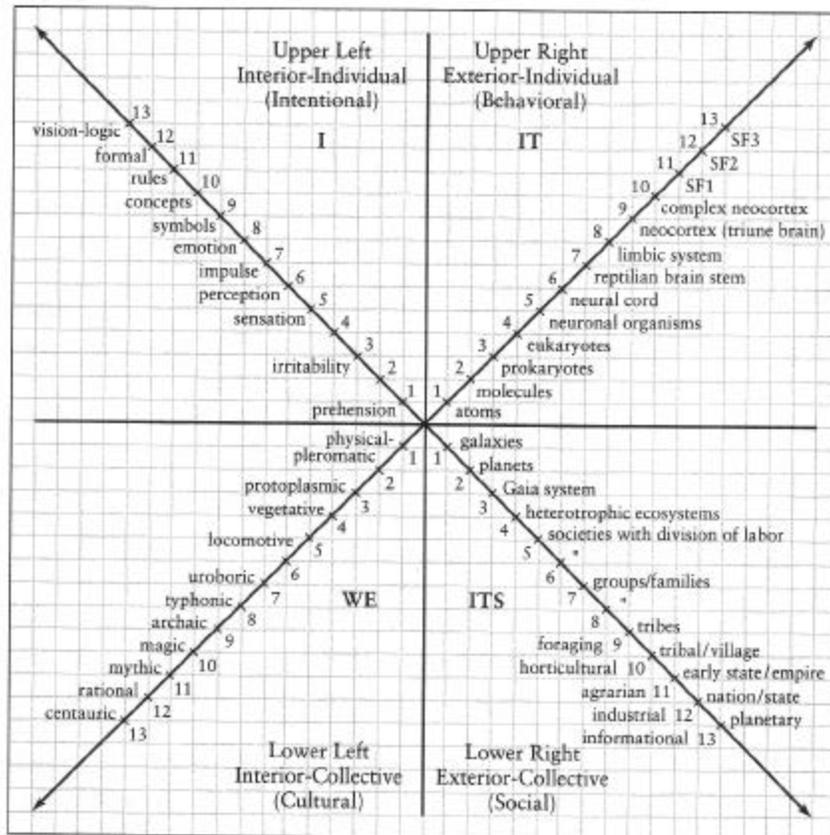
Figure 1. *Four Quadrants*.

We also saw that the collective or communal dimensions—the intersubjective and interobjective dimensions—are not something that can be *derived* from the interactions of subjects and objects, but rather, the intersubjective and interobjective dimensions are there from the start, *along with* subjectivity and objectivity, and not something that "comes after" subjects and objects. Nor, however, do we go to the other extreme and imagine that, for example, intersubjectivity is somehow more fundamental than subjects and objects, or that subjects and objects "come after" or "out of" intersubjectivity (if so, any genuinely individual creativity would be nullified, which we have ample reason to believe is not the case). The four quadrants are not

four different occasions but four different perspectives on (and hence dimensions of) every occasion. (That is, various perspectives—such as first-, second-, and third-person—are not merely perspectives on a pregiven single event, but rather bring forth and enact different aspects or dimensions of an event, and hence these perspective-dimensions are ontically not reducible to, nor interchangeable with, each other.) The whole point of a quadratic approach is that all four dimensions *arise simultaneously*: they tetra-enact each other and tetra-evolve together.

The pre-quadratic approaches that imagine one of these dimensions to be prior or fundamental—and the others to come after or out of the allegedly prior dimension—are caught in what we called *quadrant absolutism*, which takes a favorite dimension and absolutizes it, making it the ground out of which all other dimensions must issue. (Modernism tends to privilege objectivity; postmodernism tends to privilege intersubjectivity; ecology tends to privilege interobjectivity, etc.) We also saw examples of *wave absolutism*, *stream absolutism*, and *type absolutism.* Such absolutisms seem contrary to the spirit of an integral methodological pluralism, which is guided, as we saw in Excerpt B, by the heuristic principles of nonexclusion, enfoldment, and enactment. Accordingly, such absolutisms would likely find little place in an integral metatheory, although their respective methodologies would (it is the absolutism, not the inquiry, that is declined).

In this Excerpt, we will focus on the collective or communal dimensions of being-in-the-world (the Lower-Left and Lower-Right quadrants)—the actual nature of intersubjectivity and interobjectivity—especially as seen in **hermeneutics** (or *first-person* interpretation within circles of "we") and in **systems sciences** (or *third-person* observation of networks of "its"). After some preliminary suggestions as to the important differences between those approaches—neither can be reduced to the other nor replace the other—we will then focus the rest of this Excerpt on hermeneutics and **intersubjectivity**, and devote most of the next Excerpt to systems theory and **interobjectivity**.

Primordial Perspectives of Being-in-the-World

In this Excerpt, we will take as examples actual occasions (or holons) in each of the four

quadrants, and then consider what those holons look like or feel like *from the inside*, and contrast

that with what they look or feel like *from the outside*. In other words, we will be considering

what an "I" looks like from the inside and from the outside; what a "we" looks like from the

inside and from the outside; and so on with an "it" and an "its." These are schematically

indicated in figure 2—the insides and outsides of holons in the four quadrants.
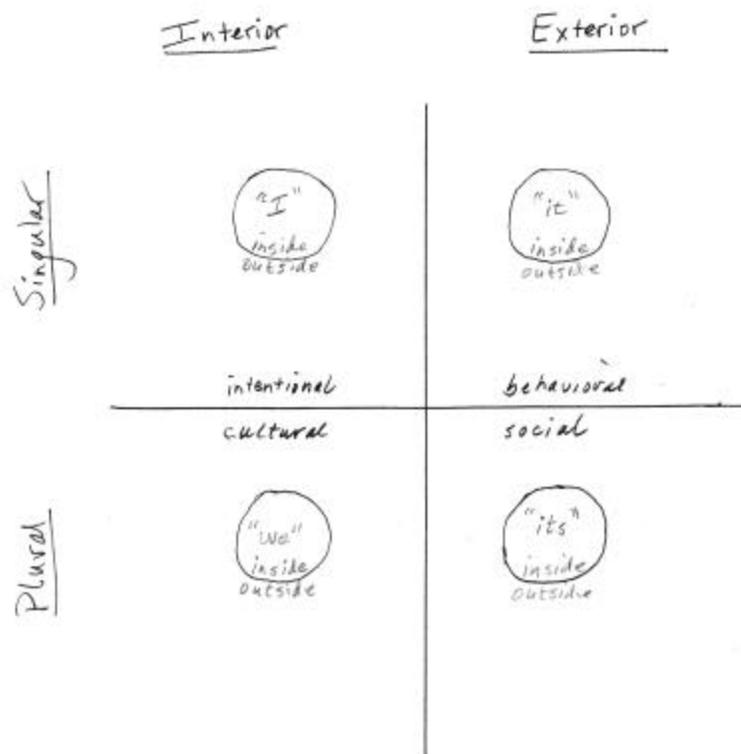
Figure 2. *8 Native Perspectives*.

The result, as you can see in figure 2, is an outline of **8 primal or indigenous perspectives** that all holons have available to them. Far from being some sort of abstract systematization, these 8 native perspectives turn out to be the phenomenological spaces from which most of the major forms of human inquiry have been launched. Some of these major modes or paradigms of inquiry are indicated in figure 3.
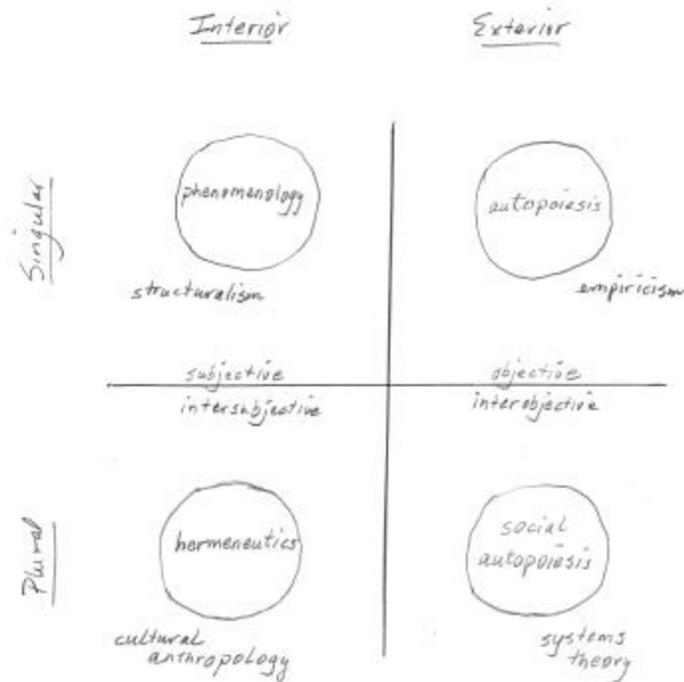
Figure 3. *Major Methodologies*.

We will be discussing all of those items more carefully in the following sections. For now, our simple introductory point is that by honoring all of the indigenous perspectives of being-in-the-world, we can more graciously arrive at an Integral Methodological Pluralism that embraces the many modes of inquiry that human beings are *already* practicing in any event—and

they are practicing them because these methodologies are "real" by any meaningful definition of that word. The various methodologies—from empiricism to hermeneutics to behaviorism to systems theory—are as real as the first-, second-, and third-person perspectives that enact them. The attempt to privilege any single methodology is simply an attempt to violate the other native perspectives that support different practices, a violence that any genuine Integralism—guided by nonexclusion, enfoldment, and enactment—would surely want to avoid.

An Integral Calculus of Primordial Perspectives

The suggestion, which we will explore throughout this excerpt, is that because the manifest universe is composed of holons—all the way up, all the way down—and because all individual holons are sentient (or possess prehension), then these dimensions or perspectives of being-in-the-world accompany holons wherever they appear—atoms to ants to apes—not necessarily as self-reflexive perspectives, but as dimensions of their own being-in-the-world. In other words, these perspectives are indigenous to all sentient beings.

I will sometimes refer to the sum total of the various perspectives as an **integral calculus of indigenous perspectives**. The phrase "integral calculus" does not mean mathematics; it is used in a very general sense as any mental overview or "calculus" that includes all these perspectives (fig. 2, for example, is one version of an integral calculus of indigenous perspectives). Figure 2, needless to say, is simply a map, a formalism, a third-person set of abstractions, but as abstractions go, it has several advantages, the first of which is that, even though it is merely a third-person system of symbols, these third-person symbols explicitly include first- and second-person realities. An integral calculus is just a map, but unlike most other maps, it does not ignore, suppress, leave out, or deny first-, second-, or third-person dimensions.

As it turns out, this integral overview can also be applied specifically to mathematics, if one is so inclined. A truly integral mathematics would view the world not as a collection of

objects but a gathering of sentient beings, and accordingly would replace variables with views, domains with subjects, and perception with perspectives. We will pursue this in **Appendix B** (below) for those interested.

The point is that any type of "integral calculus"—from simple overviews to an actual mathematics—is merely a third-person abstract phrase for what are actually first- and second- and third-person realities and dimensions of being-in-the-world, but we will use that phrase as a *simple reminder* to never forget those dimensions. Like IOS ("Integral Operating System") and AQAL ("all quadrants, all levels, all lines…"), these are merely third-person tokens and skeletons of life and consciousness, soul and sentience—but third-person reminders to include all of those first persons and second persons in all things integral.

Two Major Approaches to Systems Theory

We begin with a quick overview of **systems theory**, in order to establish some of the central issues we will be addressing. By running systems theory through an integral calculus of indigenous perspectives, we can more easily appreciate both its strengths and weaknesses.

There are many ways to categorize the various types of systems theory, from historical to methodological to theoretical. While not in any way wishing to overlook the many important distinctions between the various schools, I would like in this excerpt to focus on what are perhaps the two most influential types of systems theory today. As Bausch points out, there are today "two grand unifying theories of present-day systems thinking: (1) complexity/bifurcation/components systems and (2) autopoiesis"—which we will simplistically call **systems** and **autopoiesis**.[1] We will also look at attempts to integrate these two important approaches; but first, their specific contours.

Here are technical details, for those interested, followed by a brief summary:

These two strands of thinking advance systems theory beyond the bounds of mechanical (closed) models and organic (open) models and move it into the arena of emergent models. Component-systems thinking, which is propounded by Csanyi, Kampis, and (to some extent) Goertzel, is an outgrowth of Bertalanffy's General Systems Theory (GST). GST "enabled one to interrelate the theory of the organism, thermodynamics, and evolutionary theory" (Luhmann). Component-system theory loosely includes the bifurcation thinking of Prigogine, the molecular biology of Eigen, the complexity thinking of Kauffman and Gell-Mann, the physics of information theory, and the sociology of cognitive maps. It describes the processes that generate increasing unity and complexity in specific details that are alleged to have universal application.

Autopoiesis in its biological form, proposed by Maturana and Varela, considers organisms as systems that are closed in their internal organization, but open on the level of their structural composition and metabolism. Autopoiesis in its sociological form, proposed by Luhmann, focuses on the difference between system and environment and identifies autopoietic systems with the unity of contradiction that derives from their being simultaneously autonomous from their environment and totally dependent upon it. In our thinking about autopoietic and component-systems, we discover vistas of new and possibly fruitful explanations of physical, organic, social, and cultural processes. It turns out that these ideas [component-systems and autopoiesis] comprise the bulk of the ideas that are considered and evaluated in this research.[2]

The first approach is the more standard **dynamic systems theory**, which (for this simple classification) includes a wide variety of items such as general systems theory, cybernetics, dissipative structures, component-systems, chaos theories, complexity theories, and so on. As we will see, dynamic systems theory is often called the "**outside**" (or **rational**) view, because it

attempts to give the overall view seen from the outside: "detached, objective, systemic, reconstructive."

The second major approach attempts to give an account, not of the system seen from without, but the inner choices made by an individual organism as it actively participates with (and enacts) its environment—this is the **autopoietic** perspective, also called the "**inside**" (or **cognitive**) view.

(By the way, all of those terms—*autopoietic, cognitive, inside; systems, rational, outside*—are the terms used by the theorists themselves, as ample quotes will show. At this point, I am not giving my own interpretation of these schools, simply reporting how they see themselves.)

So we have a systems/rational/outside view, and an autopoietic/cognitive/inside view. Some people are confused at the use of "rational" and "cognitive" in that scheme, because often those two words mean the same thing, so why in this case are they diametrically opposed to each other? As employed by the theorists themselves, "cognition" is used not to specifically mean "rational" or "intellectual," but in its wider and more accurate meaning, which is any organism's attempt to register its environment (e.g., an amoeba reacts to light, so it has a rudimentary cognition of light). In this sense, if I take a "cognitive" view of biology, then I will try to explain, *from the inside view of the organism*, the types of reactions, behaviors, and cognitions that the organism itself makes as it encounters, enacts, and brings forth its world. This is also sometimes called **biological phenomenology**, because it attempts to describe the phenomenal world of the organism itself. This is what the autopoietic approaches, pioneered by Maturana and Varela, attempt to do. Thus: the autopoietic, cognitive, inside view.

"Rational," on the other hand, is merely one type (or level) of cognition; as used by these theorists, it means the rational activity of the scientists themselves as they attempt to explain phenomena in terms of, say, complex dynamic systems of mutual interaction. In this general systems approach—the "rational" approach—the attempt is not made to "get inside" the

organism, but to stand back and try to see the whole picture, the total system or web of relationships as they mutually interact with and influence each other. This "rational" view is not saying that the Web of Life is merely a rational entity, but simply that scientists attempt rationally to study that Web. Thus: the systems, rational, outside view.

Notice that, although all organisms have a cognitive view of their world, only scientists have a rational view.

The profound tension between these two general approaches—cognitive and rational— can be seen in the fact that Maturana and Varela, the most influential pioneers in the autopoietic approach, *explicitly refuse to include the systems view in their explanation of the behavior of the living organism.* Why? Because the systems view is NOT available, for example, to the amoeba when it reacts to light, and therefore the systems view cannot be a part of the explanatory principles of biological phenomenology.

Maturana and Varela are not saying that there isn't some sort of larger system operating (a system that is rationally conceptualized by the systems approaches, such as the Web of Life, which is itself a concept held by some humans, not a concept held by wolves or worms or bacteria). Maturana and Varela are simply pointing out that the individual biological organism does not contain that overall systems *cognition* as part of its cognition, and therefore forcing the general systems view on the organism itself violates its actual phenomenology (unless that organism happens to be a rational scientist using systems theory in his or her cognitions).

There is clearly merit to what Maturana and Varela are saying when they point to the violence that can be done by forcing the systems view on the lifeworld of the organism, a warning also issued by Habermas (among many others), each of whom have pointed out that the idea of a great Web of Life is an anthropic notion that violates biological phenomenology in important ways (it is actually "anthropocentric" in that only humans conceptualize life in that fashion, and thus promulgating the Web of Life is privileging a cognitive life-view that most organisms simply do not share).

At the same time, there are also important truths that seem to be captured by the systems view in its many forms. And, in fact, most of the attempts at a "complete" systems theory have focused on integrating those two approaches, autopoietic and systemic.

Let me now succinctly state my criticisms of both those views and then we will discuss their merits. My major reservation is that *neither* of those approaches (nor both combined) cover all four quadrants, only two of them—namely, the insides and outsides of the exteriors, not the insides and outsides of the interiors—and thus even combining them won't deliver integrality. It is by beginning to employ an integral calculus of primordial perspectives, which highlights the phenomenological worlds embedded in these approaches, that we can begin to truly appreciate their respective contributions (as well as specific limitations).

Here are a few examples. As Bausch reports, "The idea of autopoiesis, as a closed cycle of self-reproduction in which systems survive and progress by structurally coupling with their environments, is a major catalyst of much present-day systems thinking." He goes on to point out that "this idea sparked Luhmann to his conception of society as an autopoietic system of communication." However, as Bausch notes, the two major perspectives are at odds in these theorists: "Maturana and Varela carefully craft a model of biological phenomenology in order to maintain the inside autopoietic viewpoint. Luhmann switches between the autopoietic viewpoint and the viewpoint of the detached, objective observer" (i.e., the two major approaches, cognitive and rational).

Bausch continues, and highlights the tension between these two approaches: "Luhmann, like Maturana and Varela before him, explains the origins of the social world from the viewpoint of a participant making selections form the complexity of its world [the inside/autopoietic view]. In his model, he builds social structures upon the never-finished project of resolving double contingency. Luhmann later adopts the position of a theoretician [outside, rational, systemic observer]. Luhmann jumps from the involved-participant perspective to the all-encompassing viewpoint of the 'objective' observer. He switches from the internal perspective of an autopoietic

system facing an uncertain world to an objective theorizing perspective that prescribes a developmental logic for autopoietic systems." We likewise find the same (not fully resolved) tension in Habermas: "Habermas describes communication as a dispassionate academic observer. He develops his theory of communicative action with careful attention to detail; he provides structure for his theory by reconstructing the thought of Weber, Marx, Mead, and Durkheim. Through his method of scientific reconstruction, he gains distance and a certain mediated objectivity for his conclusions."

As noted, virtually all leading-edge social systems theorists agree that there is some degree of truth in both approaches—there are autopoietic choices and cognitions (which attempt to take into account some sort of lifeworld or first-person realities) as well as a type of mediated objectivity that can be reconstructed (by third-person systemic approaches). I certainly agree that any integral approach would want to include both methodologies (i.e., both paradigms or social practices).

The point right now is simply that the autopoietic or "first-person" approaches aren't really first-person. They are not described in "I" terms, they do not require a knowledge by acquaintance, they are not grounded in solidarity, they do not give a phenomenology of interior prehension but exterior cognition—in short, they do not actually or fully address the UL, nor, for the same reasons, do they include a full-fledged intersubjectivity (LL).

For most of the autopoietic approaches, the individual organism *enacts* a world via a history of structural coupling: that is Varela's enactive paradigm (which we are calling a partial enactive paradigm because it taps into partial aspects of tetra-enaction). To that extent, it is a significant advance over the previous approaches that saw the organism as merely representing or responding to the world (the myth of the given and the Mirror of Nature), or as being merely a part of the Web of Life—a view, as we saw, that the autopoietic approaches severely criticize.

(They do so because most Web-of-Life theories presuppose the discredited Mirror of Nature epistemology, which claims that nature or the biosphere is an interwoven Web of

inseparable relationships, and we should live in harmony with, or accurately mirror, that Web, a view which fails to adequately take into account that different autopoietic patterns enact different worlds. There is not merely a pregiven Web that we are supposed to *reflect correctly*—a representational and monological view that, Varela correctly points out, embodies an outmoded modernist/Enlightenment epistemology—but rather a series of lifeworlds and worldspaces brought forth through autopoietic cognition and structural coupling, and how to relate those various phenomenological worlds has not been addressed or recognized by any major Web-of-Life theorist. Niklas Luhmann finished the critique by pointing out that social systems are not composed of organisms but communication—a crucially important distinction we will return to. AQAL was designed in part to incorporate these types of postmodernist correctives, which would account for, and allow, all such enactive spaces phenomenologically to arise. When I refer to "the Web of Life," context will determine whether that means a monological Web of Life, which is indeed outmoded and is being criticized, or an *enactive* Web of Life, which is the more adequate view of the LR quadrant of interobjectivity, *but is still a third-person overview* that cannot be substituted for the corresponding interiors accessed by hermeneutics and phenomenology. We will be revisiting all of these important topics as we proceed.)

   In short, autopoietic theories remind us that the objective organism is not merely a strand in a Web, but also a relatively autonomous agent enacting its environment, an environment that is not a pregiven Web but is rather brought forth in part by the autopoietic regime of the organism itself. This means that the organism possesses various phenomenologies (or interior realities) that are part of bringing forth or enacting its world. Those interior realities are known from within as experience, and are seen from without as behavior.

   It was through such careful attention to the actual lifeworld of an organism that Maturana and Varela were brought to their revolutionary ideas about biological phenomenology. They wanted to give, not just the "outside" view, but the "inside" view—hence, the two main approaches in today's systems sciences.

But the main problem is now likely obvious. Although the "inside" or autopoietic approaches do indeed attempt to represent the inner choices and enactments of the participatory organism, they do not give a *first-person* phenomenal account of the actual interiors or prehensions of organisms (UL), but rather an *objective third-person description* of those interiors as they enact their environment via structural coupling (UR). In other words, the "interior" or "autopoietic" or "inside" approaches are not really "the <u>inside</u> of an <u>I</u>" but "the <u>inside</u> of an <u>it</u>" (i.e., autopoiesis is describing the insides of a holon in Upper Right, not the insides of a holon in the Upper Left)—that is, not prehensions but atoms, not feelings but neural-net choices, not lived presence but structural coupling, not intentions and desires but cognitive maps of the lifeworld, and so on. The insides of the interiors are reduced to the insides of the exteriors, which collapses the Left Hand into the Right Hand—and the very interiors you were trying to honor get erased from the Kosmos. So most of the autopoietic approaches correctly attempt to structurally integrate the individual organism (UR) and the interobjectively enacted environment (LR), but they often reduce much or all of the UL to the UR and the LL to the LR—the very essence of subtle reductionism.

This is not to suggest that the autopoietic approaches are wrong, only that they are situated in third-person, not first-person, modes of inquiry. Again, by using an integral calculus of indigenous perspectives, we can more carefully unpack the implicit perspectives in the autopoietic view and thus more readily appreciate both its strengths and weaknesses.[3]

On the other hand, the systems approaches give a superb account of ecological systems seen from without (e.g., systems of mutually interactive processes and dynamic networks of its), a cognition that, although not available to most organisms, is nevertheless an important perspective on the nature of certain dimensions of being-in-the-world. Of course, the traditional systems theories do not adequately cover those ecological networks from their interiors, which are not composed of systems of process "its" but of mutual understandings in circles of "we." The exteriors of systems are well-captured by ecology; the interiors, by hermeneutics. There are very

important truths (i.e., perspectives) contained in all of those approaches, and all would clearly

find a place in any integral methodological pluralism—if shorn of their absolutisms.

That is our goal: to "reverse engineer" an explanatory framework that plausibly accounts

for all of those major methodologies—from phenomenology to autopoiesis to systems theory to

hermeneutics—by "transcendentally deducing" a structure of the Kosmos that would allow those

methodologies to arise and exist in the first place, because already exist they do. The suggested

explanatory framework is called AQAL; its orientation is an integral overview of indigenous

perspectives; its social practice is an Integral Methodological Pluralism; its philosophy is Integral

Post-Metaphysics; its signaling network is IOS (Integral Operating System)—all third-person

words for a view of the Kosmos in which first persons and second persons are irreducible agents,

bearers of sentience and intentionality and feeling, not merely matter and energy and information

and causality.

It all starts by listening to our own native perspectives.

What Do "Inside" and "Outside" Mean?

In order to get at the heart of these issues, we need a simple terminology for the many

different uses of the words like "inside," "internal," "interior," and "outside," "external,"

"exterior," because different authorities seem to mean different things by those words. Obviously

this is a bit of a semantic bramble, so we need to keep it as simple as we can while still covering

as many bases as necessary (in order to do as little violence as possible to the native perspective-

dimensions of being-in-the-world).

Because the quadrants themselves represent four of the most basic perspectives of being-

in-the-world, the simplest way to proceed is to use them as a reference point. As previously

noted, figure 2 is a schematic of the quadrants, with a holon drawn in each quadrant. (A holon is

a whole/part, or whole that is a part of other wholes. The "boundary" between the "inside" and

the "outside" of each of the holons in fig. 2 is simply the boundary between its "wholeness"—on

its own inside—and its "partness"—or where it is a part of a whole that is outside of its own

boundary. We will be looking at the "insides" and the "outsides" of each of these four major

types of holons—the inside and the outside of an "I," a "we," an "it," and an "its.") Of course,

there are not different holons in the four quadrants; the four quadrants are the four dimensions of

every holon.[4] But it is easier and simpler to say things like "holons in the UR quadrant," and so

on, which is fine, as long as the tetra-nature of any holon is remembered.

With that in mind, we can use the world **interior** to refer to any occasions or holons in

the Left-Hand quadrants, and **exterior** for any occasions in the Right-Hand quadrants. The upper

quadrants refer to individual or **singular** holons, and the lower quadrants refer to **plural**, social,

or communal holons. So the four quadrants represent the interiors and the exteriors of the

singular and plural (fig. 2).

How are these related to first-, second-, and third-person perspectives? "First person"

refers to the person **who is speaking** (*singular*: I, me; *plural*: we, us); "second person" refers to

the person **spoken to** (*singular*: you; *plural*: all of you); and "third person" refers to the person or

thing being **spoken about** (*singular*: he, she, him, her, it; *plural*: they, them, its).

Although with singular and plural forms the "three persons" gives us six perspectives, for

most purposes, those condense down into 4 fundamental perspectives: I, we, it, and its. The main

reason is that, although the second-person "you" is crucially important, if I am a first-person

speaker talking with second-person you, the clear implication is that you can understand me to

some degree, and therefore each "you" actually exists as part of a "we," or else no

communication would occur at all. This is why "you/thou" (second person) is often treated

together with "we" (or first-person plural, which is why I sometimes summarize first-, second-,

and third-person pronouns as "I, we, and it"). We will in no way be neglecting second-person

perspectives, but for simple overviews, they can usually be included as part of first-personal

plural perspectives—you and I understand each other only when we can both say "we."

A **first-person perspective**, reality, or dimension is something that can be seen only by a speaker in a particular worldspace. (As we will see, "speaker" does not necessarily mean linguistic speaker, but any prehensive subject—cells to ants to apes.) A first-person holon can certainly see and feel exterior objects and events, but the one thing a first person can see (that nobody else can see) is his or her own interior space—the space described in "I" language. This I-space is essentially the Upper-Left quadrant. It refers to the *interior* phenomenological spaces of an *individual* (singular) holon. An "I-space" is the *phenomenological space* brought forth, enacted, and illumined by a particular subject of consciousness.

If a **second person**—such as you—enters my worldspace (or my "I-space"), then you and I might be able to enter into communication, dialogue, and some sort of understanding—as is hopefully happening right now with the words you are reading. If that occurs, second-person "you" and first-person "I" become part of a first-person plural "we" (or a hermeneutic circle of understanding). Of course, if you and I were together in the same room, we would take turns being first and second person, so that a mutual dialogue would occur that would more easily enact a "we" (which occurs when both you and I can say, "We understand each other"—not necessarily agree with each other, but understand each other). But the essential point is that a "you" and an "I" can come together to form some sort of phenomenological "we-space."

This "we-space" is essentially the Lower-Left quadrant (also sometimes called a "thou/we" space, which is what is usually meant by second person). The great mystery and miracle of any "we" is something that *we* will return to throughout this presentation, although it would be much better if you were here and we could take turns being the speaker.

So **interior** means any phenomena in an I-space or we-space (i.e., any holon in the Left-Hand quadrants: the *first-person realities* available to a holon as a bearer of sentience or prehension). **Exterior**, on the other hand, means any phenomena apprehended in a *third-person perspective* (i.e., any phenomena or holon in the Right-Hand quadrants: any phenomena in an "it-space").

Here's an example. You and I are talking, and we are talking about another person, George. George, of course, is the *third person* here. An interesting question is whether or not George can be a part of our conversation. That is, is it possible for George to understand what you and I are talking about? Let's assume George is a friend; in that case, the answer would be yes, in many ways George can join the conversation, and all three of us can take turns speaking (or take turns being the first person), and therefore all three of us could become part of a "we"— we understand each other. So when you and I are talking about that third-person "him," there are many cases in which that "him" or that "her" can potentially become part of a "we," or part of a first-person plural phenomenological space—part of a we-space of mutual understanding.

But what if George is from Russia? Or Mars? Or is in a coma? Then George is a third person who, under those circumstances, can *only* be a third person—can only be somebody we *talk about*, not somebody we can talk to or with. In effect, George is then nothing but an "it," or a third-person with whom we cannot enter into a relation of "we." George cannot become a real *second person* (with whom we talk), and therefore, in those instances, George cannot become part of our first-person plural "we."

So the really interesting question about third persons is whether they can ever become part of a "we" (any sort of "we," or any sort of shared or common perceptions, feelings, prehensions, and so on), or whether those third persons are fated merely to be "its." My dog Chester, for example, shares at least a few perceptions with me—I know he sees that bone, and I often think that WE are happy playing fetch. Chester is not merely an "it" to me; "he" (the third person we are now talking about) can on occasion become a second person that I am speaking to, and on some occasions I know that we share at least some feelings, so that Chester-the-second-person becomes Chester-part-of-the-first-person-plural we.

Notice that the definition of "third person" is "the *person* or *thing* being spoken about." This is a very interesting distinction found only in third person. A first person (as the person speaking) is, by definition, a sentient being; so is the second person. But the third person,

according to the standard definition, can be a "person" or a "thing," which means it can be sentient or insentient. Whether it is either of those, a third person is something that we are *talking about* (not to or with). Either that third person is somebody that we *could* be talking to but they are not here right now; or that third person is somebody (or something) that, even if they were here, we could *not* communicate with (for whatever reasons). The former is a "he," "she," "him," "her" (or plural: "they," "them"), and the later is an "it" (plural: "its").

Thus, as we define interior as any first-person (singular or plural) realities, we can define the **exterior dimensions** of any occasion as those aspects that *can be seen or felt as a third person*. In other words, they are those aspects of any occasion (or any holon) that you or I can be *aware of* but are not in some sort of *communication with* (either because we cannot do so now but might do so in the future—in which case the third person is a he/she/they that can become part of a "we"; or because these are third-person occasions that we can never or will never be in communication with—in which case the third person is only an "it" or "its" that will never enter a circle of "we" [see below]).

That is why most of the essentials of the indigenous perspectives are reflected in the four quadrants: I, we, it, and its. The other perspectives are crucially important in their own right, but the interesting question is whether they can be mutually engaged (as part of a "we" of common prehensions) or whether, for whatever reasons, they are on the "it" side of the street.

At the same time, this does not mean that the "it" dimensions are somehow superficial or derogatory; on the contrary, they represent the objective and interobjective dimensions of being-in-the-world, crucially important dimensions that include everything from atoms to molecules to ecosystems to morphic fields to subtle energies to DNA. It is simply that all of those dimensions can be portrayed or depicted in "it"-language, or third-person terms that remain as third-person terms. In other words, they are the exterior dimensions of events (or the Right-Hand dimensions).[5]

I, we, it, and its—the interior and exterior of the singular and the plural. Any given holon, say a feeling of love for my family, can be approached from (at least) these four native perspectives. Looked at from the interior or first-person perspective, there is an "I-space," a feeling of love, that overlaps with mutual feelings with other family members, so that there is a "we-space" shared by the other I's in my family (each UL subjectivity is part of a LL circle of intersubjectivity). Those phenomena can only be seen and accessed with first-person modes of awareness. In the Upper-Right quadrant, on the other hand, that feeling of love is correlated with an activated limbic system and increased levels of serotonin and dopamine, among other things (all of which are accessed with third-person modes of inquiry). And in the Lower-Right quadrant, I am part of a family system of interobjective processes—or an interwoven system or network of exteriors—which include modes of communication, family income, diet, drug and alcohol consumption, patterns of transportation, and so on, all of which are intimately meshed with, help bring forth, and cannot finally be separated from any interior feelings I might have.

Every occasion is what it is by virtue of networks of interconnections with each other, different aspects or dimensions of which are enacted, brought forth, and illumined by different perspectives on those occasions (perspectives that are themselves embedded in natural languages). AQAL metatheory handles this by saying that the social aspects (LR) of occasions never exist apart from the cultural aspects (LL), which never exist apart from the intentional (UL) and behavioral (UR) aspects—and so on around the circle of tetra-enacted dimensions of being-in-the-world.

That is a quick summary of the interior and exterior dimensions. Now we can introduce "inside" and "outside." By **inside** and **outside**, let us simply mean the inside and outside of any occasion wherever it is found. That is, the holons in all four quadrants have insides and outsides. As you can see in figure 2, there is the inside and outside of an "I"-holon, a "we"-holon, an "it"-holon, and an "its"-holon.

That gives us 8 native perspectives (the view from the inside and from the outside of holons in the four quadrants). I am not saying that those are the only native perspectives available to sentience; clearly, there are likely an infinity of permutations and combinations of the ways that sentient beings can see and touch and hold each other. These 8 perspectives are nothing but a selection from among that infinity; nonetheless, they seem to be the fewest number we need to cover most of the bases. These perspectives, as we will continue to see, are not abstract academic exercises but indigenous stances available to sentient beings in general.

A Kosmos Composed of Perspectives

In AQAL metatheory, individual holons (quarks, atoms, molecules, cells, organisms) are sentient beings, all the way up, all the way down. Even atoms have prehension. If you are not comfortable pushing sentience all the way down, feel free to pick up the story at whatever evolutionary point you think that experience or proto-experience of some sort emerges in the universe (and you can picture all of the lower forms as "precursors" of experience and awareness).[6] Presumably by the time we get to humans, the native (folk) perspectives of first-, second-, and third-perspectives have emerged, and you can take it from there.

But if we do view the Kosmos as being composed primarily of sentient beings—not systems, not processes, not webs, not information, not matter, not energy, but sentient beings— then we must simultaneously build a Kosmos composed of perspectives—not feelings, not awareness, not perceptions, not consciousness, for all of those are *always already* perspectives. If quarks have prehension, then the first quark is not a first particle but a first person. And whatever that quark registers is not a second particle but a second person. There is no way around this. The universe is built of perspectives.

Even a prehensively-challenged scientific materialist, who believes that the Kosmos is composed of nothing but matter (i.e., really frisky dirt), presents a picture or model of the universe that is itself a third-person object held in his first-person mind, a model developed via a

community of third-person-plural scientists all trying to hold the same third-person model in their minds. I am not saying that model isn't there; I am saying that it always already exists within a series of first-, second-, and third-person perspectives. Whatever else that model is—and it is many things—it is a third-person object in a first-person prehension.

Each sentient being (or individual holon) registers other sentient beings (or individual holons) in its own experiential or proto-experiential fashion—but none of them can register their existence in any way other than as a perspective. There is never a subject that sees an object. There is no actual perception in which one entity sees another entity, for that is already a first-person perspective on a second or third person. Thus, there is no real space that is not always already a space-arising-as-a-perspective; therefore we cannot say that occasions (or holons or beings) come into existence and then see each other, because the "seeing each other" and the "existence" cannot be asserted apart from one another. To say that the quadrants arise simultaneously is to say that ontological dimensions and epistemological perspectives are one and the same thing, which is why we often call them dimension-perspectives (and further say that they tetra-arise or tetra-enact, simultaneously and together: to say the quadrants arise simultaneously is to say that first and second and third persons arrive on the scene together).[7]

An integral approach recognizes a Kosmos composed of *sentient beings*, and sentient beings do not have awareness or feelings or perceptions, they have *perspectives*, within whose horizons those other features arise and outside of which nothing can believably be said to exist. I am not suggesting that there isn't a universe outside of human perspectives, only that there isn't a universe outside of sentient beings' perspectives, since the universe is composed of sentient beings (holons), all the way up, all the way down, and therefore the universe is, top to bottom, composed of perspectives.[8]

Before the evolutionary emergence of human beings, there was (I believe) an entire universe of sentient beings—quarks to atoms to molecules to cells to ants to apes—that were already arising for each other, to each other, as perspectives, because *whatever* it was that

emerged first in a self-aware universe was not a first thing but a first sentient being among other sentient beings: in other words, it was a first person among second and third persons, who were themselves first persons among other second and third persons.

It appears, then, that when a universe comes into being, if that universe has any sort of sentience at all, then what arrives on the scene simultaneously with whatever else arrives on the scene is: perspectives. This is why, whatever else the Kosmos is built of, it is built of perspectives, which are always already on the scene whenever two or more sentient beings exist (which is to say, always already everywhere that sentience is). Perspectives arise in emptiness: such is the beginning of sentient worlds.

The four quadrants (and 8 indigenous perspectives) are simply some of the different ways to look at the perspectives that seem inherent in the universe. These perspectives are not so much *a priori* (prior to existence), but *a simultori*, if you will forgive the corrupted Latin—they simply arrive simultaneously with whatever else arrives. If so, then the overall *array of their arrival* (traces and hints of which are deposited in natural languages) gives us a new way to understand the universe, a way that focuses on sentient beings instead of third-person notions like systems, particles, webs, processes, or monological subjects prehending objects, feelings, awareness, etc.—all of which are abstractions away from the actual form of sentience.

We will be pursuing that idea as we proceed; we will also explore the ways that these indigenous perspectives seem to be responsible for the major modes of human inquiry. Remember, for example, that "autopoiesis" was described as the "*view from the inside*" of the biological organism? Now we can see that organismic autopoiesis is indeed describing a view from the inside—namely, the inside view of the organism looked at in third-person terms (i.e., the view from the inside of a holon in the Upper-Right quadrant [fig. 2]). But organismic autopoiesis is not a view from within an "I" or a "we" or an "its." There are at least 4 different "views from the inside," because there are at least 4 different phenomenological insides (the inside of an I, we,

it, and its). Each of those "insides" looks very, very different. Autopoiesis captures one of them very well; the others, not at all.

(Autopoiesis is attuned to the insides of an it; the insides of an "I" and a "we" are best enacted and illumined with modes of inquiry such as phenomenology and hermeneutics. We will later see that Niklas Luhmann extended organismic or individual autopoiesis to cover the "inside view" of systems—or the inside of an "its"—which is therefore appropriately listed in fig. 3.)

Likewise, there is not one "view from the outside," but at least 4 important, very different views from the outside (captured best by modes such as empiricism, for the outside of an "it"; structuralism, for the outside of a "I"; and traditional systems theory, for the outside of an "its").

In short, those 8 indigenous perspectives appear to be responsible for most of the widely used and respected modes of human inquiry, including phenomenology, hermeneutics, empiricism, physical sciences, and systems theory. In the following pages we will be exploring each of those modes of inquiry, highlighting the ways that they unfold from the primordial perspectives available to every sentient holon (and how far down you want to push sentience is up to you).

We saw in Excerpt B that it is wise to proceed under the prime directive that "Everybody is right." Using an integral calculus of indigenous perspectives to unearth the natural viewpoints that are embedded—and already at work—in the major modes of inquiry allows us to more easily understand why the Kosmos is such that it allows those modes to exist in the first place—which can help us more easily to move toward an Integral Methodological Pluralism that makes abundant room for what sincere researchers are already doing anyway. This in turn allows us to remain faithful to an endeavor of nonexclusion, enfoldment, and enactment, thus finding that the Kosmos itself provides the modes of bringing forth its own manifestations and introducing them to each other, endlessly.

SOME EVERYDAY EXAMPLES

Insides and Outsides of Interiors

The 8 native perspectives we are highlighting are the insides and outsides of interiors and exteriors (as indicated in fig. 2, which includes singular and plural forms). The *inside* of an *interior* holon means, for example, anything on *the inside of the boundary of an "I" or a "we."*

The simplest example is my own self-awareness right now—or first-person subjective realities directly felt as "I." This immediate prehension or I-feeling (UL) is fairly straightforward and easy to understand.[9] Right now, there is a world arising in your I-space; and, like all first-person realties, that world directly and immediately presents itself to your naked awareness. It does not matter if some theorist, adopting a third-person distancing mode, postulates or hypothesizes that these immediate phenomena are mediated by other events (cultural or otherwise); at the moment of their presentation, they are immediate. You do not know this I-space by distance or *description* but by feeling and *acquaintance* (not third-person, but first-person).

Another common example of the inside of an interior holon is the inside of a we-boundary—a first-person plural reality, such as a shared understanding, a shared value, an intersubjective feeling, a group identity, and so on—what we will sometimes call "mutual prehensions." Natural language embeds this view quite often, as when we say, "You and I belong to a circle of friends" (i.e., you and I are inside a we-boundary).

You cannot see a we-boundary in the exterior or sensorimotor world (these are interior phenomena; all Left-Hand holons are "invisible"); but you and I both know quite clearly who is "in" our circle of friends and who is not (i.e., we know who is "in" and who is "out" of this circle). This "invisible" we-boundary happens to be very real, very obvious, very easy to spot. These interior boundaries, needless to say, hold the key to much of human motivation, dynamics, conflicts, and accords.

Look now at the **outside** of an **interior** holon—that is, anything on the outside of an I or we boundary (but still in an interior space). For example, in my own mind's eye, I can see images and objects, as when I dream, imagine, or visualize. What I see in my mind's eye are not exterior objects but interior objects. They are not forms in the exterior world, like rocks, but they are still outside my proximate I, because "I" see "them" in my mind. They are interior "third persons." They are often called "inner objects," which is fine, but using our terminology, we will also specifically be calling them "interior objects."

Another common example of the outsides of individual interiors—or something outside my I—is my own unconscious processes, subpersonalities, and certainly multiple personalities— they are all outside my proximate I but still in an interior space. Another item that is outside my I is your I, or how I experience you as a living, feeling subject, in a type of subject-to-subject resonance (and not merely how I see you as an exterior object or it). You are inside my culture but outside my I (we will return to that in a moment).

Those are some examples of the insides and outsides of a first-person "I" (the insides and outsides of a holon in the UL). There are also the insides and outsides of a "we" (the insides and outsides of a holon in the LL: the insides and outsides of a plural or collective interior). For example, as just indicated, if you and I are friends, or a strong "we," then I share a sympathetic space with you and identify with you in many ways; likewise, there are people who are *inside* our circle of friends, and those who are *outside* that phenomenological boundary (or outside that particular hermeneutic circle). We know exactly who is inside that circle and who is outside that circle—we even call them "insiders" and "outsiders."

A "boundary," of course, is often a fluid thing; and in all cases a boundary is not a barrier but an *interface*, or a region where two worlds are not just differentiated but joined. As theorists from Saussure to Derrida have noted, any sign has meaning only because it is part of a system of differences; but the equally true converse of that, rarely noted, is that a system of differences itself has no meaning unless part of system of touching, joining, linking, interfacing. A boundary

in AQAL space is the region of differentiation-and-integration of various dimension-perspectives. What we are doing here is simply tracing 4 of the most fundamental types of boundaries (belonging to an I, we, it, and its) which are the interfaces between 8 phenomenological worlds (or the insides and the outsides of an I, we, it, and its [fig. 2]).

Several different "I's" can be "inside" a "we," and that "insideness" is what is usually meant by *membership*. As we will see, there is a significant difference between "membership," or being a "**member** of a culture"—which means that we share a similar culture, subculture, or intersubjective commonality—and being a "**strand** of a social system," or a being a part, link, or strand of a physical or ecological system—a strand in a web—which is a web or network of exterior forms but not interior values and identities. Whether that web is considered as enacted or representational, it is still a web of exteriors (as we saw with autopoiesis). A "we," on the other hand, is established by a shared culture, a shared set of values, identities, prehensions, and so on, and not by geographical proximity or physical location (which would be a system, not a culture: "its," not "we's"). Social holons are networks of shared exteriors or signifiers, but cultural holons are networks of shared interiors or signifieds: intersubjectivity versus interobjectivity, hermeneutics versus ecology.

Where Is Ecological Awareness?

For example, you and I can live next door to each other, but if you speak Serbian and I don't, then you and I do not share much of a cultural "we." In that instance, you are outside my I; you are also outside my circle of friends (or intimate we's); and you are even outside my entire circle of spoken communication—in that regard, you are "all Greek" to me, or outside any we-boundary of mutual understanding. What you and I do share, however, is geographical or *physical proximity*, and therefore we are both parts of, for example, the same local ecosystem— we share an exterior social system, but not all aspects of an interior culture.

In other words, it seems pretty obvious that I do not have to share any sort of mutual understanding with my next door neighbor, nor with the insects around me, nor the worms under my house, in order to belong to the same ecosystem.[10] But I do have to share a mutual understanding in order to be a member of a given culture. This is why you and I can both be parts or strands in the same ecosystem web and yet not parts or members of the same culture—that's the difference between LL "membership" and LR "strand-ness"—or the difference between intersubjectivity (shared interiors, shared signifieds) and interobjectivity (shared exteriors, shared signifiers)—again, the difference between hermeneutics and ecology.

For those used to knowledge by description, or knowledge at a distance (or knowledge by sight), this is often hard to recognize, for the tendency is to want to picture or see culture in terms of simple location in physical space: culture must be somewhere that I can see with my eyes (e.g., culture must be over there by that stream, or by that tree, or the sum total of that stream and that tree and that mountain). Using monological knowledge by sight or distance, the cultural dimensions (and interior dimensions in general) are difficult to prehend, so let's do a "walk-through" on this one.

It is true that all exteriors have interiors, but those two dimensions don't overlap in physical space, because the interiors do not exist in physical space. Cultural interiors are phenomenologically composed of items such as mutual understanding, shared values, fused horizons, interpretive spaces, shared feelings. While a rock might fall in a gravitational field, mutual understanding does not. Thus, "same geographical space" and "same cultural space" simply do not map in any one-to-one fashion. They are most definitely interrelated (all quadrants are), and it is certainly the case that in the real world, the cultural or collective interiors (the cultural dimensions) always have exterior correlates (or social systems), so that a collective holon is always a *sociocultural* holon. (The social and cultural dimensions together is what is usually meant by the terms "collective," "communal," or "societal" holon—or a "**we/its**"; which, of course, is really an I/it/we/its). But the interiors of those holons are not in a phenomenological

relation of identity with exteriors, any more than are, say, the weight of a rock and the weight of suffering.

("Visual ecology," which relies on exterior perception—and is often found in males—has a harder time understanding interiors than does "prehensive ecology," which relies more on an orientation of felt-connections and touch, and is often found in females. The former relies on third-person modes of inquiry, the latter, on first-person modes. The former is therefore usually seen in deep ecology, systems ecology, and ecomasculinism, the latter in cultural ecology and ecofeminism—which is why ecofeminists have often been sharp critics of systems ecology as being a distancing and abstract affair. Both approaches are important, as we will see, in that one addresses primarily social systems, the other, cultural shared-prehensions. The point for now is that, indeed, they do not agree with each other, because they are intuiting different dimensions of the sociocultural holon, the males typically operating with third-person plural, the females, first-person plural—or, if you will, the exteriors and the interiors of "Gaia.")

As we were saying, while the interior spaces always have exterior correlates, they do not map onto those correlates in a topological fashion. Even "ecological consciousness," or a concern with the web of life, is itself generated in interior spaces of increasing identity, not exterior spaces of apprehended objects. Precisely because phenomenological "I's" and "we's" do not follow the laws of sensorimotor, exterior, physical, or geographical spaces, you and I can indeed be members of the same ecosystem but not of the same culture. Two human beings can live in the identical ecosystem, but one of them has an awakened ecological awareness and therefore evidences a care and compassion for all sentient beings, while the other human has no such ecological compassion whatsoever—which shows that ecological awareness itself is not a product of ecosystems.

Nor does this apply only or even especially to humans; the culture of wolves and the social system of wolves are not located in the same phenomenological spaces. The culture of apes and the social system of apes do not follow the same rules—trees and mountains and streams

weigh so many kilograms, ideas and values and feelings do not. What many ecologists mean by "living in accord with nature" is not actually living in accord with sensorimotor exteriors, but *developing interiors* that can have compassion for all exteriors and interiors. But all of these "I" and "we" identifications and affiliations are established by interior identities, values, and shared perceptions—not physical, ecological, or geographical location. They are Left-Hand, not Right-Hand, identities and boundaries, and hence they do not follow the laws of physics or ecology— they don't disobey them, either; they simply do not reside in physical phenomenological spaces.

(Where do they reside? Well, you tell me: right now you are aware of various I's and we's. Can you point to any of them? Can you point to mutual understanding? Can you point to shared values? Does mutual understanding fall in a gravitational field at the same speed as an apple? Does it fall at all? If having a human being adopt an ecological mode of awareness is not something that can be found in an ecosystem itself—since different people in the same ecosystem do not necessarily share the same values—then where do ecological values and ecological awareness exist? Since a tree does not take the role of other and hence cannot itself develop ecological awareness, what does "thinking like a tree" *really* mean? If cultural membership cannot be reduced to social strand-ship, then where can I find it? Ecological awareness is not living in accord with all sensorimotor its, but living in solidarity with all sentient I's, an awareness itself not found in any ecosystem as such.)

We will pursue this relation between collective interiors and collective exteriors at length in the next excerpt, and suggest that any truly "integral ecology" would want to include both. For now, we simply note that most eco-theories, systems theories, and complexity theories unfortunately collapse intersubjectivity into interobjectivity and therefore confuse members with strands—this is one of the major criticisms we will soon explore.

To return to shared interiors: Several "I's" can be "inside" a "we" (or can be *members* of a *we*) if they share a set of values, ideas, linguistic practices, group identities, background contexts, fused horizons, and so on. Of course, there are many different types and degrees of

"we's": a familial we, a friendship we, a tribal we, a philosophical we, a workplace we, a national we, a humanitarian we, an all-sentient-beings we, and so on (the higher reaches of Kosmic we-ness or solidarity will be explored below). Likewise, there are sub-cultures within a culture that are outside of "my friends" but still within a larger "we" of, say, our nationality.

All of those shared interiors involve the extraordinary mystery of how first-person singular "I" and second-person singular "you" enter into a first-person plural "we" (and how "you" as an alien object or "it" become a "thou" in a hermeneutic circle of understanding and care). This is why the extraordinary mystery of a "we" seems to hold the heart of the Kosmos hidden in its embrace….

Insides and Outsides of Exteriors

When it comes to the *exteriors*, or the third-person dimensions of being-in-the-world, the insides and outsides of holons are usually easier to spot, simply because they generally do have some sort of mass-energy boundary (either a physical boundary with most individual holons, or a systems boundary with social holons; this includes gross, subtle, and causal mass-energy boundaries; and it includes "information" considered as data bits or "b/its" in a system).[11] Here we are indeed talking about physical, geographical, and ecological boundaries—boundaries, more or less, that you can see in the exterior, physical world—such as inside and outside of my physical organism, or inside and outside of a local town, or the inside and outside of a galaxy.

Those boundaries, of course, are all interdependent. But "interdependent boundaries" does not mean "absence of boundaries"; it means their mutual inter-relatedness. All boundaries are interfaces of both differentiation from the Other and touching or relating to the Other, because all agency is agency-in-communion. But the differentiation is just as important as the relatedness. Complex living organisms have an immune system that recognizes and differentiates self and other; if that immune system breaks down, you do not have a nice mystical oneness but a dead organism. To transcend boundaries is not to break them but include them. Right now we are

looking at the natural boundaries themselves and how they autopoietically distinguish themselves from others—in this case, the inside and outside of exterior boundaries.

The *inside* of an *exterior* holon means anything going on inside the boundaries of an (individual or social) holon as seen and described in third-person, exterior, it-language—things like the mitochondria *in* a cell, the flora and fauna *in* an ecosystem, the ribonucleic acid *in* a nucleus, data bits (or "b/its") *in* an information network, the planets *in* a solar system, and so on.

Take the structure and components of your neocortex: your brain is "inside" you (or inside your physical organism), but this inside is described in objective, third-person, exterior terms (such as frontal lobes, neural pathways, serotonin, synaptic reuptake, etc.). If you actually want to see your brain, you have to get a mirror, cut open your skull, and look at your brain (a feat many people find difficult). But you can see your own immediate feelings, images, thoughts—your own mind—right now, simply by feeling your own feelings, your own interior.

This is the difference between you looked at from an exterior point of view (as an "it" or "organism," with a "brain" inside the "organism," and the "organism" part of an "ecosystem," and so on—all of which are third-person terms and perspectives), and you looked at from an interior point of view (as "I" or "mind" or "feeling"—an immediately present awareness that can only be captured in first-person terms and vantage points). Both are important, but right now we are talking about the *exteriors* of you, and how those exteriors have insides and outsides.

The *outside* of an *exterior* holon means anything on the outside of that holon's boundary (or external to its autopoietic regime). Outside an individual mitochondria is the rest of the cell. Outside of an individual organism is the local ecosystem. Outside of a social holon (in Luhmann's sense) there are other social holons. Outside of a given ecosystem there are other ecosystems, and so on. Those are all the outsides of the exteriors (all of which are described in third-person singular or plural terms and accessed only via third-person perspectives and modes of inquiry).

The main examples that we have looked at so far are the insides and outsides of an interior and exterior holon, each of which can be subdivided into singular and plural, giving us the 8 primordial perspectives of figure 2. What we will be doing in the rest of this excerpt is walking through each of these perspectives in a very simple, step-by-step fashion. I realize that for some readers this will be didactic, boring, and repetitious, and for that I apologize in advance. But my experience is that, although these perspectives are already present and already operating in native language speakers, most people only know them in an intuitive, diffuse way, which means that these perspectives are not being utilized in a conscious, explicit fashion, and therefore they tend to, shall we say, cause trouble (especially in philosophers, who should know better). Most people, for example, have never looked closely at what happens when two "I's" come together in a "we," and what a miracle that truly is.

We will therefore circle back to these primordial perspectives, each time iterating the essentials with a new twist, so that hopefully the wisdom deposited in these naturally occurring perspectives will become consciously available for a more integral methodological pluralism. Once we walk through these, we will be able to return to items such as autopoiesis, systems theory, hermeneutics, meditation, and ecology, and better understand how they relate to each other in a Kosmos that is already allowing them to occur.

We's and Its

Here is our first brief walkthrough:

Let's take a simple holon, such as a cell. "Cell" is merely a word, a signifier, for some sort of happening or occasion. From the exterior (or seen from without in a third-person fashion), we call it "cell" and describe what can be seen of it (under a microscope, for example). This *exterior cell* (which means, the cell and its components seen from without) contains numerous molecules, polymers, organelles, proteins, and so on—in other words, the *inside* of the cell contains molecules, proteins, organelles, etc.

But the *interior* of the cell contains no proteins, molecules, or organelles at all—it contains sensations, prehensions, proto-experiences, rudimentary feelings, and so forth (a la Whitehead, Hartshorne, Leibniz, Buddhism, etc.). The exteriors of cells (UR) are seen and described from a third-person vantage point; but the interiors of cells (UL) are only seen and felt from a first-person (or proto-first-person) perspective: from within (as an "I" or proto-"I"), not from without (as an "it"). So there is the inside of the interior, and the inside of the exterior—and they are quite different (but equally real) phenomenological realities enacted or brought forth by different indigenous perspectives.

Likewise, the *outsides* of the *exterior* cell include its physical environment, its ecosystem, its interobjective networks, the biosphere, and so on. Those can all be seen in the exterior, sensorimotor world. But the *outsides* of the *interior* of the cell include *other interiors*, interiors that do not exist in the exterior or sensorimotor world, but exist only in the phenomenological world of intersubjectivity or inter-interiority.

We gave an example of this as it appears in humans. "You and I are friends" means that you and I share a "we," it does not mean that we live next door—you can live in Antarctica and still be my good friend. "Next door" is merely the outside of my *exterior*; but friendship is not a geographical or sensorimotor relationship, but a hermeneutic relationship, a circle of meaning and value—a circle of "we," not a circle of "its," systems, mass, energy, or food chains.

Thus, when my being-in-the-world is viewed from a third-person perspective, my individuality appears as a biophysical organism with a triune brain and various objective processes, organ systems, neurotransmitters, hormonal communication networks, metabolic pathways, and so on (all of which are simply my existence viewed from a third-person stance, or my existence as I manifest in a third-person mode). When my existence appears in that exterior or third-person mode—which means, as an organism located in sensorimotor or physical space— then *outside* of my organism are my local physical surroundings, including other nearby organisms, my local ecosystem, and my proximate social system (such as the town in which I

reside in my physical or exterior mode). As an individual physical organism I am *inside* that *exterior* system—I am inside an "its" or a network of "its"—I am inside a local ecosystem, inside a town, inside a galaxy, and so forth.

But *inside* my *interiors* are feelings, awareness, values, and identities, as well as shared interiors, including you as a friend, wherever you are physically located. We could both be part of the identical biosphere and still not be friends—and you might have a nice ecological consciousness and I have a mean egocentric consciousness, both supported by the same ecosystem. As we have been saying, *cultural membership* and *social strand-ship* are located in different dimensions of being. Those dimensions do indeed arise together, but not in physical space; they arise together in the AQAL matrix, whose interior dimensions do not rigidly line up with gravity, trees, towns, or rocks. That is why reducing the world to social and eco systems is to kill culture and consciousness.

Here is the next step of difficulty in an integral calculus of native perspectives. Whereas the outside of my exterior includes other exteriors (such as my house, my town, my local ecosystem, etc.), the outsides of my interiors involve *other interiors.*

We already saw the example of "interior objects," which are outside of my I but still in an interior space. Here is another example: phenomenologically, if I look around my interior spaces of awareness, I will find that outside of my "I" are other "I's" in my culture—other people or cultural members (such as second-person holons—you's or thou's) who can potentially share the same meaning, understanding, and cultural contexts with this first-person holon (or I). When I view these other people in a third-person mode, I can indeed see their bodies or organisms existing "out there" in the exterior or sensorimotor world; however, I cannot see, feel, or find their interiority "out there" in the physical world, because interiority appears or arises (or is enacted) only when I adopt a first-person mode of awareness. After all, out there in the exterior world is that guy, who only speaks Serbian, standing next to you, my long-time friend. I can see *both of your bodies* in the exterior world, but I can only see or understand *your interior* or *your*

"I" as part of this inside-we, so that "you," but not "him," are someone that I feel or know from within the hermeneutic circle. "You," *as a you*, cannot even be seen "out there," which houses only the third-person aspects of our togetherness. Only third persons exist or stand forth in the exterior or sensorimotor world; first persons exist or stand forth only in the interior worlds.

When any "you" and any "I" have a possibility of reaching a shared or mutual understanding (an intersubjective or cultural event of the LL dimension), then "you" have been converted from an alien or foreign "it" or third-person object (which is merely an outside of my exterior) to a second-person entity, a bearer of consciousness and meaning with whom I am now beginning some sort of communication, dialogue, intersubjective exchange, shared prehension, or mutual feeling.

You have therefore become a second-person holon who has entered my intersubjective field and thus is no longer an outside in my exterior space but an outside in my interior space— which means, a holon in my interior space that I am beginning to orient to as another I, as a sentient being with whom I have not yet shared some sort of meaning or value, but with whom I might. I can therefore start speaking to you directly (which is the definition of "second person"— "the one spoken to"). At that point—and before we have actually entered into communication— you are outside of my I and also outside of any immediate "we" of understanding—so we remain Other to each other. But if you and I start communicating and reach some sort of mutual understanding, then both "you" and "I" have become part of a "we"—a hermeneutic circle—a circle of *shared insides* of the *interior* spaces: some aspects of "you" and of "I" are now inside a we-boundary. Outsides of exteriors ("it") have become outsides of interiors ("you") which have become shared insides of interiors ("we")—there is thus a "fusion of horizons" (so that they are no longer Other to each other), and a mutual prehension arises in the midst of previously alien encounters.

nThus, from an outside-exterior "it" (or totally alien person to be instrumentally treated as an object or third-person it), to an outside-interior "you" (or second-person sentient being with

whom I seek some sort of mutual contact via a shared horizon), to a "thou" in a "we" relationship (or shared insides of our interiors)—in short, from "it" to "you" to "we"—such is the progression of care and compassion across boundaries of increasing encompassment, in this mysterious miracle of a "we" residing in the heart of the Kosmos.

What all of this means will become clearer as *we* proceed, I hope.

Summary

We began this excursion by outlining 4 of the main perspectives embedded in natural languages—I, we, it, and its (fig. 1). Each of those holons can be looked at from its own inside or its own outside, giving us 8 major indigenous perspectives associated with any actual occasion (fig. 2). These 8 indigenous perspectives turn out to be the vantage points from which 8 of the most basic and significant paradigms or modes of human inquiry have been launched—such as phenomenology, hermeneutics, empiricism, autopoiesis, and systems theory (fig. 3).

We then noted that the two most influential forms of systems theory—autopoiesis and complexity—claim to cover the "inside view" and the "outside view" of phenomena, but actually cover only the insides and the outsides of exteriors, not the insides and outsides of interiors. In other words, both autopoiesis and complexity theories are third-person paradigms (or modes of inquiry). When I engage systems theory as a social practice, I am highlighting and bringing forth some of the third-person dimensions of being-in-the-world. The view from the inside of those third-person occasions is called "cognitive," "enactive," or "autopoietic," and the view from the outside of those third-person occasions is called "systems," "rational," or "complexity" (among others).

As important as those modes of inquiry are, they clearly neglect and marginalize the interior indigenous perspectives of first- and second-person occasions. The best of the autopoietic theorists, such as Varela, have recognized this and have moved to incorporate first-person realities into a more integral endeavor with such paradigms as "neuro-phenomenology,"

which, as the name itself suggests, is a union of third-person ("neuro-") and first-person ("phenomenology") modes. We will look at these more inclusive attempts at length in a later excerpt (Excerpt E, "Nature's Web").

What we need to do in the remainder of this excerpt is to continue to look more closely at the neglected first- and second-person perspectives that are belatedly being acknowledged by these theorists. Before we look at autopoietic organisms and self-organizing systems—or how a third-person "it" joins with other "its" to form a social system—we need to listen more attentively to the contours of the interior dimensions as they present themselves to caring ears, and not be in such a rush to view them through the lens of exogenous perspectives.

What are the contours of these phenomenological domains—these "event horizons"—and what paradigms or social practices have been used to most effectively enact, bring forth, illumine, and disclose these domains? How can we honor, acknowledge, and incorporate these paradigms into new meta-paradigmatic practices and metatheories to help usher in an Integral Age at the Leading Edge….

It is to these different phenomenological worlds that are spontaneously arising within a Kosmos of indigenous perspectives that we may now turn.

Part II. ZONE #1: *The Insides of the Interior*

Overview

The basic theme of this presentation is that any occasion or event can be acknowledged and addressed from the inside and the outside of the interior and the exterior in singular and plural forms—a bit of a mouthful summarized in figure 2.

Each of these 8 dimension-perspectives are, in essence, an "**event horizon**," a phenomenological worldspace, a horizon of events which itself is enacted by the subject

perceiving/touching/knowing it. (More technically, a worldspace tetra-enacted by the holons prehending it, a probability space of finding certain events in certain locales of the AQAL ocean.)

An event horizon means, for example, that if I assume a first-person mode of awareness (if I manifest my existence in the mode of a first-person perspective) and then, in that mode, explore the events or phenomena that arise or manifest themselves to that stance, what does that inquiry disclose or bring forth? Event horizons include, for example, the multifarious phenomena within an "I," within a "we," within an "it," as well as outside an "I," outside a "we," outside an "it," and so on.

These 8 event horizons or worldspaces each have a different landscape. But these landscapes are by no means merely geographical, physical, sensorimotor, or exterior landscapes, which are event horizons that occur only when I manifest my being-in-the-world in a third-person mode and then describe the landscape thus enacted. In other words, when my existence appears in a third-person mode, then the world around me likewise appears in a third-person mode: the world is spread out "before me" as a series of interrelated patterns, systems, and events, all correlatively appearing in their third-person or "it" mode, their topographical mode, their geographical, systems, geo-logical mode—just like me, since together we are tetra-enacting a topographical world of the great web of interlocking surfaces.

But when I manifest my being-in-the-world in a first-person mode and then describe the enacted landscape, a different event horizon is made available, a different worldspace appears—a world with different phenomena, different boundaries, different rules, different contours— contours that do not fall at the speed of an apple, take up any physical room, or move according to geological and topographical currents. I am neither perceiving this world nor creating this world, but both. All of these 8 event horizons are tetra-enacted by the occasions occurring together in any opening or clearing within that horizon. (For AQAL metatheory, these event horizons represent the probability of finding a particular occurrence in a particular region of the AQAL matrix disclosed and brought forth by the perspective enacting the occurrence.)

The 8 indigenous perspectives thus enact different (but tetra-related) event horizons—phenomenological worlds or zones, or what I will sometimes call "**hori-zones**"—horizons of awareness within which various types of occasions arise (or can arise). These 8 indigenous perspectives mark "phenomenological hori-zones," zones of experiential enactment and disclosure, brought forth in part by the subjects perceiving them (tetra-enacted). There are I-spaces, we-spaces, it-spaces, its-spaces—and a hori-zone is the apprehension of those events from within or from without their own self-defined boundaries.

A hori-zone is a space of possible experience for sentient beings in general. A hori-zone is a meeting place of first, second, and third persons, as they mutually enact each other. Prior to perception is perspective, and a hori-zone is a swatch of the AQAL matrix scoped and felt by a particular play of native perspectives. The various hori-zones are some of the ways the Kosmos feels itself, moment to moment, nakedly.

There are many ways that these 8 indigenous perspectives can be simplified and grouped for discussion, the most common of which is simply the four quadrants themselves (fig. 1), which highlight the interiors and exteriors in singular and plural.

But we can also group these native perspectives as the insides and outsides of the interiors and exteriors. This is also a very useful grouping—and one that we will often use—because it highlights the important difference between the nature of insides (which can be known only by touch, and are intimate) and the nature of outsides (which can be seen at a distance, and are distancing).

With reference to figure 2, we will be discussing the insides of an I and a we, which together we will call **zone #1** (the inside-interiors). The next excerpt looks at the outsides of an I and a we, or **zone #2** (the outside-interiors). Later excerpts are devoted to the insides of an it and an its, or **zone #3** (the inside-exteriors), and the outsides of an it and an its, or **zone #4** (the outside-exteriors).

We begin this walk through our native perspectives by entering zone #1.

THE INSIDE FEEL OF THE INTERIORS: Knowledge by Acquaintance

The insides of the interiors means *the view of an interior holon as seen from its own insides* (i.e., as seen from *within* an **I-boundary** or a **we-boundary**). This can occur in the singular (the inside of an "I") and in the plural (the inside of a "we").[12] Here are some quick examples of each.

Singular: The Insides of an "I"

I can attempt to feel the interior world from within, i.e., directly prehend it myself. This is a first-person experience of first-person experience, which most obviously happens when I feel or prehend my own interiors in the moment of their arising. This is an example of the "inside" of an interior occasion.

Natural language embeds this hori-zone as both first-person singular subjective (or "I") and first-person singular objective (or "me"). We say things like, "I am aware of myself," "My understanding of my own motives is that I was not acting out of jealously," "I am hungry," "I know me," and so on. But many forms of first-person apprehension are not reflexive—they are not divided into subjective and objective—not "I know me" but "I feel I"—or simpler still, just a non reflexive I-feeling, a type of self is-ness. This is rudimentary prehension at its simplest.

Representative Methodology: Phenomenology

The study of the occasions that arise in an I-space is called **phenomenology**. Phenomenology, as a specific philosophical school, was founded by Edmund Husserl; as a general movement it has, needless to say, numerous variations; and as a general disposition, phenomenology is really as old as the human interest in consciousness itself, whether we call it introspection, meditation, contemplation, or simply feeling.

Charles Peirce, America's greatest philosopher and founder of pragmatism, was also a great proponent of phenomenology, which he called "phaneroscopy." The "phaneron" is a term he coined to refer to "the total content of any one consciousness, regardless of its cognitive value."[13] Phaneroscopy, then, is simply a survey of the phaneron, the total contents of any consciousness.

Peirce, known for his incredibly sophisticated logical and linguistic studies, would nevertheless conclude that "the whole content of consciousness is made of qualities of feeling. To be conscious is nothing else than to feel."[14] (This is decades before Whitehead.) Of course, when I feel my interiors, I can feel ideas, feel concepts, feel feelings, feel images—I don't just feel feelings. The point is that interiors all share an immediacy of presentation. This simple immediacy of feeling, Peirce called a "pure Priman," a primary given in consciousness that is "indecomposable"—cannot be broken down into anything simpler. Consciousness also discloses Secundans, Tertians, etc.—but the pure Priman is the presence of pure presence in this moment.

(Peirce may be forgiven his neologisms; he always delivered them with wit. William James borrowed so heavily from Peirce's pragmatism that Peirce changed the name of his system to pragmaticism, "a term so ugly as to discourage theft.")

Phenomenologists of virtually all schools point out that objects in the sensory world never present themselves with any sort of certainty or completeness; at best you see only aspects of sensory objects (e.g., you can only see one side of a tree at a time). But mental objects (e.g., the image of my dog Chester) present themselves directly and immediately. When I say, "I am immediately aware of that tree over there, and I am certain of that," what I am really aware of is not the whole tree—I would have to walk all the way around the tree to see all of it—but rather the image of this side of the tree, and that is what I know directly and immediately: in other words, mental objects, not sensory objects, are immediate and undeniable. When a mental object presents itself, it simply presents itself, and there is no denying that presentation. Last night I dreamed I was eating dinner at restaurant in Paris, and while I was dreaming, those images

presented themselves with immediacy and undeniability—those images, *as images*, were absolutely real to me.

The question is then, does a mental image or object correspond to something "real" in the sensory world? Last night, was I *really* in Paris? Here phenomenologists make an important contribution, which is generally called "bracketing"—namely, in studying mental phenomena as mental phenomena, we must bracket whether or not they or their referents "exist" in the sensory world; they must be studied in themselves, as they appear, or as they immediately present themselves to consciousness, a presentation that *in itself* is direct and undeniable. These mental objects exist in a mental space, in a space of consciousness (e.g., they exist in the phaneron), whether they do or do not exist in a sensori-physical space.

Phenomenology is above all the study of consciousness, whose presentations are direct and immediate; and secondarily, how these presentations relate to each other and to the sensorimotor world.

Beyond those general points of agreement, phenomenologists strike out in different directions. For AQAL metatheory (which adjusts the pronouncements of any particular paradigm in light of the total web of other paradigms, trimming those pronouncements only under warrant of nonexclusion, enfoldment, and enactment), phenomenology in general is a paradigm that has adapted most centrally to the study and elucidation of the insides of interior holons, inside-interiors that more clearly announce themselves when competing claims for "existence" are bracketed (this is what Peirce meant in the above quote by "regardless of its cognitive value"—i.e., regardless of whether it is "true" according to sensoriphysical dimensions).

Bracketing is simply the nonexclusion principle applied to interior domains, where it asserts (correctly, I believe) that sensorimotor paradigms have no right to infringe on the reality of the phenomena brought forth and illumined by other paradigms and practices, including interior paradigms and practices, which all sentient beings are engaged in anyway whenever they feel their own feelings.

For AQAL metatheory, a *phenomenological space* is simply the sum total of phenomena that can be (tetra)enacted by a subject bringing forth that particular space. This a very general notion, applying, for example, to physical space, emotional space, mental space, spiritual space, as well as an I-space, a we-space, an it-space, and so forth. The whole point, of course, is that all spaces are tetra-spaces, or more accurately, all spaces are AQAL spaces: any given space, such as an emotional space, is actually a space whose dimensions include quadrants, waves, streams, states, and types (among other perspective-occasions).

But the important point about any phenomenological space—a point that sets an AQAL use of this concept apart from that of the phenomenologists—is that a phenomenological space is an indigenous perspective that is embodied, embedded, enacted, and enfolded in other spaces, the sum total of which are represented as the AQAL matrix. Terms such as "perception," "awareness," "feeling," and "consciousness" fail to indicate that those items are always already perspectives. There simply is no such thing as "perception" anywhere in the Kosmos, for every perception of a sentient being is always already situated in relation to other sentient beings, and therefore every perception is actually housed in an indigenous perspective. Perception, awareness, consciousness, feeling—none of those items exist per se, and those who posit, for example, feelings as primary, are really positing low-order abstractions.

Perceptions, as opposed to perspectives, particularly embed and hide the modernist prejudice of agentic selves free of communion intuiting universal abstractions, a game peculiar to young, modern, male humans. On the other hand, the privileging of perceptions is also a very old prejudice, found in everything from Buddhism to Whitehead to conventional eco-philosophies, as we will continue to see. Even postmodernism's "interpretation" secretly privileges perception, in that its cultural relativity is itself a relativity of perceptions, not perspectives (which are, in fact, taken for granted and unexamined).

This means that the "universals" presented by phenomenologists, such as eidetic intuition and knowledge of essences, might indeed be universal, but nonetheless are never presented

outside a perspective. The universal "whiteness," for example, may indeed be a universal, but it is still a third-person mental object perceived by the first person of the phenomenologist. I am not saying there isn't a universal of whiteness; I am saying, even if so, it never arises outside of a perspective. This is why, for AQAL metatheory, the Kosmos is built of perspectives, not perceptions, and why phenomenology has to take its true-but-partial seat at the integral roundtable.

Integral Math

If we call this first event horizon a "first-person experience of first-person realities," we could represent it as (**1p x 1p**), where "1p" means "first person." You, as second person (**2p**), also have your own first-person experience, which, with reference to me, would be: **2p(1p x 1p)**—which means, your second person has its first-person experience of its first-person realities. If my perception of your first person, which can be represented as 1p(1p) x 2p(1p), matches your perception of your first person, 2p(1p x 1p), then we have mutual understanding:

$$1p(1p) \text{ x } 2p(1p) = 2p(1p \text{ x } 1p)$$

That is the beginning of an integral mathematics based not on variables but on perspectives. For those interested, I will pursue this mathematical form of the integral calculus in **Appendix B** and a series of ongoing endnotes, suggesting how a Kosmos is constructed of perspectives, not things or events or perceptions or processes. Honest, you don't have to follow this; it is simply a notional system useful for reminding us to honor all primordial perspectives; if mathematical notation is not your cup of tea, the essentials of these perspectives are represented in figs. 2 and 3.

"Integral calculus," as indicated earlier, does not specifically apply to its mathematical forms, but simply to any mental operation or "calculus" that conscientiously attempts to include as many perspectives as possible in any approach an occasion. Thus, "integral calculus" simply means an honoring of all indigenous perspectives, which is how we will mostly use it.

But it can be applied specifically to mathematics, with rather intriguing results, as suggested in Appendix B. If the universe is composed of sentient beings or holons (all the way up, all the way down)—and not merely things nor events nor processes nor systems—then the "stuff" of the universe is perspectives, not mass nor energy nor force nor feelings nor perception nor consciousness (all of which are always already a perspective). Integral mathematics, therefore, does not abstract relations from objects, but from the perspectives of sentient beings, and its "operations" fall within the matrix of indigenous perspectives. The result is still an abstract system, but a system that is always embedded in the realities of sentient beings, and hence a system that stays much closer to the real world, even in its abstractions. Moreover, if its terms (which include 1p, 2p, and 3p) are all collapsed to merely third-person objects, typical "flatland" mathematics is generated. Well, as I said, these semi-abstractions will be pursued in Appendix B for those so inclined. The only point we need take with us right now is that the relational perspectives native to sentient beings (as summarized in fig. 2) give rise to the major methodologies of human inquiry (as summarized in fig. 3), and an integral mathematics can be constructed based on those primordial perspectives. As far as I can tell, this primordial mathematics appears to be the root mathematics from which all others are abstracted abstractions.

Tele-Prehension

Hori-zone #1, then, simply refers to whatever is arising in consciousness, whether it has a referent in the sensory world or not. A representative methodology of zone #1 is phenomenology (or, as Peirce would say, phaneroscopy, a "survey of the phaneron," a seeing and feeling of the content of consciousness). The most common singular version is, whatever is arising in an I-space; the most common plural version is, whatever is arising in a we-space.

We left off the discussion at the singular version—my own immediate awareness of my interior, a type of "I feel I," as well as more complex versions, such as, "I am aware of various interior objects, like the dream where I was at a restaurant in Paris."

Can this interior feeling-awareness occur in any sense when it comes to others? That is, can I directly prehend the inside-interior of another subject? Can one "I" know the insides of another "I"? Can I feel your feelings in any direct way? Or know your thoughts in any direct way?

In most cases the answer, of course, is "no." However, there are at least three senses in which we might be able to speak of something like an immediate inside-prehension of another holon's interior. Whether these exist or not, it is important to recognize that, if they did, they would fall into this general category (i.e., hori-zone #1, an interior reality seen from within its own boundaries). We already know that one type of zone #1 exists (i.e., my own prehension of my own inside-interior); we are now asking if an I can prehend the inside-interior of another holon? All three of the following instances are a little bit "far out"; if the following instances seem incredible, then the major example of zone #1 (i.e., my inside-prehension of my interior) is the only one we need in order to carry integral methodological pluralism forward in our metatheory.

Psychic phenomena. The first case of one "I" knowing the insides of another "I" is some sort of psychic phenomena, such as telepathy, which is basically "prehension at a distance" (*tele*: far, distant; *pathy*: feeling or perception). I believe the evidence for the existence of various types of psychic events is very compelling, and I will accept them as provisionally the case. Still, this is not my main focus, so we will move on to the two other possibilities.

A transcendent Self. The second is a more purely spiritual sense, in which there is but one Self ultimately inhabiting the interiors of all holons, so that all holons share an immediate presence of Presence (i.e., the immediate nowness of all prehension or awareness, in all holons, is instantaneously felt by the same Spirit—as Erwin Schroedinger, the cofounder of quantum mechanics, put it, "Consciousness is a singular, the plural of which is unknown." In my opinion, that is the ultimate origin of intersubjectivity: namely, the same nondual and nonlocal Subject inhabits all subjects, such that an instantaneous intersubjectivity from within connects holons

prior to any exchange of any sort between holons. Still, this is an enormously complex issue, which I will address in an endnote).[15]

Harmonic empathy. The third version, which is perhaps the least objectionable to the orthodox (and therefore one I will often use), is something like the interior equivalent of exterior resonance or vibration. If you strike a note on one piano, the same string on a piano next to it begins to vibrate, an instance of exterior harmonic resonance. Harmonic empathy is the interior equivalent between two sentient beings: a type of felt resonance or mutual prehension—an immediate, nonreflexive, intersubjective presence or resonance with another holon at a similar level of depth. When in the presence of another holon of similar depth, I am, so to speak, in a dual field, whose exterior (or Right Hand) is mass-energy resonance or surface connections, but whose interior (or Left Hand) is feeling-resonance and interior co-presence. Of course, all sorts of other types of intersubjective factors contribute to this felt resonance (particularly various types of communicative exchange); but in its purest sense, it is a type of harmonic empathy with the insides of the interior of another holon at a similar level of depth, a resonance that occurs without exchanges, just direct co-presence.[16]

For simplicity's sake, I will refer to all three of these "direct feelings of another's feelings" as "**tele-prehension**," whether that refers to psychic phenomena, spiritual nonduality, or harmonic empathy (although I will especially emphasize the latter two).

Plural: The Insides of a "We"

Such is the inside of the interior of an individual or singular holon—anything seen or felt from within an I-boundary. The inside of the interior plural is simply anything seen from within a we-boundary.

Specifically, the inside-interior of a collective holon is the view from within the boundary of a "we" (or the inside view of a first-person plural phenomenological space). What must happen for a first-person "I," a second-person "you," or a third-person "him" and "her," in order

to *understand each other*, or feel each other, or share any sort of horizons at all? What happens in order for any sentient beings to be able to say, or simply feel, or even vaguely intuit, that they belong to a "we"?

Do you believe that geese have feelings? I do. What happens when geese fly together in a beautiful V-formation in the sky? Obviously they are coordinating their *exterior* forms and they are modifying their *exterior* behavior so that each individual bodily form (each "it") is part of the collective V-formation (the social form or "its"). In other words, each organism or "it" is aware of other individual "its" (other geese), and they are behaving so that each "it" is part of (or inside) a social system of "its." The geese are clearly registering and coordinating with each other's exteriors.

But if they also have *interiors*—impulses and sensations and proto-feelings—aren't they in *resonance* with those interiors as well? If they *share* exteriors (which clearly they do) and if exteriors make no sense without interiors (which they don't), mustn't the geese share interiors as well? If there is inter-exteriority in the flock, isn't there some sort of inter-interiority as well? Not full-blown, self-reflexive, linguistic intersubjectivity, but similar sensations in the feeling space that they share when they fly together?

Personally, I believe that geese are sentient beings and that they *feel together* when they fly, and that is why they fly in the first place. I am not denying that they have exterior physical and biological reasons for doing so. I am simply saying that I believe that all exteriors have interiors, and I believe that all shared exteriors therefore have some sort of shared interiors. Exteriors without interiors is like "up" without "down" or "north" without "south."

If you don't believe that geese have interiors (you insensitive slob, you), then you should probably stop saying they have exteriors, because you are simply talking nonsense at that point. But, in any event, for AQAL metatheory, and absent evidence to the contrary, all holons have a Lower-Left quadrant, an inter-interior, or inter-proto-interior, or inter-subjective dimension—all the way up, all the way down. If geese register each other's outsides (and they must in order to

fly together), then that *same event* felt from within, not merely seen from without, is called the Lower-Left quadrant.

But whatever you think about geese, we can move directly to the human domain and make our points with less fuss. The "inside-interior" view of a collective holon is simply whatever you and I see whenever we use the term "we."

This "we," of course, is a total and complete mystery (whether it appears in geese, in wolves, or in you and me). Like all interiors, you simply have to be there, in person, in immediate presence, and look, in order to see what a particular "we" is seeing (or in order to feel what we are feeling). As will often be repeated, all interiors are known by acquaintance, not description—you have to **be** there, **in person**—which means, in first-person singular or first-person plural.

(After all, the "third person" is somebody or something we are talking about, so of course a third person, as third person, can be adequately known by description or talking about. But first-person realities cannot be known by talking about, only by being, only by direct acquaintance, by immediate awareness as the first person who is speaking, not being spoken about.)

In this case, the point is that two interior "I's" that are initially *outside* of each other can, miraculously, be *inside* of an interior "we"—not inside the same social system, ecosystem, or *exterior* collective, but inside the same *interior* collective, inside a circle of recognition and understanding and shared meaning horizons, whose contours, we have seen, always overlap with collective exteriors but cannot be reduced to them, shared interior contours that are evoked whenever you and I and use the word "we."

Individual (I/It) and Collective (We/Its)

Let's pause here and notice a point whose importance cannot be overestimated. We previously noted that no Left-Hand occasion can be reduced without remainder to its Right-Hand

correlate—no "I" can be reduced to "it," no "we" can be reduced to "its." The simplest reason is that perspectives are, by their very nature, not interchangeable. Of course, I can stand in one perspective and claim that I am giving the "real" factors operative in all the other perspectives— for example, "All first-person realities are really third-person processes"—but that is simply violence in its purest form. The same is true for the upper and lower quadrants. No collective can be reduced to component individuals, nor can the collective itself ("we" or "its") be treated as an individual ("I" or "it").

The latter notion—that a society of organisms is not itself an organism, or a system of individuals is not itself an individual—often causes a great deal of confusion, so let's look more closely at the relation of an individual and a society. For this discussion, an "individual" means any holon in the upper quadrants (an "I," an "it," or both together—an "I/it"—which is how they exist in the real world); and a collective, group, society, or system means any holon in the lower quadrants (a "we," an "its," or both together, "we/its," which is how they exist in the real world).

Traditionally, there have been two major views of the relation between an individual being and a group of individual beings.

(1) The first view is that the individual is the fundamental reality. Groups or systems of individuals do not bring anything to the table that is not present in individuals alone, or, at the least, groups or systems or societies do not have any rights above and beyond the rights of separate individuals. This is the "individualistic" view (which in its strong form amounts to a type of atomistic individualism). Paradoxical as it sounds, this view believes that only wholes exist, not parts. That is, the whole individual is an end in itself, and it is NOT a part of any larger whole. The individual is a whole, period, not a whole that is a part of some larger whole. In short, when it comes to individuals, they are wholes, not parts.

(2) The second view is that the individual is indeed a part of a larger whole or compound aggregate. The group, society, or system is the fundamental reality, and individuals are basically

strands in this web, or parts of this system as a whole, and gain their meaning from their place in the whole system. In and of themselves, individuals have no rights, or at the least, individual rights are subsumed by the rights of the whole. In this view, society itself is often viewed as an organism or superorganism. As such, the individual members of society are like limbs or parts of the superorganism. Accordingly, this view is often called the "organismic" view.[17]

Where the individualistic position maintains that individuals are wholes in themselves (and not parts of something bigger), the organismic view takes the opposite stance—individual beings, from atoms to ants to apes—are primarily parts, not wholes, and they are parts of the great system, strands in the Web, or limbs of the superorganism, which itself is considered the primary or fundamental whole (e.g., the state, the biosphere, the ecosystem). As such, it is the society, system, superorganism, or Web that has the most fundamental rights, and the rights of all strands of the Web (or all parts of the superorganism) are therefore subservient to the rights of the Web itself. In this view, individuals are fundamentally parts, not wholes.

Both of those views historically have had major and widespread influence. The Greek *polis* and the Roman *imperium* viewed societies on the organismic model—and right up to today with James Miller (*Living Systems*), many forms of systems theory, the idea of a great Web of Life, Gaia as a superorganism, and so on. Most forms of eco-philosophy subscribe to the imperium view.

Traditional liberalism, on the other hand, has championed the opposite end of the spectrum—individuals have certain rights that cannot be trumped by the collective. The Bill of Rights of the American Constitution is a classic statement of the inalienable rights that no society can take away from an individual without a due process of elaborate checks and balances. In its extreme form, this view tends toward an atomistic individualism and strident libertarianism.

Most sophisticated theories of the relation of individual and social have attempted to steer a course between those two basic stances, taking the more enduring truths from each and jettisoning their absolutist claims (or, as I would put it, jettisoning the points at which they violate

the nonexclusion principle), and this would, of course, include any integral approach attempting to honor the truths of both. Exactly how to do so in a satisfactory fashion has, however, proven more difficult than might be imagined, and only recently have certain solutions begun to suggest themselves.

Two Different Types of "Parts" and "Wholes"

Here's an overall example of what is involved. People commonly say things like, "My sister and I are part of a very close family," or "We are all part of the same biosphere," or "We are a part of the local community." That's one type of "part-ness," if you will: being a part of a community, system, or network. We might call this being a *member* or a *partner* in a wider system or assembly of other partners.

Another "part" is like this: atoms are parts of molecules, which are parts of cells, which are parts of organisms. Here, "part" means an actual *ingredient* or *element* of a compound.

There is a obviously a big difference between being a partner and being a part. To literally be a "part" means to be a component or element that is 100% subservient to the compound of which it is an ingredient. An atom is a part of a molecule, which means that it is fully contained in, and governed by, the molecule. If one holon is literally a constitutive part of another holon, then the first holon is a subholon of the latter and is basically controlled by it.

For example, if my dog Daisy Mae (who is Chester's sister) decides to get up and walk across the room, 100% of her cells, molecules, atoms, and quarks completely obey her command and move across the room with her. There is a not a democratic vote to see which cells go with her and which cells don't; 30% of her cells don't remain behind; half of the cells don't go one way and half another. Daisy's intentionality 100% subsumes the intentionality of her subholons, and they dutifully obey her commands without question.

No society, not even fascistic, has that degree of control over its members, because members are not literally units in a single huge organism. A society does not have a sensitive

center, nor a central "I" awareness, nor a single intentionality; it has lots of "we" awareness, but no dominant "super-I" that is aware of and controls all its "parts." A social holon sometimes has one part (like a king) trying to control other parts (like you and me), but not only do such social systems strike us as pathological, even so, the king does not do this by instantaneous intentionality that directly makes you and me jump at a distance. There is simply no such fashion in which individuals are in all ways to societies as cells are to individuals.

The point is that an organism is not a part of a society in the same way that a cell is part of an organism. These are two different types of "parts" and "wholes": two different types of "wholes" (a whole individual and a whole system) and likewise two different types of "parts" (constitutive components and participating partners).[18] Even those philosophers who have taken a generally "organismic" view—from Herbert Spencer to Alfred North Whitehead—have emphasized the many important differences between individual organisms and societies/systems, differences we will continue to explore as we go along.

(Of course, in one sense, an individual organism is a system, because "system" in general simply means "a functional whole"; but this individual system has a center of prehension, whereas a collective system does not—as Whitehead put it, the individual has a "dominant monad," whereas societies categorically do not—which is why "system" usually means the collective system, although it can apply to systems in an individual organism. The point is simply that systems in an individual often have a central agency, but collective systems rarely do—and if they do, they become what, by definition, is called an "individual"—which is why "systems" is usually used to refer to communal, societal, or collective holons, which is generally how I will use that term, although context will tell. A system or collective holon is indeed "a functional whole," but, as we will see, its control mechanisms—or how it establishes its wholeness—differs fundamentally from those of individual holons.)

As we saw, the strong organismic view maintains that a system or society is an organism or superorganism composed of its members as if they were limbs of a single body. This is the

imperium view of systems, a view also referred to as the leviathan view. The word *leviathan*—which etymologically means "very large animal," "titan," or sometimes "monster"—has been used by writers (most famously Thomas Hobbes) to mean that the state, as leviathan, must have supremacy over its subjects (in order to curtail their selfish ways); and it also applies generally to any systems view that sees the whole system as the primary sovereignty, or the fundamental reality, and all parts of that whole are therefore primarily strands in a web, not members or partners in a coalition.

But we have seen that there are no actual leviathans anywhere in existence. Individual holons have something like a sensitive center—a locus of prehension—or an individual subjectivity, agency, and intentionality. The more developed forms of an individual holon use the word "I" and can take a first-person singular perspective on events. Collective holons or systems do not have a single super-I, super-will, or super-agency; they never use the word "I"; they do not 100% subsume the agency of all their members; and they have no sensitive center—in short, there is no social leviathan anywhere in concrete existence. There are plenty of social systems, but no social leviathans.

On the other hand, there is no individual anywhere in existence, either. All holons have (at least) four dimension-perspectives (quadrants), none of which can be reduced to the others. The individual holon possesses properties that cannot be fully derived from the collective holon with which it is enmeshed. Likewise, the collective holon (e.g., ecosystem, social system, cultural habitus) possesses patterns, rules, and networks of exchanges that cannot be reduced to, nor derived from, its individual members. These members are not merely strands in a web, cogs in a machine, or bricks in a building (the leviathan view); neither are they atomistic individuals who are libertarian islands unto themselves in a sea of other aliens; but rather they are all interacting partners, members, or associates in networks of intersubjective and interobjective exchange. Sociocultural holons and collective systems often use the word "we," but they never use the word "I."

I and We in an Ecosystem

Let's take a simple example and do a "walk-through" using a calculus of indigenous perspectives to highlight some of these important distinctions.

Let's take a local ecosystem that, for simplicity's sake, we say is composed of life-forms up to bacteria. This ecosystem itself does not have single sensitive center or single "I," although all of the bacteria themselves do have a sensitive center (an "I" or proto-"I"). Whitehead called this "I" or sensitive center a "regnant nexus" or "dominant monad," and his point is that individual organisms have it, systems do not.[19] In terms of the ecosystem's relation to the individual bacteria, the ecosystem is not itself a Daisy Mae: the bacteria are not limbs in a leviathan, parts of a big Web, elements of a compound, or subjects in an imperium, but are partners or members of a social system (the local ecosystem), a system that cannot be reduced to its individual members, but neither is it a superorganism that swallows its members whole.

A four-quadrant view of that particular ecosystem, honoring each of its indigenous perspectives, might go like this: in reference to the bacteria, in the Upper Left is a individual bacterium looked at from within, as a living being, as a bearer of some sort of sentience, rudimentary experience, proto-"I," or prehension. However rudimentary, each bacterium has a first-person prehension that is its own spark of awareness, and that first-person reality cannot be captured, or even hinted at, by third-person objective terms, concepts, or theories. The bacterium, within the event hori-zone of its immediate sensation, is not a third-person organism but a first-person feeling.

On the other hand, each bacterium does indeed have aspects or dimensions of its being-in-the-world that can be effectively viewed or felt as an object or an objective occasion, not only by humans, but by other bacteria. As one bacterium approaches another bacterium, they each have a first-person prehension or sensation, and they each also register the other as an approaching or "objective" entity (an object in the Whiteheadian sense, a third-person "it"). The

objective aspects of the approaching bacterium are particularly signaled by chemical messengers, rudimentary tropisms, and molecular sensing. The simple point is that each bacterium has an interior sensation, but also an exterior registration of other exteriors (i.e., UL and UR, respectively).

The *sum total* of those *exterior* registrations and interactions is what we call a "system" (which is the Lower-Right quadrant: the whole system or network of interobjective exchanges)—in this case, the local ecosystem, which includes, in this simple example, numerous life-forms up to bacteria and their limitless number of mutual interactions. In other words, each individual bacterium—when viewed in a third-person or exterior mode—appears as an objective organism that is registering and interacting with other objective organisms, and the sum total of those interactions, when also looked at in a third-person or exterior mode, appears as an objective system or network of mutually related interactions. In short, each *object* is involved in an *interobjective* network, a series of exteriors that are mutually related and mutually interdependent.

At this point, there are two ways to conceptualize those exteriors—and here we come back immediately to the autopoietic and the systems/complexity views. The autopoietic view attempts to suggest (or reconstruct in third-person terms) the types of exteriors that the *bacterium itself* is actually registering or enacting, while the systems approach stands back and takes the "view from 50,000 feet," which, although NOT a view present in the biological phenomenology or cognition of the bacterium, is a view that some humans take and is useful in that regard. (Those two approaches were the inside view and the outside view of exteriors, which we will later explore in more detail as zones #3 and #4). For our simple four-quadrant view of this ecosystem, we will mostly use the systems view (at the end of this example, we will return to autopoiesis and fine tune these hori-zones).

Taking a systems stance, when we view bacteria not as first-person sentient beings but as third-person objective organisms, and we do so from our own level of rational cognition or higher (i.e., from orange or higher), then we find that organisms are inter-related in networks or systems

of mutual exchange. That is, a paradigm or social practice of systems observations conducted by the orange probability wave brings forth, enacts, and illumines networks of objective organisms—it brings forth the systems or network-nature of third-person plural dimensions of being-in-the-world. (Because this rational or systems view is disclosed only at orange or higher, it is not part of the cognition of the bacteria themselves—nor of the archaic, magic, or mythic worldviews.)[20]

The simple point is that this systems paradigm or practice discloses that each organism is involved in various social systems and ecosystems (each object is a part of an interobjective network, where "part" means partner or member, not element or ingredient). The various organisms are linked together into networks, not because they are limbs in a leviathan, but because they share objective intersections, intersections that are necessary for the life and existence of each member of the ecosystem. These intersections include, above all else, extensive systems and *networks of communication* that link all organisms in any system (at all of their various levels).

As we will see in the following sections, Niklas Luhmann caused a profound revolution in systems thinking when he pointed out that **systems are not composed of organisms or individuals, but of communication**. In other words, the "ingredients" or "component parts" of a system are not individuals (that would be a leviathan) but the networks of contacts and exchanges between all of them. The sum total of these *exchanges* or *intersections*, at any given locale, is the "system" of which each organism is a member, not a part. Organisms are not parts of a Web, but their transactions are.

Luhmann's conclusion is exactly the conclusion arrived at using an integral calculus of indigenous perspectives; but, as I will try to show, an integral calculus also discloses that the same is true in the Lower-Left quadrant—namely, that networks of *intersubjective* exchange help to constitute cultural backgrounds of "we," just as networks and systems of interobjective exchange constitute their social correlates ("its"). Luhmann captures many of the essentials of

social networks, but not cultural networks. That is, where social systems can effectively be captured by third-person plural terms (e.g., "mutually reciprocal and interrelated networks of dynamic processes"—or "holistic its"), the networks of intersubjective circles can only adequately be captured in first-person plural terms: by any other name, "we." And whereas "its" can be known by description, "we's" can only be known by acquaintance.

The "we" in all its many forms is the Lower-Left quadrant. It is the interior of any exterior system (an interior not itself located in exterior space; and affected, not caused, by exteriors, as part of mutual tetra-enaction). This "we" is the inter-interiority that geese feel when they fly together—*it is a mutual resonance of interiors*, not just a behavioral coordination of exteriors. Accordingly, an ecosystem can be looked at from the outside in a mode of third-person plural, but it can also be felt from within in a mode of first-person plural. Exactly what that means will be extensively invested below in the sections on "solidarity," sections that emphasize the importance of hermeneutics for getting at collective interiors, just as systems sciences are needed to get at collective exteriors. And, of course, any AQAL methodology would suggest including both.

In short, if bacteria have exteriors (they do), then have they interiors. And if those exteriors exist in networks of mutual interaction (they do), then so do the interiors. Those are the four quadrants.

Moreover, AQAL metatheory maintains that those four basic zones *are available at the level of bacteria themselves*, in that each bacterium has an interior sensation (or prehension), an exterior registration (or rudimentary cognition of its enacted world), an inter-exterior system of communication (which forms part of its social system or ecosystem), and therefore an inter-interior harmonic resonance with other bacteria (and other sentient beings). Its turtles all the way down, and therefore inter-turtles all the way down.

Of course, by the time we get to humans, the cognition of these zones has evolved into rational and vision-logic cognition of these zones, which results in highly sophisticated and often

self-reflexive modes of inquiry and paradigms of social practice, few of them available to other sentient beings, but all of them, it seems, launched from essentially similar indigenous perspectives available to sentient beings in general. This allows us, as we will later see, to plug any human mode of inquiry seamlessly into the Kosmos and thus truly be at home in the universe.

Let me point out one more item, quickly. We said we would return to the bacteria and look at them through the autopoietic lens. In the Upper-Right quadrant in this example (i.e., when viewing the existence of a bacterium as a third-person singular occasion), what Maturana and Varela did that was so original and profound was to look at that occasion *from within* its own enacted horizons—but they did so, not in first-person terms, but in third-person terms. That is, although they fully acknowledged that the bacterium has a proto-"I" or experiential dimension (UL), they admitted that their autopoietic paradigm did not and *could not* get at that interior, nor was it intended to. Rather, they indicated that they were instead giving a reconstruction (in third-person terms) of how the bacterium enacts and brings forth its world (hence, "biological phenomenology"). Autopoiesis is thus a brilliant attempt to take into account the first-person nature, activity, and agency of a biological sentient being, but *only insofar* as it can be viewed and approached in third-person terms—which is itself a knowledge by description, not acquaintance.

In other words, the autopoietic approaches to individual organisms are giving the *inside* view of the *exterior* organism. This is why, in figure 3, you can see "autopoiesis" written inside the boundary of the holon in the Upper Right (where it is contrasted with the more conventional scientific approaches of empiricism, behaviorism, and positivism, which view the objective organism from without—i.e., the outside view of the exteriors).

What Luhmann then did was to take Maturana and Varela's conception of autopoiesis and make his own profound contribution. Instead of viewing a "system" as composed of individuals (as had Maturana and Varela), Luhmann pointed out that systems simply do not behave the way organisms do—i.e., systems are not leviathans, but networks of communication, and *those networks themselves are autopoietic*. Again, that is also the conclusion of an integral

calculus of indigenous perspectives, but the integral calculus delivers that conclusion for both the Lower-Left and the Lower-Right dimensions of being-in-the-world (we will return to that in a moment).[21] Luhmann was not the first to point out that a system is not a leviathan or an imperium, but he was the first major theorist to spot that social systems can themselves be looked at from the inside, so to speak, and thus those networks of communications themselves can be seen as autopoietic.

In short, Luhmann did for holons in the LR what Maturana and Varela did for holons in the UR; they gave, respectively, the inside view of third-person singular and third-person plural. Those inside views of the exteriors (singular and plural) are some of the most influential approaches to zone #3 (the inside-exterior perspectives). We will especially explore those event horizons in Excerpt E (where they are contrasted with zone #4, the outside view of exteriors, singular and plural, including behaviorism and traditional systems theory), and we will return to an ecosystem and its members below, "Membership." In the meantime, you can see "social autopoiesis" entered as the inside view of the social holon or system, where it is contrasted with the standard "systems theory" that gives the outside view of the social holon or system.

Compound Individuals and Compound Networks

We have seen that, of the relation between an individual and a group/system, the two fundamental views have been that individuals are primarily *wholes* (or libertarian ends in themselves) versus individuals are primarily *parts* (of a system or web, which is the primary whole).

In reference to those two major schools, AQAL metatheory makes several basic moves: it claims that (1) any occasion is neither a whole nor a part, but a whole/part, or holon. It then suggests that (2) there are individual holons as well as communal, collective, or systemic holons; and further suggests that (3) when it comes to individual whole/parts and communal whole/parts, the word "part" means something very different in each case—to be a part of an individual holon

and part of social holon is not exactly the same type of partness (nor, therefore, exactly the same type of wholeness). In an individual holon, each larger or higher whole *subsumes* its juniors as *components* or *elements* of its being: whole atoms become parts of whole molecules, which become parts of whole cells, which all get up and walk across the room when Daisy tells them to. Here, the agency of one holon (such as a molecule) is subsumed in and by the agency of the higher holon (such as the cell), so that each larger whole in this sequence means that one agency (or holon) becomes a sub-agency (or subholon) of a larger whole. "Part of a larger whole" in this case means **agency-in-a-superagency**.[22]

But with a collective holon, society, or system, there is no single superagency that swallows its parts whole (which is what the Leviathan actually did to Jonah, swallowed him whole—there's a lesson in there somewhere). With a system or collective holon (social or cultural), to be a "part of a larger whole" means to be an **agency-in-communion**, not an agency-in-a-superagency. A system, web, or network of individual holons is a network of agencies-in-communion.[23]

Whitehead, among many others, have pointed to this crucial distinction by using the notion of **compound individual** (to borrow Hartshorne's elaboration). That is, individual holons (whether interior [UL] or exterior [UR]) are compound individuals, which means that each senior holon is compounded of its junior holons (it contains, includes, or enfolds the junior holons as elements, essential parts, or actual ingredients of its own makeup). We have already seen this general notion—it is "transcend and include" applied to individual holons. A molecule is a compound individual, compounded of atoms, which are compounded of protons, neutrons, and electrons, which are compounded of quarks, and so on.

What makes a compound individual at any of those levels is that the agency of each of the subholons is, in some important ways, enfolded or subsumed in the agency of the senior holon (e.g., Daisy): multiple agencies are enfolded in one agency (agency-in-superagency, subholons in holons).[24] Whitehead wonderfully summarized this as, "The many become one and are increased

by one," which captures well both the unification brought by each new superagency ("the many become one") and the emergence of the new superagency itself ("and are increased by one").

Even though the subholons retain a relative autonomy within the senior holon (e.g., in an organism, cells don't loose their boundaries, they are still relatively independent cells in many ways), nonetheless the agency or autonomy of the junior holons or subholons now also "obey," if you will, the agency of the highest holon of which they are constitutive elements (e.g., Daisy). Whitehead pointed out this crucial feature of compound individuals with terms like "dominant monad" and "regnant nexus": the highest level in the holon becomes a governor (or a "regnant nexus"—*governing pattern*) of the subholons that are *internal* to that holon.

Whitehead's point is that a society itself is not a compound individual but an association of mutually-prehending compound individuals. A society is a system without a dominant monad; an organism is a system with a dominant monad. (At this point, it is common for Buddhists to say that individuals don't have a dominant monad or a central self, either—the "self" is merely an illusion created by individuals out of ignorance—and therefore both individuals and societies are actually selfless systems. But that still misses the essential point. The "self" might indeed be an illusion; even so, individuals have it, societies don't.)

The point is that a group of individuals is not itself an individual. A communal holon—a culture, a family, a tribe, an ant colony, the prokaryotic network of Gaia, a weather system, a hermeneutic circle, a society, a crystal, an ecosystem, a system at any level—is not itself a compound individual but a collection, assembly, association, nexus, network, or system of mutually related compound individuals. As we will see, what is internal to systems is not individuals but their intersections (as when Luhmann maintains that societies are composed not of individuals but of communication).

One of the ways we will be summarizing this is to say that a society/system is a **compound network**, not a compound individual. The compound individuals in a compound

network are indeed mutually interdependent, multidimensional, interlinked, tetra-interpenetrating agencies-in-communions. They do not appear to be, however, parts of a really big critter.

Internal and External

In order to trace the extraordinary relationships between compound individuals and compound networks, we need one last theoretical item. Several sentences in the previous section contained comments like, "Atoms are *internal* to molecules, molecules are internal to cells." The notion of "internal" is used by philosophers to indicate that something is an actual part of something, necessary for its identity. The notion of "internal" adds a third dimension to our other spaces of "inside" and "interior."[25] These three dimensions (interior/exterior, inside/outside, internal/external) appear to be the minimum requirements for a integral calculus of indigenous perspectives. They are the three major navigational directions, if you will, in surfing the AQAL ocean with any sort of integral adequacy.

Very briefly, the notion of **internal** is simply another take on "enfoldment," or transcend and include, or development that is envelopment. One holon is *internal* to another holon when it is literally an internal component, ingredient, or fundamental element of that holon. The classic example is the series of compound individuals in the UR: atoms are literally internal to molecules, which are internal to cells, which are internal to organisms, and so on.

As such, if one holon is internal to another holon, that subholon becomes subject to the agency of the senior holon. When Daisy moves across the room, so do those holons internal to her organism. Our simple definition is: *a holon (in any quadrant) is internal to another if it is following the patterns or agency of that holon*.

In a cell, the molecules are some of the actual elements of that cell, or the actual organic ingredients of that cell. So it is not just that molecules are *inside* cells (which they are), but that they are *internal* to the cell's actual makeup. Other things can be *inside* a cell—like an invading parasite—but they are not *internal* to the cell itself, they are not part of its actual agency, identity,

or regnant nexus—they are *inside* the cell but not internal to it—they are *external* to its identity, they are external invaders. (Technically, as Varela would put it, the parasite is inside the cell but external to its autopoietic regime.)

Here's some quick examples of "internal" compared to "inside." When you first eat food, it is inside you (inside your stomach), but eventually much of its nutrients become internal, or an actual part of your bodily organism (some of the food therefore crosses both the inside boundary and the internal boundary). Some of the food does not become internal but is excreted; as it passes through the alimentary system, it remains inside but external to the organism, and eventually becomes outside and external: let's call that fertilizer (but which illustrates another point: the excrement of some organisms serves as food for others. It's not just, as Woody Allen put it, that "nature is one big restaurant," but that nature recycles everything, which means that everything is eventually internal to something.)

Another way of saying this is that the *internal/external axis* is simply the axis of a development that is envelopment (or enfoldment). Cells enfold, include, or envelop molecules in their makeup (so that molecules are internal to the cell); likewise, molecules enfold or envelop atoms in their makeup. This is often captured by the phrase: "all of the lower is in the higher, but not all of the higher is in lower" (e.g., all of the atom is in the molecule, but not all of the molecule is in the atom). Again, transcend and include, which establishes an asymmetrical holarchy of increasing inclusiveness, embrace, envelopment, enfoldment.[26]

(Notice that this is the same *enfoldment* that is one of the three integrative principles discussed in Excerpt B, "The Many Ways We Touch." One of the reasons that such a principle is useful in integrative approaches is that it helps us navigate the developmental or evolutionary current in AQAL spacetime. Holographic metaphors, which are an important part of the picture, fail to capture those important aspects of time's arrow, and thus models built merely of holographic metaphors are, ironically, much less than integral.)[27]

We saw that **interior** means any holon seen from within (in a first-person or LH stance; exterior is any holon seen from without in a third-person or RH stance); and **inside** means anything on the inside of a holon's boundary wherever it is found (in interiors or exteriors). **Internal** simply means that which is an ingredient or constitutive element in any holon (in any quadrant)—that is, something is internal to a holon if it is following the agency of that holon (and it is external to the holon if it is not). All of those terms—interior/exterior, inside/outside, internal/external—apply to both individual holons and collective holons. For the moment, we will continue to focus on what internal means with compound individuals, but we will soon see that compound networks or systems also have internal ingredients.

(What are these internal ingredients of a system, or the "parts" of which a system is composed? We have already seen one thing: they are NOT organisms or compound individuals. Rather, what is internal to a system is the communication between its members, or, more broadly, what we will call their "intersections" or transactions—all of the inter-holonic realities involved in the system. These *intersections* are the actual "parts" or internal components of the system, web, or compound network, as we will see in a moment.)

Internal in the Interior Spaces

Internal, then, connotes genuine "partness": if one holon is internal to another, then that holon is an actual element of the compound holon, a part of its being, identity, definition. Any holon that is internal to another holon becomes a subholon of the defining agency that holon: enfolded, embraced, enveloped. (Some people, using first-person terms, might call this "agape," but enfoldment will do.)

We have been using examples of "internal" and of "compound individuals" taken mostly from the Upper Right. But the same internality or enfoldment is operating in the interiors. In the development of cognition in humans, for example, we find images, symbols, concepts, rules, and metarules (among others). All of those are holons that are transcended-and-included in the next

senior holon—they are each interior wholes that become parts of larger interior wholes ("the many become one and are increased by one")—so that the holons at one level become subholons at the next (e.g., many images are taken up and enfolded in symbols; many symbols are taken up, operated on, and enfolded in concepts; many concepts are brought together, enfolded, and operated on in rules, and so on). In that interior sequence we again we see fine examples of internality, a regnant nexus at each level of enfoldment, a transcend-and-include movement, agency-in-superagency, and a development that is envelopment.

We especially see this vertical axis of transcend-and-include with self development. In order to follow this *internal* development, let's first listen to how *inside* is used when it comes to an "I" or an interior self-sense.

"These are the values that I hold. These are things that I identify with. These are the things that I want. No, I do not want that. Yes, I want this. That idea is not something I believe. Don't do that to me, I won't stand for it." This I-boundary is very real, very obvious.

What is *inside* my present-I are all of the things that are inside the boundary of my felt I-space.[28] Like all interior boundaries, you cannot see this boundary in the sensorimotor or Right-Hand world; you cannot see it with ecology, empiricism, systems theory, or autopoietic theories. But you know perfectly well when something is you, and something is not you. When somebody attempts to push their ideas on you; when they invade your privacy; when they attempt to manipulate you—you can spot a boundary violation almost immediately.

All holons, including interior holons, are functional wholes, which means that they have ways to register the integrity of their wholeness, or their self boundaries, or the interface where inside and outside touch each other. A healthy interface allows touching; a pathological interface either dissociates inside and outside (pathological agency) or merges and fuses inside and outside (pathological communion).

The healthy "I," like all healthy interfaces, recognizes what is "I" and what is not "I," while at the same time allowing regulated traffic freely to cross. Each holon has the equivalent of

an "immune system," which is part of its capacity to endure and continue in spacetime—aspects of its kosmic habits that allow the holon to persist, and without which it would quickly decease. Of course, one of the more amazing things about an I-boundary and a phenomenological I-space is how fluid they can be; still, to transcend an I-boundary is not to break it but to move beyond it; a broken I-boundary is not transcendence but pathology.

But even with most normal I-boundaries, as Perls and numerous depth psychologists have often pointed out, what is inside the I is not necessarily what should be there. The psyche has the equivalent of invading parasites (such as false identifications, introjections, and fixated/repressed elements that have not been properly assimilated). In other words, these *alien* elements are *inside* my psyche but are not *internal* to it—they are not a natural, essential, healthy element of my psyche or my self-identity; they are inside my psyche but external to its real identity—a bit of undigested meat in my psychic system—a type of *psychological immune disease*.

So we can have inside the self, and we can have internal to the self. How can you tell the difference? Remember that the definition of internal is "something that follows the agency of the holon." The reason that a parasite invading a cell is not internal to the cell is that the parasite is following its own agency (which might in fact be attempting to kill the cell); even when inside the cell, the parasite won't do what the cell's nucleus tells it to. The parasite is inside the boundary of the cell but is not internal to it—the parasite "has a mind of its own."

Likewise, dissociated, repressed, or "foreign elements" in the psyche notoriously have a mind of their own: they are indeed "alien elements" because they either originated outside the psyche and do not belong inside it (e.g., introjections); or they are elements that were once integrated in (and therefore internal to) the psyche but have now become repressed, dissociated, alienated: they are split off from the psyche and thus take on a life of their own.

In either case, they refuse to follow the agency of the psyche and instead follow rules of their own—they are still *inside* the psyche but are *external* to its agency: they are no longer part of the harmonious operation and agency of the psyche, but pockets of rebellion that refuse

desegregation. They might even become dissociated subpersonalities that split off into multiple personalities, or subholons that commit treason, that split off their agency and intentionality from that of the psyche, miniature subjects with their own intentionalities that refuse to become objects of the ongoing "I" and thus refuse to be part of the larger prehensions of the psyche.

There are, of course, all sorts of variations on those themes, but they all involve various sorts of disruption of the I-boundary, or *disruptions of the boundary conditions of internality for the self*. In simpler forms, what is repressed or dissociated is a feeling, impulse, image, need, or trait that belongs to the "I" but is not owned by the I, a dissociated and outlawed feeling-complex that is *no longer allowed* to arise in the I-space and therefore must take on symptomatic and disguised forms in order to do so.

For example, a man and a woman are in relationship; the man (intentionally or not) violates the emotional space of the woman, which normally would cause the woman to get angry. In many cases, and within limits, anger is a natural and healthy response to boundary violations— healthy anger is the T-cell of the psychological immune system, which protects the integrity of the self-boundary (and the phenomenological I-space). But in this example, the woman is not angry at her lover for being the complete dolt that he is, because she is a nice person and nice people don't get angry; she is, however, and for some strange reason, very sad and depressed. The anger that naturally arose and was directed at another person for having violated her space has now been "retroflected," or turned back on the self, whereupon she proceeds to beat herself up instead, taking an anger meant for another person and clobbering herself with it, at which point "mad" has become "sad." She is allowed to be sad, because nice people can be sad; but she doesn't know why she is sad, or how she got that way, and she has no control over this depression. In other words, at this point she is no longer translating the phenomena within the event horizon of her self or I-space in an adequate and accurate fashion; rather, these events now appear as *alien symptoms* that baffle her, that require interpretation, that do not obey her agency, that are starting to act with a mind of their own….

Many psychological symptoms—interior feelings of anxiety, depression, phobia, obsession, compulsion—are the disguised forms of feelings and impulses that, for whatever reason, are too dangerous to the I-space to allow them to arise in their raw and naked forms, and thus they have to be "clothed" in more acceptable fashions. Put bluntly, the psyche lies to itself, becomes false to itself, is no longer being *truthful* about its own interiors—the price of which is psychological pain and suffering.

(*Truthfulness*, recall, is the selection pressure, or validity claim, of the UL quadrant. The types of psychopathology we are investigating here involve violations of this integrity or truthfulness, the price of which is psychological anguish, suffering, angst. When the self is untruthful, it damages its internality codes and boundaries, or the ways to tell with integrity what is true self and what is false self. A history of interior deception, untruthfulness, lying to oneself, deceiving oneself, is the beginning of the creation of a false-self system, the beginning of a kosmic habit as a negative karmic stream of dis-integrity that lives on lies. It is this false self we are briefly examining, which is not to say that other things aren't also happening with psychological dys-eases, including, e.g., UR neurotransmitter imbalances, LL family problems, LR economic factors, and so on. We are here simply focusing on the *UL manifestation* of the knot in the Kosmos identified as a "psychological symptom.")

In this example, an original feeling of "anger," which is not allowed by the self's agency, regime, or code (because it is a nice person), is mis-translated as "depression" and thus allowed to arise in the I-space as long as it is wearing that disguise, a disguise that is accompanied by suffering as the price of untruthfulness.

Different cultures have wonderful variations on this theme, the theme of *mistranslating* an occasion, which always has tragico-comic consequences—the "trickster" being one of the most common. In America, there is a phrase, "He's the beard for Joe," which means, one person is acting as a front or disguise for another person. The word "beard" comes from fake beards that

a person can wear if they are going to a costume party. If I put on a fake beard, I am disguising myself; at parties, this is funny because it so obvious.

But in other cases it is not as obvious and not as funny. In Hollywood during the '40s and '50s, movie stars were "not allowed" to be homosexual. That behavior was still "outlawed," or not allowed to arise in any public we-space. Therefore, famous male movie stars who were gay—Rock Hudson, Tony Perkins, James Dean—would often appear in public with a woman, and sometimes even marry a woman, as a disguise. The woman, to those who knew, was "the beard"—she was the fake "beard" the man was wearing in public in order disguise his real self and thus be allowed to walk freely in a public we-space. The price to the man, of course, was usually a horrible interior pain and suffering for always having to put up a false front, a false self, in public.

The same thing happens in an I-space. If I have an impulse that is not allowed, that is outlawed, then that impulse can arise in my I-space only if it is disguised. My psychological symptoms are "beards" for my real impulses and my real self. Those outlawed feelings can arise and walk around freely in my I-space only if accompanied by a beard—only if disguised, the flip side of which is anguish, pain, suffering, torment.

If this dissociation increases in severity, the repressed and outlawed occasion is projected outside of the psyche entirely and thus actually appears (to the I-space) as a trait *belonging to another person* onto whom the trait has been projected (i.e., what is actually internal to the psyche is now *perceived* as being internal to the psyche of another person: I am not angry, because I am a nice person, but everybody else seems to have a lot of anger!).

Because the immune system of the I-boundary will protect its phenomenological space from disruption, if an internal element (an element that is a genuine part of the actual self) becomes a threat, that element is no longer allowed to enter the I-space unaccompanied; it becomes "outlawed" and thus must either wear a disguise in order to enter in the I-space ("mad"

wears a beard called "sad"), or it is banished from the I-space altogether, in which case it can arise in the I-space only if its ownership is attributed to another I-space.

(Notice that all of this is still happening in interior spaces. If I project my anger, it will be onto another I, and it will then appear, not that I am mad at that person, but that person is mad at me. Anger is not something running around out there in the exterior sensorimotor world, although it has correlates there, but rather is a phenomenon arising within interior I-spaces, and thus when it is displaced, it is displaced within various interiors. Only in severe pathologies is the interior phenomenon projected not only outside and external, but also exterior.)

In milder forms of dissociation, the repressed occasion appears as an alien impulse (repressed, dissociated, projected). In harsher forms, the repressed occasion is so completely severed from the agency of the I-space that it appears not simply as an alien impulse but an *alien "I"*—it appears as *another I* within the psyche, a relatively independent (sub)personality with a mind of its own, an "I" that is actually experienced as *outside* of my proximate I, another *first person* residing in my psyche—hence multiple personality disorder. In its severest forms, that dissociated first-person subpersonality in its entirety can be projected not only outside the psyche and external to the psyche but also *exterior* to the psyche, in which case this split-off personality is hallucinated—but actually appears as—a real person in the exterior world, a person who talks to me, tells me what to do, won't shut up and leave me alone…. This complex is so dissociated that it can appear in my I-space only if it appears as outside *and* external *and* exterior to me….

Whatever the source and degree of these dissociated, outlawed, alienated, and hence "alien" elements, they involve boundary violations and disruptions of various indigenous perspectives of first-, second-, and third-person occasions—confusions about what is "I," what is "you," and what is "it," all focused on the internality codes of the particular self or I-space. Individuals suffering from these symptoms and inner dissociations reflect them in native language by situating the *origin* of their symptoms as *external* to them: "These panic attacks just happen"; "I can't control my desire to eat"; "I can't get out of this depression," and so on—the interior

problems are phenomenologically experienced as *external* to the person's will and intentionality (they do not "obey" my will).

In milder cases, these alienated impulses are external to my I but not yet exterior to my I. For example, the compulsion to eat does not fall on my head like an apple, it does not come from out there—the compulsion to eat comes from somewhere inside me, it just doesn't come from me! I can't control it, I don't want to do it, I hate over-eating, and yet the compulsion, it's stronger than me. The compulsion is definitely experienced as *interior*, but it is *not* experienced as *internal* to my I, not part of my intentionality: it is external to I. Remember that the definition of "internal" is "anything that follows the agency of the holon." Well, this damn compulsion will not follow my agency, my will, my intentionality: it definitely is external to my I (but not exterior or out there). In severer cases, the alienated complex can indeed be projected in its apparent totality into the exterior world, where it might appear as a hallucinated first person.

The job of depth psychology, of course, is to restore the integrity of the self boundary, its internality codes, its interface of touch, so that introjections can be dislodged, projections re-owned, alien elements eliminated or assimilated.[29]

In many cases, the progress of therapy is measured by how successfully individuals can convert third-person symptoms (or "its"), which completely baffle them, to second-person occasions that they are beginning to communicate with, to first-person occasions that they now own.

For example, the person starts out with: "This feeling of depression, it just happens to me whenever I am around Joe. I can't help it." This depression is a *third-person* occasion or "it" arising in her interior space (a third-person occasion in her first-person I-space). As she feels into this depressed state, bodily and emotionally communicating with it as a real *second-person presence* that has something important to tell her (a second-person presence that has an intentionality that can potentially *be understood*), then various felt-meanings will be begin to emerge in her I-space—and will do so without their beards (e.g., real and authentic feelings of

anger might emerge in her I-space). At that point, she might be able to say, not that "this

depression, it just happens to me," but rather, "I am really angry at Joe"—at which point she is

not sad, but fucking furious. She has owned her own intentionality.

Thus, from third-person "it" to second-person "you" to first-person "I"—the course of

befriending a previously alienated subjectivity (thus reversing the course of the symptom's

genesis, where an "I" impulse, censored and disallowed, became a third-person dissociated "it").

Freud famously summarized his version of depth psychology as, "Where id was, there

ego shall be." As is now well known, Freud never used the Latin words "ego" or "id," which

were words inserted by his major translator (Strachey). Freud himself used the German words

"das ich" and "das es," or "the I" and "the it." Freud's actual statement that summarized therapy

was, "Where it was, there I shall be"—a truly wonderful summary of therapeutic re-authoring,

reflecting well the calculus of indigenous perspectives (from "it" to "I"). That Freud's

metatheory is not, shall we say, exactly something to write home about, should not detract from

some of the profound phenomenology Freud brought to this therapeutic endeavor. (One of the

best ways to track the "I" and the "it" in therapy is to read the works of Fritz Perls, who was an

unsurpassed master of tracing the shadow that is untruthfulness as it migrates from "I" to "it" in

symptoms and back to "I" in therapy.)

For the moment, all we need note is how the basic indigenous perspectives, available

even to a bacterium, can be traced in my compulsion to eat. The manifest universe does indeed

seem to be constructed of perspectives, all the way up, all the way down, linking all sentient

beings in endless reflections of each other, an Indra's Net of multiple intimacies.

The I-Boundary

We have seen that when it comes to the interior I and its self-boundary, there are things

that are *internal* to this I and things are that are *inside* this I, and sometimes they are not the same

thing.

What, then, actually establishes or creates the agency of the self or "I," the agency or pattern that determines whether something is internal or external to the self? Several items, but one of the most important is the self's own past history. Each I prehends its previous I. The present-I is thus a prehensive unification of all past I's, which are now *internal* to the present-I. The "I" of this moment prehends the "I" of the previous moment, and thus the feeler of one moment becomes the felt of the next: all the feelings of my yesterdays are tucked into my present I: all of my yesterdays are, to one degree or another, enfolded in the I of right now, they are *internal* to this present I. This is, of course, karma.

This internality, this pattern that is I, is the agency of the self, reflected especially but not exclusively in the self's will or intentionality. This intentionality or agency is freely emerging or unfolding in each moment, and enfolding or enveloping its previous moment (free will plus determinism, creativity plus karma), which is why the I is not merely its past, but neither can the I escape its past. That movement of transcend-and-include is simply one example of the external/internal axis: each moment transcends (or is external to) the previous moment, which becomes internal to (or enfolded in) the new moment.

That is why the vertical axis of external/internal is so important in self development. As it is now widely understood by developmentalists and summarized by Robert Kegan, the subject of one stage of development becomes the object of the subject of the next stage. (This unfoldment/enfoldment is the large-scale or macro-movement correlate of Whitehead's prehension, which covers the micro-scale. The latter looks at moment-to-moment touch, the former looks at what happens over longer periods of months or years, and they both find the same general tendency: unfoldment and enfoldment, or transcend and include, or external and internal, or creativity and karma).

It is the self's history of being-in-the-world that is crucial in helping to define what is internal to that self, what is real and true for that self. What this means is that *interior* holons are

internal to the self when they follow the karmic patterns of the self laid down as kosmic habits and present now as the agency of the self (and are external to it when they do not).

This does not imply that what is internal is always healthy; a history of untruthfulness on the part of the self, or oppression on the part of others toward the self, can create an unhealthy, inauthentic, or dys-eased self-boundary, an inauthentic internality code, an inauthentic or false self—but it is nevertheless still the karmic history that is helping to define the code or agency, helping to define what is right for this particular self and what is not.

Thus, each *interior* self or I-space has a regulative boundary that establishes the integrity of the self and allows its interfacing with the world. Phenomena that arise within the boundary of that I-space are *inside* the I; phenomena that arise inside the I and are following the agency of that I are *internal* to that I. Just as foreign elements like parasites can be inside a cell but not internal to it, so foreign elements can be inside my self but not internal to it (they are inside my self but not following its agency—they have a mind of their own). The internality of a holon is that which establishes its self-identity. Internal doesn't just mean something is inside a holon, but that it belongs there according to that holon's history of being-in-the-world. Items that do not follow this pattern or agency are external to that holon's regime (and are so experienced).[30]

As we saw, these external elements sometimes involve pathology (as when internal impulses become external "its"). The relation of externality is not, however, always or even usually pathological. Sometimes the external elements are simply items that are "over the head" of the present self (just as a molecule is over the head of an atom). *External* simply means anything that is not following the agency of the holon (in this case, not following the agency, will, or intentionality of the self or "I").

Those events that are "over the head" of the present self—and are thus experienced as external to the self—include transcendence; and the most common form of that, as we have often seen, is prehension itself, or the moment-to-moment feeling of the present as it transcends-and-includes its previous felt moment. The previous moment becomes *internal* to the present

moment, which is *external* to it. That is why, in my moment to moment existence, I feel that I am moving beyond the previous moment, and yet the previous moment is enfolded in my awareness. The previous moment is contained in the present moment, but the present moment is *not* contained in the previous moment—and so goes the Whiteheadian flow of Spirit's holarchical unfolding….

Transcend-and-Include

If "internal" means any element or subholon that follows the agency of another holon, then *external* simply means: anything that does not. Sometimes the external element is at the same level of development; sometimes at a lower level of development; sometimes at a higher level. As Varela often points out, a molecule is internal to a cell, but the cell is external to its own molecules: all of the molecule is in the cell, but not all of the cell is in the molecule. The cell is "over the head" of the molecule, it transcends it in many important ways (for example, the molecule is following the agency of the cell, but not vice versa).

These external event-horizons signal transcendence. Transcend-and-include means something new and higher and *external* to the present entity comes into being (transcendence), but the present entity is taken up, included, and enfolded in the new occasion as an *internal* thread or strand in its makeup. (Some people would call that eros and agape, respectively, but those people probably think geese have feelings.)

Thus, transcend-and-include means external-and-internal. The "many become one" (which means, the many become internal to the new one) and "are increased by one" (which means, the new one is external or beyond the many, although it is in turn transcended-and-included).

So an atom is internal to a molecule, but the molecule is external to the atom. Notice that the molecule is *not outside* the atom—*outside* the atom is just more atoms. When the atom "looks" *outside* itself, it sees other atoms, but it *cannot* see molecules, or cells, or organisms—not

in their wholeness—but sees clearly only the phenomena at its own atomic level. The molecule is not outside the atom but external and senior to the atom (the molecule is on a higher level than the atom), and therefore the atom cannot even see the molecule. Thus, in the entire phenomenological space of atoms, there are no molecules anywhere to be seen. (Likewise, in the phenomenological space of the blue meme, for example, there are no orange, green, yellow, or turquoise events anywhere to be seen. *Literally*.)

The point is that indigenous event horizons are established not just by consciousness (interior and exterior), not just by space (inside and outside), but also and deeply by time, in which each holon in each quadrant prehends its previous moment of existence, makes that previous moment internal to its being, enfolds and embraces and envelops it, a moment of eros reaching up, a moment of agape reaching down. At instances of great evolutionary novelty, when emergent leaps of transcendence make the creativity component of each moment's karma-and-creativity significantly outweigh the dull density of the karmic components, then entirely new levels, new classes, new orders of holons stunningly emerge on the scene, testament to Spirit's *lila* or spontaneously creative play, but a play that tetra-meshes with Spirit's own play of the moment before, embracing, enfolding, and agapically loving that which came previously in the dance. *Internality* weaves the Kosmos together holarchically, enfolding more and more, embracing more and more, loving more and more, until a Spirit is revealed that transcends all and includes all, a Spirit nonetheless fully present in the first transcendence and the first inclusion, which to say, fully present from the very start of this or any universe.

Internality is the form of spacetime's self-prehension, a self-organization through self-transcendence (to put it in dry third-person terms), or—in first-person terms much more accurate—the love that moves the sun and other stars.

The "external/internal" dimension in its most essential nature is the vertical dimension or the "transcend/external-and-include/internal" axis of a development that is envelopment. To be internal is to be agapically loved. Internality underlies the *enfoldment* principle of integral

metatheory, and it can be found operating in all four quadrants (more examples of which will follow). Such is the *height/depth axis* for navigational flow in the AQAL ocean: transcendence and inclusion, unfoldment and enfoldment, creativity and karma, Eros and Agape, operating wherever a compound individual transcends and includes its juniors, which is to say: all the way up, all the way down, leaving no holon in the Kosmos untouched by Eros and Agape, expressed in the higher reaches of the human domain as a wisdom that lets go of everything and a compassion that embraces everything, a sophisticated expression nonetheless of the same indigenous perspectives available to every sentient being across the spectrum of the miracle of manifestation.

Summary of Individual and Collective

We have seen that individual holons are themselves composed of other individual holons—they are compound individuals that are internally composed of other compound individuals (which we called agency-in-superagency). Any compound individual can be looked at from within its own boundaries (as a first-person I) or from without its own boundaries (as a third-person it). At the same time, each individual holon (I/it) exists only in networks of other holons at the same level of complexity or development (i.e., agency is always agency-in-communion); these self-organizing networks or systems of compound individuals are societal, communal, or collective holons (we/its).[31]

A system, to the degree that it is a functional whole, is indeed a holon; but what is internal to this holon is not individuals but their transactions (a point to be explored in more detail below). There is no I/it without a corresponding we/its, yet neither can those be reduced to each other. A collective or systems holon is a compound network, not a compound individual. A group of organisms is not itself an organism. In all systems or compound networks, the compound individuals in the systems are agencies-in-mutual-communion, not subholons in a leviathan; partners, not parts.

Interiors and exteriors and singulars and plurals cannot be reduced to each other because perspectives are not interchangeable (hence, the nonexclusion principle). "I," "we/thou," and "it" are a sampling of the indigenous perspectives available to sentient beings, who, in order to manifest, must take up a position in spacetime *relative to each other*—that is, relative to other sentient beings. Hence, *every* sentient being aware of another sentient being is a first person relative to a second person; and every communication between them is a third person relative to them. (Peirce intuitively understood this with his definition of a sign: any aspect of reality that stands for another, to another: and there you have three persons.)

There is no way around this in a universe composed of sentient holons who only manifest with each other, to each other. Thus, prior to (or, at the least, *a simultori* to) feelings, awareness, things, or processes we find: perspectives. The notion of perspectives appears to give us a much more accurate reading of the texture of the Kosmos than do notions such as things, events, processes, systems, feelings, prehension, awareness, or consciousness, because *all of those arise only in a matrix of perspectives.* One version of that matrix is called AQAL.

Perspectives are not perspectives on (or of) a pregiven reality or universally given world; rather, each perspective helps to enact or bring forth a phenomenological world (hence, the enactment principle). This is not a mere subjectivism, however, because subjective realities are only part of the story (the part of the story enacted by first-person perspectives); in order to manifest in world of already composed of multiple perspectives, those first-person perspectives (of any I or we) must mesh with a world of objective perspectives (of it and its), so that subjectivities must take their place in world of objectivities. "Objective reality" is not a fiction, but is itself in turn only a part of the overall story (the part of the story enacted by third-person perspectives). Each perspective, then, both captures and brings forth a dimension of the universe, and those dimensions must mesh (for us, tetra-mesh) if they are to exist in the same world.[32]

Those first-, second-, and third-person perspective-dimensions, in their nonreflexive forms, are present whenever the universe contains three or more prehensive entities or holons

(which is to say, always)—the four quadrants go all the way down. That is, if some sort of proto-awareness, feeling, or prehension goes all the way down, the quadrants go all the way down. There is no interior without exterior, but also no singular without plural. To say the quadrants go all the way down is to say that the Kosmos is built of perspectives, not perception, not feeling, not awareness, not matter, not consciousness, not energy—for all of those are *abstractions* from the real world where all of them are always already a perspective. Perception, feeling, awareness, prehension, and consciousness all privilege the monological subject, which exists nowhere in the real world; hence, the "death of the philosophy of consciousness" which is part of the move to a truly post-metaphysical stance.

We looked at a single cell as an example. If, with the wisdom traditions (as well as many influential modern philosophers), we assume some form of pan-interiorism, then we assume that the cell has some form of sensation or proto-experience—it has an interior as well as an exterior. Further, the cell clearly recognizes boundary violations (as when a parasite invades it), and therefore the cell registers an inside and an outside to its interiors and its exteriors. If we add the notion of cellular solidarity—which simply suggests that if cells have exteriors in common, they must have interiors in common—then we have the four quadrants with their insides and outsides, even with a cell. This is why these 8 phenomenological spaces appear to be indigenous to manifest existence. Not their self-reflexive forms, of course, but their simple registration in the sensitive or prehensive Kosmos.

By the time we get to humans, these 8 primordial perspectives are embedded in various explicit and implicit ways in natural languages, ways that can more consciously be disclosed, honored, and employed using an integral calculus of indigenous perspectives, which pays attention to the embeddedness (i.e., natural, not metaphysical) of phenomenological spaces using the heuristic guidelines of nonexclusion, enfoldment, and enactment.

Doing so, we noticed that an occasion in any of the quadrants can be viewed from *within* its own boundary or from *without* its own boundary. (In reference to fig. 2, this simply means

that a holon in any of the four quadrants has an inside and an outside.) That gives us (at least) eight different methodologies of human inquiry, and we are in the process of discussing examples of all eight—although we have grouped them, for this presentation, as the inside and outside of the interior and exterior, or four general phenomenological horizons, hori-zones, or zones, which are event horizons that are tetra-evoked by the subjects enacting those spaces. All 8 indigenous perspectives are hori-zones, but these four zones particularly highlight certain important features of phenomenological event horizons—namely, by focusing on the inside and outside of any boundary, we can pay special attention to knowledge by acquaintance (or touch) versus knowledge by description (or distance): the first-person and third-person dimensions of being-in-the-world, both of which are important, but neither of which can justifiably be privileged.

(This excerpt is devoted to **zone #1**, or the inside-interior, disclosed especially by phenomenology and hermeneutics. The next excerpt is devoted to **zone #2**, or the outside-interior, disclosed especially by structuralism and cultural anthropology; and succeeding excerpts are devoted to **zone #3** and **zone #4**, or the inside-exterior and the outside-exterior, disclosed especially by empiricism, behaviorism, autopoiesis theories and systems theories. The net result of a walk through our own indigenous perspectives is an Integral Methodological Pluralism that offers a more charitable understanding of the Kosmos, one that makes explanatory room for the many methodologies that people are already using anyway, and one that allows us to condense and instantiate this integral methodological pluralism in an IOS—an Integral Operating System, which acts a constant reminder to leave none of these indigenous perspectives behind in our rush to comprehension.)

We start with hermeneutics, or how individual "I's" can understand each other, interpret each other, come to some sort of mutual understanding with each other—the miracle of shared interiors. What is a "we"? The more you think about it, the more amazing and mysterious it becomes, this secret interior place where you and I must touch if we are to understand each other at all….

Part III. **THE CRUCIAL IMPORTANCE OF HERMENEUTICS: What Is a "We"?**

A Circle of Friends

You and I are talking. We are friends. This means we already share some sort of background culture (such as a network of shared language). In other words, you and I are already in some sort of a *first-person plural* phenomenological space, or a specific "we-space." Your inside-interior singular ("I") and my inside-interior singular ("I") have come together in a space that we both call "we."

You are attempting to explain to me an experience that you had last night. As you begin to convey this information to me, at first I do not understand the whole picture; I must listen and attempt to interpret what you are saying. At some point, presumably I will get it, I will understand, and we will share that understanding. At that phenomenological point or nexus of mutual understanding, you and I share a "we." Your horizon of meaning and my horizon of meaning overlap at that point. Both of us will therefore say things like, "Is this what you mean? Yes? Then we understand each other, right?" "Yes, we understand each other."

We understand each other: two "I's" have overlapped or intersected in a "we."

At this point, I am not primarily concerned with whether or not two people—any two people—can ever really understand each other. The typical pluralist attempts to interject at this point and claim that people occupy incommensurate lifeworlds and thus mutual understanding and similar signification are not possible ("all interpretation is misinterpretation"). With the integral approach, however, we don't attempt to invalidate another person's claim in that rude a fashion; rather, we back up to a wider horizon and simply notice that people are *already* going around and saying "we understand each other," and therefore we are not primarily concerned with

whether that claim is objectively true or not, but in understanding a universe where that claim *can* occur, because it is definitely the case that that claim is already occurring, and at this point we are trying to listen to existence, not judge it.

So, you and I are now "part" of a "we." But this "we" is not a super-I that subsumes you and me into a single organism that then controls everything we think and do. In other words, you and I are *inside* this "we" but you and I are not *internal* to it. That simple understanding is the key to the relation of individual and collective (in both the LL and the LR; we will return to the LR with our discussion of Luhmann; at this time, it is the LL we are listening to).

When you and I say that we understand each other, or that we feel things together, or that we share certain values, and so on, then you and I are inside the hermeneutic circle of a cultural we, or inside a shared horizon of meaning, value, understanding, and so forth. You and I are inside a we-boundary.

For example, if we belong to a circle of friends, we know exactly who is in that circle, and who is outside that circle. We even call them "insiders" and "outsiders." If an outsider attempts to enter this circle of friends uninvited, the circle reacts as if it had an immune system of its own—like all holons, the we-circle protects its boundaries vigorously. Of course, we might decide to enlarge our we-circle to include more and more sentient beings, but we do so by, indeed, enlarging the "we," not damaging it. A damaged or broken we-boundary is, like any broken boundary, not a transcendence but a pathology.

In other words, you and I are inside a cultural holon, with its own event horizon and its own phenomenological boundary. Like all interior boundaries, you cannot see this we-boundary in the exterior, sensorimotor, Right-Hand world. But you and I both know exactly where this we-boundary is.

So you and I are inside a "we," a we that has a definite boundary. But you and I are not internal to this "we." You and I are not actual components, subholons, or parts of this "we"—you and I are not limbs of a leviathan such that 100% of you and me are all dragged across the floor

when this monster "we" decides to walk. You and I are members, not strands—our individual "I's" are *partners* in a we, not *parts* of a we. (We are members of a cultural holon, not components of it: you and I are inside, not internal, to the we.)

So what *is* internal to this "we," or what are the actual components of this present "we"? The suggested answer, which the rest of this excerpt will explore, is: You and I are inside a "we" when our intersections are internal to it.

Here's a quick walkthrough: you and I are phenomenologically *inside* this hermeneutic circle, in that you and I <u>both</u> assert that <u>we</u> are within a circle of friendship. But we are not *internal* to it (we do not feel that we are components of a super-I that pulls all our strings). What is *internal* to this "we" are all the present and past *intersections*—literally, the <u>*inter*-*subjective*</u> occasions—that are contained in the phenomenological space defined by the specific ways in which you and I use the word "we."

Here's a simple example. This is a strong version of a we/its (a sociocultural network); not all collective holons are this obvious or precise, but as an example, this is illustrative.

You and I decide to play a game of chess. The game of chess uses a checkerboard and 16 pieces. Each piece is defined by the types of moves it can make and its relation to the other pieces. These are the "rules" of chess—the regime, pattern, or structure of the game. You and I are inside or "in" a game of chess, not when everything about you and me follows the rules of chess, but when our *interactions* in this game follow the rules of chess. If you or I break the rules, we are "out" of the game. Thus, you and I are **in** a game of chess when our interactions are **internal** to the game: it is our transactions that follow the rules of chess, not you or I.

And, finally, chess itself is not an I, nor is it composed of I's; it is composed of the intersections of I's.

(In fact, as individuals, you and I remain *external* to the game of chess even when we are in a game of chess, because not all of our existence follows the rules of chess, even when we are playing it. My metabolism, my fantasies, my physical fidgeting—and millions of other things

about me—do not follow the rules of chess. Only my intersections with you in this bounded

spacetime locale follow those rules. So when you and I are playing chess, we are, as compound

individuals, *external* to the game. Our intersections, however, are *internal* to the game; when our

intersections are internal to the game—or when we follow the rules—then you and I are *in* the

game, i.e., we are *members* or players of this particular game; and somebody not playing this

game is both *external* to and *outside* of the game, even if they are watching.)

The rules of chess, although they are now fixed, were not always so. The rules of chess

have a history. These rules are not natural laws written on the face of matter, but they have, over

the years, become regular patterns, forms, or habits that now govern all those who want to play

that particular game. When you and I come together to play chess, we are inside the game when

our intersections are internal to it, and that internality includes the entire history of chess as it

actually unfolded in real time and then settled into the stable pattern now called "chess."

Our ways of being-together are much like chess. The ways that you and I come together

into any "we" are determined in part by the history of that "we." That "we" is not itself an "I,"

but neither can it be reduced to "I's." But one thing is certain: this "we" has a life of its own.

This we has a life of its own. When you and I come together, we have a history. There is

nothing you and I can do to change that history. There was that time that you got drunk and

threw up on Mrs. Jones; the time that we went over to Sue's house and John was already there;

and, of course, that unfortunate incident with the chicken. The *history of this we* helps determine

how you and I understand each other, what our shared experiences are, the types of meaning that

we can share, and so on. Somebody *outside our circle* will have a very hard time understanding

us, yes?

This "we" is a series of intersubjective exchanges that, as a network or collective holon,

indeed has something of a life of its own. Every time we get together, the history of this "we"

precedes us; it is there, tucked into our present moments together (just as every previous I is

tucked into my present I). The study of our friendship is the study of the history of this "we," the

study of our culture together. Every time we get together, our history thickens; every time we get together, this "we" deposits another layer of Kosmic habits (or probability waves expressing the ways that we tend to be-together in that locale of the AQAL ocean). If we have been together a very long time, we might say things like, "Our friendship fits likes an old shoe"—a worn habit, but a wonderfully worn habit, comfortable and warm and caring, a groove in the Kosmos we have traveled together, finding so much more of ourselves as we do so.

The mutual understanding that you and I share; the value spheres that we have operated within; the fused horizons that contain our mutual prehensions; the ways that we anticipate each other—all of these only make sense against the cultural background of the "we," this "we" that has a life of its own, and a history of its own. This life-history of our "we" does not exist apart from you and me, but neither can it be reduced to, explained by, or deduced from our individual histories.

You and I as compound individuals are inside this circle of friendship, but the only aspects of us that are *internal* to this circle are the exchanged (and/or tele-prehended) aspects. We have been summarizing this by saying that, among other things, what is internal to a "we" are the *intersections* of its members. (This is the LL correlate of Luhmann's LR conclusion that what is internal to a system is not organisms but communication.)

Overall, then, the items that are internal to this we-circle include the present intersubjective exchanges (or intersections) of its members, the patterns or habits governing those intersections, and the past history of those intersections. You and I are inside a "we" but not internal to a "we," a "we" that enfolds all of our yesterdays of togetherness and the habits they have deposited, to result in the actual patterns of the nexus that comes to define this particular "we" that has a life of its own. Any "we" is carried in the sum total of its members but can be reduced to none of them.

So it is that every time you and I come together, and touch each other from within the circle of our shared horizons, this "we" precedes us, thick and rich and luscious with its own

history, a history that provides the context for every word that you and I will utter, frames an event zone for every feeling we can share, surrounds us with a shroud of mutual comprehension in a sea of otherwise alien encounters. This "we" precedes us, enfolds our intersections in its warm horizons, a sheltering sky of mutual understanding, within which our being-together moves.

This "we" is not someplace else; it is not above us, prior to us, or outside of us—it is carried in you and I, but cannot be reduced to you and I, nor deduced from you and I. It is a whole that is more than the sum of its intersections—which is why it has something of a life of its own. I cannot, by myself, change this we; neither can you; we can only dance this dance together, this miracle of care and grace arising in the Kosmos of our being-together.

Nexus

The many ways that we use the word "we" include its present form and feel, and, enfolded in that, *its entire history*—what is internal to a "we" is not you and I but all of the past "we's," all of the past intersections of mutuality. This is why the hermeneutic mode of knowing is often called "**historic-hermeneutic**"—this present-we can only be understood in light of its ancestors.[33] Just as what is internal to any "I" includes its own past "I's" (prehensive unification), what is internal to any "we" includes its own past "we's."

(Here again is the "tetra-hension" operating in all four quadrants, which is part of the very essence of Kosmic karma in all domains: all holons, in all quadrants, transcend-and-include their past.)[34]

This "we" is a nexus. A nexus is simply another word for a network, a collective, a communal holon, a system, but it gives special emphasis to the relational space of togetherness that constitutes collectives. Since "nexus" has fewer established connotations than "system," I will generally use that term, although they both essentially refer to a collective holon, or an aggregate acting as a functional (LR) or meaningful (LL) whole.

To get the technical definition out of the way first: a **nexus** is the space of *inter*-individual or *inter*-holonic occasions (not trans-holonic and not intra-holonic)—that is, a space of inter-compound individual occasions (whether intersubjective or interobjective—the LL is any intersubjective nexus, the LR, any interobjective nexus). Compound individuals exist in networks or systems or communions with other compound individuals (agency is always agency-in-communion); a nexus is the *phenomenological space* of these communions or intersections. As we have seen, compound individuals are *inside* a system or nexus, but not internal to it. What is *internal* to a nexus are not individuals but their intersections. (And those intersections are nestled in their own history, are enfolded in this we/its that has a life of its own.)

Put simply, a nexus is any space in which two holons touch in any fashion. (And that is true all the way up, all the way down). As we will see, this nexus or intersection network can include all sorts of communicative exchanges (chemical, hormonal, emotional, spiritual, linguistic, tele-prehensive, etc.); it has interior and exterior features (e.g., cultural membership [LL] and social systems [LR], or intersubjectivity and interobjectivity, or *first-person plural* ["we"] and *third-person plural* ["its"] dimensions—or again, inter-signifieds and inter-signifiers).

The word "nexus" itself has three major meanings, all of them excellent for this purpose. A nexus (from the Latin *nectere*, "to bind") is (1) "a means of connection, a link, or tie"; (2) "a connected series or group"; and (3) "a core or center." On the "connection" side, synonyms are "context, relation, reference, coherence"—all of them central to what a nexus is and does. On the "center" side, synonyms are "seat, hub, heart"—which is exactly what a nexus is, the heart of our being together. Not being swallowed by one big monster, but the profound ways in which we find ourselves by finding each other. In a nexus, we remain as individuals but are nothing without each other.

It's not a paradox. When you and I as compound individuals are inside a hermeneutic circle, those *aspects* of ourselves that are exchanged (and/or tele-prehended) are nothing outside that circle of exchange (they do not exist outside of their being exchanged, since they are the

ripples in the exchange itself). This is captured well in the word "transaction"—buying and selling, for example. Anytime somebody purchases something, somebody else has, at the same time and in the very same act, sold something. You simply cannot find an act of buying without an act of selling—they are two perspectives on the same transaction—but the transaction cannot be reduced to either of them. This relational or transactional (or tetra-enactional) exchange is the "stuff" of any collective holon or we/its.[35]

(In Excerpt E, in our discussion of Luhmann and social autopoiesis, we will see that the same thing holds for ecological systems and interobjective networks, although those networks, of course, are best enacted and illumined via third-person plural perspectives and paradigms. For those interested, here's a quick technical summary: Systems are composed not of individuals or organisms but of their exchanges or communications: what is internal to the system is the communication, not the organisms. Organisms are not strands in a Web, their intersections are. *Organisms* are *members* of a system, their *transactions* are *components* or parts of the system. Organisms are partners, their interactions are parts, links, nodes, or strands in a network. Organisms are **inside** an ecosystem, not internal to it; their intersections, however, are **internal** to the ecological nexus and are the "stuff" of ecosystems, the stuff of systems that represent the exterior-collective or third-person plural dimensions of being-in-the-world—and whose **interiors** are not ecosystems, webs, or interactive processes but the intersubjective feelings of their prehensive members best captured not by systems but by hermeneutics, first-person plural. This approach to a truly integral or AQAL ecology is radical and unprecedented; we will explore it extensively in later sections. We will use "nexus" and "network" to refer to both cultural and social holons—or the interiors and exteriors of collective holons—while also keeping in mind the relevant differences.)

The many "we's" that saturate our lives are often very obvious, both from within and from without. When five friends (other than you and me) come together, for example, and sit in a living room and talk, we already know that you cannot see their "we" in the sensorimotor world,

since it is an interior boundary. You might, however, directly experience that we-boundary in your interior if you try to join that circle of friends and are excluded—your interior feelings might be hurt if you are rejected from the circle—and thus you can feel that we-boundary whenever you try to cross it.

If this circle of friends allows you and me to join, then seven of us are now inside this particular circle of friendship. Every time the group allows somebody new to enter this circle of we, the we-nexus itself will govern, not the new individual or member, but the new member's intersections with us. To step inside our group is to begin to understand and follow the patterns of our group, *patterns that govern the flow of our mutual understanding*—you are inside the group when your interactions are internal to the group.

Likewise, if somebody is born into a particular circle of we, that we-nexus will govern, not *all* of the aspects of the compound individual, but those aspects that traffic in *the intersection space*—the cultural space—the intersubjective space—whose nexus governs, gives meaning to, and provides the first-person plural space in which (and by virtue of which) any mutual understanding can occur at all.

This cultural or intersubjective nexus has, of course, an almost infinite number of dimensions. As we will see, there is a sense in which culture has streams (which have waves) and states (which don't); and types and tokens, grades and clades, hierarchies and heterarchies, groves and grooves. And, of course, any "we" has correlate "its"—any cultural nexus is wedded to a social nexus or system (although never in a simple geographical location, as we have often seen). But any way you look, listen, feel, or resonate with this occasion, a "we" is not only more complex than we imagine, it is more complex than we can imagine—that infinite hall of mirrors, an endless envelopment of nexi within nexi, raw fields of feeling within fields of feeling, forever.

That you and I are friends means that we already exist in several larger "we's" (i.e., we are inside of, not internal to, several other cultural holons or nexuses). These other cultural holons might include shared interests, a religious orientation, a national identity, a shared

language, and all the innumerable contexts that are handed to us as Kosmic habits of the many intersubjective circles with which we are enmeshed.

Some aspects of these intersubjective networks are foreground, some are background; some manifest, some latent; some interpretative, some pre-interpretative; some conscious, some unconscious, preconscious, subconscious, superconscious; some content, some context; some pre-linguistic, some linguistic, some trans-linguistic.

(The cultural contexts and backgrounds were, of course, Heidegger's specialty, and I have drawn on much of his pioneering work, especially as refined by Hans Georg Gadamer, the greatest of the hermeneutic philosophers, and Gadamer's interpreters, such as David Hoy. I have also extensively critiqued Heidegger; basically, I believe that, even within his own paradigm, he failed to grasp the importance of waves and streams—and thus badly misjudged the discourse of modernity—and he poorly interpreted the nature of both intersubjectivity and interobjectivity. We will return to this below).

The Hermeneutic Circle

The study of we's is the study of culture. In the particular example we have often been using—namely, our friendship, which is a mini-culture defined by the sum total of the ways that you and I and use the word "we"—as that friendship grows, the history of these we's starts to become a Kosmic habit in this particular hermeneutic circle (i.e., in this particular spacetime locale of the AQAL matrix). You and I are inside this hermeneutic circle but not internal to it.

The **hermeneutic circle** is the phrase many theorists use to describe a "we," which is a wonderful choice. "Hermeneutics" is the art and science of interpretation; the name is from the Greek Hermes, who was the god of invention and commerce, but also the *messenger* and the *scribe* of the other gods. In order to understand messages, you have to interpret them—and notoriously, messages from the gods need interpreting (none more so than from the renowned oracle at Delphi, whose most famous advice has survived to this day: "Know thyself"). But

interpretation is wildly slippery, and thus Hermes was also a trickster god—he was, in fact, also the god of invention, cunning, and theft. So let me ask you: if you were in a foreign land and had to rely on an interpreter in order to understand anything that was going on, would you want a trickster and a thief as your only connection to the world?

Well, as the postmodernists have amply warned us, that is what interpretation turns out to be in any event—a trickster and a thief. While the phrase "all interpretation is misinterpretation" (or "all meaning is indeterminate and undecidable") is a typical postmodernist absolutism, it captures a partial truth well enough. That partial truth, as I would put it, is this: much of communication is an exchange of *exterior* signs and words in an attempt to share *interior* realities and experiences, and while exterior signs are third-person occasions, interior realities are first-person occasions—and thus *something incredibly important is <u>always</u> going to get left out*, which leaves a "gap" or "hole" of indeterminacy that can <u>never</u> be filled by words or signs—leaves, in fact, a sliding series of gaps and holes that sabotage interpretation at every step, at every twist and turn in the road of any message that arrives, whether from the gods, mortals, or mice.

Much of postmodernism—from Lacan to Derrida to Lyotard—is an attempt to trace these holes. Communication is not a simple case of sharing units of obvious and definite meaning, but a series of semi-meanings surrounded by a sea of holes and trickster gaps, where absolutely nothing is what you think it is. (Lacan—especially if you read him correctly, which is as comedy—showed that much psychopathology can be traced to the infant's tragic attempts to chase these holes. Needless to say, ha ha, the result is anguish.) Hermes is the trickster, the joker, the jester—and the only person who can interpret Hermes is… Hermes, since he is the only scribe.

In other words, it's holes, all the way up, all the way down.

(I mean that seriously. No holon—at any level, atoms to apes—can signal its interior adequately with exterior signs, whether chemical networks, hormones, or words. It is teleprehension that ultimately grounds intersubjectivity, not communication, as we will see. The

postmodernists missed that essential element, which left them with nothing but holes, hence their notoriously self-contradictory stances. But the partial truths they brought forth were indeed profound, and the first was: words don't mean what they say they mean. Hermes is a trickster and a thief.)

And yet here was virtually all previous philosophy simply assuming that words meant what they said they meant. This naive assumption—that words mean what they say they mean—postmodernism labeled "metaphysics," "presence," and "logocentrism," and went on to point out (correctly, I believe) that all of those notions are deeply confused. "Metaphysics," in that what philosophy took to be "meaning" is really "indeterminacy," and what it took to be "signification" is really a "sliding chain of signifiers" never reaching what they claim to reach—and thus the old metaphysical approaches had to be thoroughly and radically deconstructed. "Presence," in that, as Derrida put it, "nothing is ever simply present," which means nothing is what it means ("interpretation is misinterpretation"). And "logocentrism," in that all previous approaches had privileged the spoken word over the textual word—and thus had assumed that meaning could in fact be controlled by the first-person speaker, whereas meaning cannot be controlled at all. [36]

(Notice that many of the great comedies—in literature and film—are based on this endless play of words and the limitless number of misunderstandings that are inherent in words and signs themselves, precisely because meaning can *never* be fully controlled or contained—it's holes all the way down. From Oscar Wilde's *The Importance of Being Ernest* to Abbott and Costello's "Who's on First?," this sliding chain of trickster signifiers has been played to the hilt for the radical humor inherent in this ridiculous situation we call communication. Gaps, holes, indeterminacies, sliding meaning, inherent misinterpretation—from Aristophanes forward….)

Those are all partial truths that most definitely deserve a seat at the integral banquet. But *partial* truths they are—in fact, none of the above truths could be communicated at all if they were completely true. (If all interpretation is misinterpretation, postmodernism itself could never have been understood by anybody. Postmodernists would have opened their mouths and out of

them would have come holes, not meaning; gaps, not criticisms; absences, not presences—and the sum total of postmodernism would have been a thunderous silence, whereas postmodernism was, without doubt, the noisiest, wordiest, loudest, textiest, most logocentric philosophy ever advanced. Never have more words been written about why words don't work. Never have so many owed so much to so little.) Nonetheless, for an integral approach, the postmodern critique of metaphysics joins the modernist critique of metaphysics as two compelling reasons to re-interpret the higher reaches of human potential in *post-metaphysical* ways. But notice also that post-metaphysical does not mean anti-metaphysic al, which is why any genuine post-metaphysics would be both *post-modern* and *post-postmodern* (or post-orange and post-green—which we will return to in Excerpt F).

But it is the partial truths of postmodernism that we have to thank for highlighting this amazing hermeneutic circle, this extraordinary thing called "we," a thing that is indeed a mystery in so many important ways. The slippery nature of interpretation and mutual understanding is captured well in the notion of a "circle," because each time I interpret what I think you mean, the circle of understanding has shifted, the "we" has morphed. It really is like a hall of mirrors, where each reflection is reflected an almost infinite number of times. Every time I interpret what you mean and then talk back to you, you must interpret that, which I then interpret, which you interpret—and around we go in the hermeneutic circle that is literally endless, and dizzying, and mysterious.

But you understand what I mean about this "hall of mirrors" analogy, yes? You see, we understand each other well enough. These "we's" are there, and you and I know they are there. We know when we are in them, and we know who is inside them and who is not. These "we's" are a mixture of the understandable and the forever unknowable, but they are not total lies. The Kosmos clearly allows them to arise; and you and I *cannot* believably deny their existence because even if we agreed that they do not exist, that agreement would be a "we."

(As with all phenomenological realities, they are realities impossible to doubt or deny at the moment of their arising. This is the intersubjective form of the impossibility of denying an "I." If modernism was founded on the impossibility of denying an "I"—an impossibility upon which the whole of phenomenology is correctly founded—then postmodernism was founded on the impossibility of denying an intersubjective "we"—an impossibility upon which the whole of hermeneutics and post/structuralism are correctly founded. Since the postmodernists are so nasty about the Cartesian certainty, which nevertheless none of them successfully doubted, let us playfully return the favor and call this the Lyotardian certainty, which nobody can successfully doubt, either. Both certainties are radically correct within the hori-zones they address, because by the time you have touched something, you cannot believably deny you have touched it, and all interiors are known by touch.)

Because these "we's" are impossible to actually doubt or deny, let us listen to them a bit more attentively….

Nexus -Agency

Does a nexus have agency? Does a system or collective holon have agency? Although the following will apply generically to cultural and social holons, we will focus in this section on the specific contours of intersubjective networks or "we's."

When it comes to a cultural nexus, does a "we" have agency? When it is said that "this we has a life of its own," what exactly does that mean?

As with whether a society is an "organism" or not, whether it has "agency" or not depends on how you define terms. We saw that a society is like an organism in some ways and not like an organism in other ways—and the same is true with agency. If by agency you mean intentional action in general, then yes, collective holons have agency. A group of men building a log cabin, wolves hunting in a pack, geese flying together—those are all group activities

coordinated around a single goal, and hence they are collective (sociocultural) holons displaying agency.

If by agency you mean a single intentionality, sensitive center, or dominant "I," then no, collective holons do not have agency, in my opinion.

I use "agency" in the former and more general sense, as the pattern or regime governing or regulating the action of any holon.[37] In this general sense, holons in all four quadrants have agency, which is part of their defining patterns (i.e., the agency of an actual occasion can be viewed from four perspective-dimensions).

That said, the importance differences between the quadrants need also to be factored into any discussion of agency. Right-Hand holons, for example, have agency only in the exterior sense of mass-energy impacts and registrations (where they follow physical laws, habits, rules, and regulations, including those of physical causality, morphic resonance, formative causation, chaos and complexity dynamics—all of which are exterior form-mass-energy registrations). Left-Hand holons involve consciousness and intentionality proper (i.e., agency as *intentionality* originates in the first-person spaces of free will but can be viewed from a third-person stance of determinism; when we refer to agency in the exterior or Right-Hand quadrants, it is the exterior correlates of interior intentionality that are meant.)

Most importantly, individual holons (or compound individuals) have something resembling Whitehead's dominant monad or Spencer's sensitive center—a singular agency in some important ways (which shows up in the UL as a prehensive-I, whose exterior form in the UR is Varela's autopoietic regime of an individual organism). A nexus (cultural or social) has no such compound individual sitting on top of its exchanges and engulfing them.

But, if we are very careful, we can refer to **nexus-agency** (or network-agency or systems-agency). This nexus-agency is what "has a life of its own"—which means, a life governed by its own history, habits, and patterns. Nexus-agency is not determined by the

individuals that are *inside* the nexus, but by the *intersections* (of the individuals) that are *internal* to the nexus.[38]

Now, here is a simple semantic decision. We saw that Whitehead correctly pointed out that a compound individual has something like a dominant monad, whereas a society does not. Whitehead sometimes used the term "regnant nexus" as synonymous with "dominant monad," so that a society did not possess a regnant nexus, either. But to my ears, "regnant nexus" as a term sounds just fine for a society, system, or collective holon, because a "nexus" is not really the same as a "monad," and thus a collective holon can plausibly have a set of governing rules but not a dominant-I. The rules of chess, for example, are the regnant nexus or governing rules of that social interaction. In other words—and again, if we are very careful—I think it is fine to refer to the nexus-agency of a societal holon or system as a *regnant nexus* or governing network (which is not, of course, a governing individual or dominant monad).

We will be discussing examples of this nexus-agency in both cultural and social holons—this network that has a life of its own—a life that is indeed something of a regnant nexus or governing pattern, not because it subsumes its members but because it subsumes its own past in the present intersections of its members. There is no dominant monad (no super-I or social superagency) required to do this (in either cultural networks or social systems); but neither can this nexus be reduced to nothing but the interactions of isolated individuals. This "we" has a life of its own because it has a yesterday in the space of our touching each other, a karma of our togetherness.

A nexus, in short, is a fusion of horizons, not a fusion of individuals. It is the meeting place of all agencies-in-a-communion, not a superagency swallowing all its agencies.

But these network horizons ("nexus") do indeed influence or govern ("regnant") the intersections arising within their probability waves. What influence do these compound networks have on me as a compound individual? What influence does this "we" that-has-a-life-of-its-own

exert on me, who is a member of this network?[39] What is the "regnant" power that this "we" has over its member "I's"?

As an "I," I am especially constrained in my intersubjective dimensions in this sense: when I am a member of any hermeneutic circle (or cultural holon), those *aspects* of my I that enter the hermeneutic circle—those "intersections"— are powerfully constrained by the previous kosmic habits of that circle. That which enters a "we" is, by definition, that which you and I understand and share (not necessarily agree on, but share). Something of me that you do not understand, see, or hear is not a part of the we-horizon. Accordingly, to the extent that I want to be seen, heard, and understood by you—that is, to be in a relation of actual resonance with you— then my interactions with you categorically must mesh with those items that can arise in that we-space. My interactions, my intersections, my transactions in this we-space are thus powerfully governed by the patterns, structures, habits, and history of this particular we—are powerfully governed by the nexus-agency of this we.

My present intersections can *transcend* past intersections to some degree but must also *include* them (and thus past culture stands to present culture as yesterday's I stands to today's I, in the moment-to-moment tetrahension by which all events endure). In other words, this present cultural circle or cultural holon must transcend and include its previous cultural holons, holons that are now internal to the present cultural holon and are hence part of the history that helps determine its *internality* code, agency, patterns, rules, structures, or identity—in short, what is internal to that we and what is external to that we.

Remember that the definition of "internal" was "anything that followed the agency of a holon"? We can now easily apply that definition to systems or collective holons. Because a collective holon has nexus-agency, anything following that nexus-agency is internal to that collective holon—and what follows the nexus-agency of any network are the interactions of the members of the network. Because no compound individual obeys the nexus-agency of any system (a compound individual possesses relatively autonomous elements that are external to any

system), the only thing that is internal to a collective system is the sum total of interactions of the compound individuals who are members, partners, or participants in the system or network.[40] This is as true for gas molecules as for wolves, as true for coral reefs as for democracies, as true for weather systems as for traffic patterns.

Just as the history of "I" helps define the internality code (or the "true self") of an individual holon, so does the history of a "we" lay the patterns that help define the border of the "we" (inside of which is us, outside of which is them). Each culture has a history, as kosmic habit, that each new culture must transcend and include (on pain of pathology). If previous culture is not transcended, nothing new is introduced into the circle; the culture is fixated to its past, frozen in its yesterday. And if previous culture is not included, there is dissociation, repression, cultural forgetting—and we all know what we are doomed to do if we forget the past.[41]

Moment to moment in the hermeneutic circle, the past cultural network becomes *internal* to the present cultural network. The ways that you and I touched each other yesterday are enfolded into our touching today; you and I enter this hermeneutic circle today governed in part by all the ways that we have ever entered it, which means the kosmic habits of our "we" are carried in this circle, in this custom of our togetherness, the habits of our hearts.

Correlatively, the present culture is in some ways *external* to the past—namely, in its novel, creative, or transcending ways, the present culture is external to, or goes beyond and cannot be fully captured by, its own yesterday. In the moment-to-moment "quadratic-prehension" or "tetra-hension" of all actual occasions, the intersubjective dimension enfolds its own history via the tetrahension of its members—and thus proceeds the karma-and-creativity that is inherent in all quadrants or manifest dimensions of holons. Each present culture or nexus transcends-and-includes the previous moment's nexus, as you and I tetra-hend in communion.

The network or nexus of intersections does not directly control compound individuals but rather exerts its control on the system of exchanges of compound individuals. (This means, to put

in the third-person terms of AQAL metatheory: the probability of finding a particular type of interaction between you and me is governed in part by the past history of interactions that is now internal to this nexus, the nexus whose boundary defines or demarcates the phenomenological space inside the hermeneutic circle—the boundary that <u>we</u> both recognize when <u>we</u> <u>both</u> use the word "we." The probability waves of our individual responses are modulated when they enter a phenomenological space of intersections that have themselves deposited kosmic habits of their own togetherness—much as, say, light waves are bent in the Earth's gravitational field—except that culture is a field of feelings and shared interiors, not merely shared exteriors or social intersections. Put differently, yesterday's communal holon is a subholon in today's communal holon; yesterday's nexus is internal to today's. You and I are not internal to today's communal holon, yesterday's communal holon is. Of course, the story immediately becomes complicated because a compound individual is, in part, an internalization of various cultural nexuses—and so goes that particular version of the infinite hall of mirrors. We will return to this socialization process later.)

Summary: Membership

You and I are in a we when our intersections are internal to it, which, very simply, is the definition of *membership*. Individual holons are **members** of a particular network, system, or communal holon when their intersections follow the nexus-agency of that holon.

While flying, a goose is a member of the flock when he follows the V-formation, and is an outsider when he does not (at which point, he can be ostracized or even attacked; he has broken the circle of we). The V-formation is not itself another goose; it is not an organism; it does not have an "I" or dominant monad; there is no controlling center that commands each goose instantaneously. The V-formation is not a compound individual but a compound network, which does, however, have a defining pattern or regnant nexus; in this case, the actual structure or shape of the V-formation itself, which is a *social* system of interlinked behavior (LR), whose *cultural*

correlate (LL) is a harmonic empathy (or a feeling of flying-together with other sentient beings that each goose clearly recognizes as being members of its own group). I suspect that violating that feeling is registered just as sharply by each goose as is violating a behavioral pattern, a feeling whose broken form is likely a type of uncomfort or stress, and whose positive form, to put it perhaps a bit strongly (but not much), is the simple joy of flying together. (And if you don't believe that geese have any feelings at all, please skip to the next example, you insensitive slob, you.)

The V-formation, then, has a set of social-behavioral *rules* and a set of cultural-pattern *meanings* that define it. (We refer to the cultural and social dimensions together as a societal, collective, or communal holon or network, a "we/its"). While flying, each goose is a member of the societal holon if his intersections with the other geese follow those rules and patterns. If his intersections mesh with (are internal to) the V-formation, then he is following the "law" or regnant nexus of the group—he is "inside" the V-formation when his intersections are internal to it. If not, he is *outlawed*, or no longer a member of the flock. And nonmembers or outsiders, in most animal communal holons, are dealt with unpleasantly.

What is internal to the communal holon in this case is the sum total of intersections (both interior and exterior) that each goose recognizes as necessary for the V-formation (both shared rules and shared feeling-meanings). These rules and regulations for creating a V-formation are carried in the sum total of the geese (including their collective prehensions, their genetic inheritance, and very likely a morphic field), but phenomenologically can be found in none of the geese individually (you just can't get a good V-formation going with one goose).

Quadratically, then, we have the following in a calculus of primordial perspectives (or perspectives indigenous to all sentient beings): in the **UR**, we find the **behavior** of each individual goose as he attempts to mesh his behavior with the behavior of the group or social system (**LR**). The **social system** itself, which can be seen in the actual shape or design of the V-formation as a whole, consists of the autopoietic information and objective communication

networks between the geese (a la Luhmann) that together constitute (or are internal to) the social formation of the V. That social system (the interobjective or inter-exterior nexus) is the *network of behavioral interactions* between the geese as they go through the process of social learning and systems-behavioral modification in order to produce and maintain the social holon expressed in the V-formation. This behavioral network particularly includes communication in its third-person aspects (systems of artifacts, signifiers, data bits, calls, and signals).

In the **UL**, each goose has an interior **prehension**, proto-feeling, or proto-experience, a sensitive or sentient registration of his or her interior as well as exterior. If a goose could speak, she would say "I" (all geese have buddhanature or primordial awareness, as do all sentient beings; but "proto-experience" will do). When two or more geese are together, they resonate with each other, sense each other, their prehensions overlap to some degree: this set of mutual prehensions is their **inter-interiority**, the cultural "we" that is the inside-interior or cultural correlate (**LL**) of the social system of behavioral "its" seen in the V-formation (**LR**).

(Which is why communal or societal holons are referred to as "we/its," realizing, of course, that every occasion is actually an "I/it/we/its," at the minimum. Context will determine if either the cultural or social dimension is being highlighted; but in the last analysis, the way you can tell which is meant is that the cultural dimensions can authentically be described only in first-person plural terms—we, us—a knowledge by acquaintance; whereas the social dimensions can be adequately described in third-person plural terms—they, them, its.)

A compound individual is a member of a collective or group when its intersections with others in that group are following the rules or defining patterns of the group, which are whatever it is that makes that group *an actual group* or *functional whole*—whether a V-formation, or a values group, a philosophical group, a group of friends, a national group, a coral reef, an ant colony, a wolf pack, and so on. These rules (or regnant nexus) are intuitively (i.e., pre-reflexively) known by each member, even if in a rudimentary and proto-experiential fashion, because moving within their groove, within their kosmic habit, makes me an "insider" or "in-

law"; falling out of that collective groove, or violating those togetherness codes, makes me an "outsider" or "outlaw"—and the feedback from groups, at almost any level, is usually immediate and obvious.[42] Socially and behaviorally, breaking the togetherness codes is a survival risk to the group as a whole; culturally and prehensively, it is no fun.

Each particular V-formation (each communal holon or "we/its") has a specific life of its own—and this "life of its own" is indeed what makes communal holons so interesting. On the one hand, all geese V-formations share certain general similarities (or deep structures as we are using that term, namely, the probability space of finding a certain occasion in the AQAL matrix); these deep features are carried in (among many other places) the sum total of genetic makeup of the geese, in various morphic fields, and in any social institutions that might surround and support them. The most obvious deep structure is the actual morphic form or pattern of the V-formation itself, which appears universally wherever geese appear—Hindu geese have it, Muslim geese have it, shamanic geese have it. But each specific V-formation, each actual we/its, *also* has a character all its own, a set of surface features found nowhere else. Each V-formation, at some point, had to actually get started—a group of geese who had never flown together had to assemble and begin the social learning process of doing so, no matter whether instinctually primed or not—and there is accordingly *embedded* in each particular V-flock the history, the kosmic karma, of this specific we/its as it unfolded. We summarize this by saying that *internal* to any we/its are all the previous we/its in this particular stream. This flock has a history, including when Bob the cluck flew into Marge, and George the nitwit slammed into a wall during take off. (You just know that happened, yes?)

Thus, looked at through an integral calculus of indigenous perspectives, for each individual goose (each actual occasion or actual holon), there is an enacted prehension that is embraced in culture, embodied in nature, and embedded in social networks. Enacted, embraced, embodied, embedded: the same actual occasion reflected through its own native perspectives.

Now, for the insensitive and prehensively challenged, a human example. Actually, we can refer to the earlier example of chess and quickly review it in light of what we have discussed. The summary is simple: the rules of chess, developed over its long history, are its regnant nexus—the regime, pattern, or nexus-agency of the game. You and I are inside or "in" a game of chess, not when everything about you and me follows the rules of chess, but when our *interactions* in this game follow the rules of chess. If you or I break the rules, we are "out" of the game. Thus, you and I are *in* a game of chess (i.e., we are *members* or players of this particular game) when our interactions are internal to (or follow the patterns of) the regnant nexus of chess.

Why do we play chess? Because it's fun. Just like flying together.

Cultural anthropology, in its many forms, is an investigation of the governing patterns and regularities in inter-individual interactions in culture: a look at cultural networks. Generally, cultural anthropology—which the dictionary defines as "the scientific study of culture"—attempts to look at these networks from a third-person stance, and when it does so, it moves within the event horizons of zone #2 (the outsides of the interiors), which we will return to in the next excerpt. Some forms of cultural studies, however, rely more on hermeneutics (such as ethnomethodology and interpretive anthropology), and thus move within zone #1. Needless to say, an integral anthropology would include both, but we first want to explore the dimensions of each of these zones individually before we look to their possible synthesis.

(If you glace at fig. 3, notice that there are actually four major methodologies dealing with communal holons—the insides and outsides of the exteriors and interiors—and we will see that "cultural anthropology" and "cultural studies"—and history and sociology—have all been involved in various sorts of acrimonious disputes between those major methodologies. We will return to these disputes and attempt to sort them out; in the meantime, it is the insides of the interiors of these networks that we are feeling our way into….)

The Demands of Our Togetherness

"We's" are the "units" of culture. The study of the history of "we's" as kosmic habits is the study of a culture and its history.

We have been looking at the example of our friendship, where you and I share a mini-culture in our togetherness. But often individuals are simply born into we's that already exist, which means that, for each compound individual, there must be, from the start, a tetra-mesh and tetra-adaptation, or the compound individual faces, shall we say, erasure from the matrix. I am born into various we/its, landed squarely in the midst of their intersections; hence, from the start, my exchanges with others in any network must mesh (or learn to mesh) with the regnant nexus of that network, or else there will be no *decoding* mechanism at the receiving end for the messages sent through that network—there will be no way for me to decode the exterior signals and signifiers that I am receiving and unfold them into interior meanings and signifieds: the entire sociocultural network will be all Greek to me.

No compound individual—no bacterium, no ant, no geese, no ape—can long survive in those circumstances, because survival is not merely an UR organism enduring in time, but a tetra-occasion unfolding in the AQAL matrix of primordial perspectives. The native perspectives available to all holons are not simply perspectives on the same event but enacted dimensions of any event, dimensions that must co-existence with the rest of the universe or face, as we were saying, erasure. Each quadrant is both an expression of a holon's native dimensions of being-in-the-world and a demand-claim that those dimensions do in fact fit or mesh with the rest of existence.

Thus, to look at it in third-person terms, each primordial perspective embodies an implicit validity claim. Perspectives are not static but are perspectives-in-action, and those actions must mesh with other actions in the Kosmos. The actual existence of any holon, top to bottom, is an implicit claim on the part of its existence that its existence can indeed exist: that its being-in-the-world is *adequately* nestled in endless networks of other beings in the world. If it is not

adequately nestled—in all four quadrants (truth, truthfulness, meaning, and fit)—then turbulence in the AQAL ocean will sink its claims. One way to summarize that is by saying that there are selection pressures (or validity claims) in all four quadrants, whose technicalities I will pursue in an endnote.[43] The simpler point is that there are demands placed on us by virtue of our togetherness, demands that we resonate adequately with others with whom we share a Kosmos. Those validity claims are a measure of the honesty that any holon brings to its existence in the world of its togetherness.

When I am born into a society, I am landed in a labyrinth of already-existing networks, individuals, cultural and social holons—a plethora of "I's" and "you's" and "we's" and "its"— and the tetra-selection pressures from those perspectives slam down on me from day one. Yet those are not merely selection pressures besieging me *from without*, but calls *from within* to awaken my own indigenous perspectives and begin to inhabit them with consciousness, care, resonance, and radiance. That society can often cripple these native potentials and blind my own perspectives is no secret. What is less often realized or appreciated is the positive side of all of those demands: the miracle of our togetherness circles as they call forth from us those extraordinary potentials that neither you nor I would ever find in ourselves without each other: the beauty and radiance that each of us is because of the other. That is the ultimate secret of these circles of we's, these togetherness dances without which the heart of the Kosmos could never beat a single beat, and would have no reason to do so, even if it could.

Compound We's

The many ways we touch extend indefinitely, with each "we" nestled in other "we's," involving other nexus-agencies (which may themselves involve different waves, streams, states, and types). This is where the phenomenological tracking of "we's" becomes a four-dimensional chess-game nightmare, only worse. For this presentation, let me flatten it out a bit and give a quick topological fly-by (I will reserve a more technical treatment for an endnote).[44]

A communal system is indeed a holon (or a whole that functions in relation to other wholes). It is not an individual holon (or compound individual), but a communal holon (or compound network). As a holon, the agency of this communal holon, like all agency, is an agency-in-communion, which means, in this case, *a nexus-agency that is in communion with other nexus-agencies* (which occurs via the compound individuals that are members of both nexuses). This occurs as the involved compound individuals tetrahend their overlapping worlds moment-to-moment. Put simply, each "we" exists in networks of relationships with other "we's."

These different "we's" overlap and intersect in any number of ways—standing next to each other, including each other, excluding each other, subsets of another, encompassing others, enveloping others, at war with others, at peace with others, and so on. As complex as those relationships are in the real world, there are two essential points that seem to hold in all cases: a "we" never subsumes, includes, or governs individual holons but rather their inter-holonic exchanges or intersections; and there is no fundamental "we" of which other we's are constructed (just as there is no fundamental individual holon or "I" of which all other I's are constructed—it's turtles all the way down, and therefore inter-turtles all the way down).

The point is that a "we" can grow and expand (can transcend-and-include), but in actuality this never involves the subjugation of individuals but simply the governing of their intersections by the nexus of which they are partners or members. A "we" can therefore expand to include a membership with all sentient beings, yet without subjugating any of them—that is, without subsuming them in a superagency of a really big organism.

It is the higher-"I" dimension in a holon that subsumes lesser "I's," with each higher-"I" identity or agency resulting in a wider "we" membership or communion—but the "we" never transcends or subjugates any "I"—that, again, is fascism of one sort or another. The only time a "we" attempts to subjugate individuals is when somebody thinks that a social holon is itself an organism or superorganism. This imperium or leviathan view, as suggested, tends to be the basis of fascism—political fascism, eco-fascism, social fascism (which we will address in the next

excerpt). Even in such cases of pathology, however, a fascist system still only subjugates the intersections of its members, not the individuality of its members.

In other words, *no society can or does transcend individuals.* No society, group, system, culture, nexus, network, or collective can or does transcend-and-include its members. Societies transcend-and-include their own past; what is internal to a culture is the previous moment's culture, not you and me. No group can transcend an individual; an individual can only transcend himself. A group can only transcend itself. Compound individuals transcend-and-include their previous states; compound networks transcend-and-include their previous states; but compound networks do not transcend-and-include compound individuals. No society transcends and includes individuals. Again, individuals are partners, not parts, of any nexus. (What is *part* of a nexus is the previous moment's nexus, and thus, even in pathological systems, it is intersections, not individuals, that are oppressed.) Individuals are never subsumed; previous cultures are. Horizons are fused; sentient beings are not.

A sentient being or compound individual is inside many social and ecological systems, but is internal only to its own higher self. (Sentient beings are inside and external to systems, but inside and internal to God—and God, as the Self of all selves, is external to all manifestation but all manifestation is internal to God—i.e., Spirit *transcends all* and *includes all.*)

Failure to understand the difference between expanding an identity that is "I" and expanding a circle that is "we" leads to most of the problems encountered in eco-theories, in my opinion. Even a theorist as sophisticated as Arne Naess (the founder of deep ecology)—who advances a conception of what he calls "*a hierarchy of gestalts of identity*" (by which he basically means, a holarchy of self-identity)—fails to conceptualize this in any adequate fashion, as he himself frankly acknowledges. Naess realizes that expanding an "I" or self-identity means a wider circle of identity with others, eventually including *all sentient beings*; and this expanding circle of identity is crucial to genuinely ecological consciousness. But the relation of this expanding "I" to the expanding "we" eludes Naess: "From the identification process stems unity,

and since the unity is of a gestalt character, the wholeness is attained. Very abstract and vague! The widening and deepening of the individual selves *somehow* [his italics] never makes them into one 'mass.' How to work this out in a fairly precise way I do not know." No eco-theorist that I am aware of has succeeded where Naess failed.

The relation of an expanding "I" (which transcends and subsumes *its own* lesser identities until it realizes an I-identity or Self-identity with Spirit) leads to an expanding circle of "we" (a "we" that can include *inside* its circle of care *all* sentient beings), such that individual horizons become fused (or become intersections inside ever-wider circles of care), but individuals themselves don't become "one mass" (or *internal* to a really big organism). As an individual "I" becomes higher/deeper, the circle of "we" becomes larger/wider—but at no point does an particular I subsume other I's, nor at any point does a we swallow individual I's (at no point does a Gaia subsume individuals in an imperium agency). "One Taste" does not mean "one mass" or "one organism" or "one leviathan," but a direct realization that my I is Spirit, my We is all sentient beings, and my It is the entire manifest universe. In other words, higher I's (that transcend-and-include lesser I's), greater we's (that transcend-and-include lesser we's), and wider its (that transcend-and-include lesser its).

The "one mass" or "Gaia superorganism" view of ecological consciousness usually stems from a leviathan or imperium metatheory, which is what causes most of the intractable problems. If, instead, we simply follow the indigenous phenomenology of all four quadrants, allowing each to arise in the space of its own nativity, the relationships become more transparent: higher I's, greater we's, and wider its—until every I is Buddha, every We is Sangha, and every It is Dharma—and none of them melt down, but rather find themselves as the exuberant expressions of a nondual Spirit that is the groundless Ground of each. Spirit is not I nor we nor it, but the empty fullness in which they all appear as expressions of the unqualifiable Suchness of this and every moment, a moment endlessly refracted in the primordial perspectives of its own becoming and honored in an integral embrace that bows to the radiance of each.

Part IV. **THE NATURE OF HERMENEUTICS: One "I" Understands Another "I" Only Via a "We"**

Overview

In human beings, the notion of expanding a "we" or a circle of togetherness is the basis of various forms of **hermeneutics** and **collaborative inquiry**. [45] That is, two subjects come together and, in addition to any harmonic empathy (and other forms of prior intersubjectivity and/or tele-prehension), they attempt to exchange tokens of their interiors in order to more adequately understand each other. (These tokens are not merely or even especially linguistic, and certainly not at pre- and trans-linguistic waves.)[46] This is an attempt to understand an other *from within*, not merely without (even though the attempt is often mediated via exterior objects, signifiers, or communicative tokens), and therefore this type of communication attempts to move from exteriors to some sort of interiors. It is, in many ways, an exchange of third-person "**its**" (outside-exteriors) in order to help convert a first-person singular "**I**" (inside-interior) and a second-person singular "**you**" (outside-interior) into a first-person plural "**we**" (shared-inside-interiors).[47] I share part of my inside-interior and you share part of your inside-interior; those exchanges are internal to the we: we have shared-inside-interiors.

The point is that with most forms of authentic hermeneutics, I attempt to know and understand the interiors of another holon, another sentient being. I come to understand "you" as an "I," not an "it." This, for example, is the essence of Martin Buber's *I/thou relationship*, where I treat you as a *thou*: a unique and valuable individual in a dialogue grounded in shared horizons—as opposed to an I-it relationship, where I treat you as a utilitarian object or "it," like a pile of garbage. (As is well known, human barbarity is always preceded by convincing oneself

that the Other is an "it," not a "thou," and hence can indeed be treated exactly like garbage, which one might dispose of by using, say, a gas incinerator.)

The transcendental growth of "we's" (to ever-wider circles) is the history of an unfoldment of "it" to "you" to "thou" to "we"—where I first meet a strange, alien, or foreign holon (human or nonhuman) only in its outside-exterior dimensions (UR) and thus treat it like an "it" or instrumental object; but then advance to the understanding that this holon (all the way up, all the way down) is a sentient being which therefore possess a real interior, an "I" or proto-"I" (UL), and thus this "alien" holon, or this holon merely in its otherness, is starting to be perceived not just in its third-person dimensions of being-in-the-world but also in its second-person dimensions (not merely as an "it" but a "you"). That "you" therefore begins to exist in, or disclose itself as, an "other" or "outside" not merely in my *exterior* spaces, but an "other" or "outside" in my *interior* spaces, an "other" that can be approached as a *potential partner* in mutual resonance, felt meaning, communication, or intersubjective exchange of one sort or another.

If that resonance succeeds at any level, then this foreign "you" (or outside-interior) has become a "thou" which is part of the newly-disclosed "we" (or shared-inside-interiors; first-person plural [LL]). It is not that I and this other holon have been put together and forcefully glued into some sort of relationship, but that we have mutually enacted and brought forth this particular ripple in the ocean of our own intersubjectivity: *our intersections are dimensions of each other* in the moment of the I-thou touch. We are not a single super-I (or an imperium super-agency that controls everything you and I do), but an extraordinary, amazing, mysterious "we," where two souls intersect and find in that intersection, not a single dominant I, but deeper aspects of their own I's, found not above and beyond, but within and together.

That is the purpose of all authentic hermeneutics.

Solidarity

Each of those steps—"it" to "you" to "thou/we"—is in many important ways a developmental *unfoldment* that depends on the capacity for increasing depth in the subject (or "I") attempting the understanding. But that brings us directly to our next, and in some ways most important, topic. We will start the discussion with humans, but quickly move to holons in general.

The assumption behind most forms of hermeneutics, collaborative inquiry, and participatory interpretation is that two (or more) subjects can in fact reach some sort of *mutual understanding.* The assumption that both subjects make in communicative exchange is that they can indeed share, to some degree (and in an accurate-enough fashion), the feelings and prehensions and viewpoints of the other subject. That is, they *necessarily* assume that the Kosmos contains a space called first-person plural (or "shared-inside-interiors").

(As Habermas and others have explained, this assumption—called *similar signification*—is necessarily behind communicative action, or else the subjects would not engage it in the first place. If you know that there is no way to even vaguely understand an other, you won't even try, will you? The fact that you try therefore means that in some fashion you assume the possibility of similar signification. Similar signification does in fact exist because of various inter-holonic and trans-holonic realities.[48] As even Derrida acknowledged, transcendental signifiers do exist, or else, as he said, we would not be able to translate various languages. I will simply take it as the case that many people are already communicating with each other, asserting that they understand each other well enough, and hence we need to find a place in the Kosmos for what is already happening in any event. When a postmodernist like Lyotard denies the existence of mutual understanding, he assumes that we know what he means by that, yah?)

What is less often appreciated is that there are at least two important forms of similar signification. That is, there are two important aspects of mutual understanding, which we will call horizontal and vertical.

Horizontal signification is commonly known as **solidarity**, which is perhaps *the* central notion in hermeneutic validity claims. Solidarity can be traced to theorists such as Heidegger but finds perhaps its most complete statement in Hans-Georg Gadamer. Solidarity is designed to answer the question, If I am interpreting a text and attempting to understand what it means, how do I know if I am right or wrong?

The dilemma of interpretation is this: I am faced with a text that I need to interpret, but there are no empirical guidelines. Take the play, *A Streetcar Named Desire*. What is the meaning of that text? Science cannot help me here, because Blanche Dubois (who has always depended on the kindness of strangers) is not a real person but a symbolic or imaginary person, and thus nothing I can do in the laboratory will help me out.

I must interpret the meaning of *A Streetcar Named Desire*, but—and this is where it gets tricky—not every interpretation of *A Streetcar Named Desire* is correct. That drama is definitely NOT about a family picnic in Hawaii. That is, even an imaginary play has a certain type of validity claim (because all holons are situated in at least four quadrants). So what is *Streetcar* about, and how do I know if I am generally right or generally wrong in my interpretation? Although there is no one correct interpretation of *Streetcar*, there are plenty of wrong ones—and how do I know which is which?

In hermeneutics, the "text" (such as *Streetcar*) can actually mean anything that must be interpreted; that is, it is *symbolic* in some sense—it is a series of signs that stand for, represent, express, or enact certain realities, and I need to *interpret* (or decode) those symbols in order to understand the realities they indicate. "The text" might be an actual book (e.g., *Anna Karenina*), or it might be last night's dream, or it might be your interiors as I attempt to understand you, or it could be my dog's interiors as I attempt to understand him. Indeed, most of the important things in life are texts, not facts, and thus they demand interpretation, not proof.

The early hermeneuticists, such as Dilthey, maintained that you and I can reach some sort of understanding if we share various types of *life experiences.* For example, if I say, "Yesterday

my dentist performed a root canal, and the pain felt like it was going right through the top of my head," you will probably be able to understand what I mean if you, too, have had a root canal. Because we share that particular life experience, we can reach a mutual understanding by using abstract signs to refer to those common experiences. Abstract signs and symbols work just fine, or fine enough, if you and I have had similar experiences; but if you have not had a root canal, it will be much harder to explain what I mean, and my abstract signs won't carry much meaning.

Although that is true enough as far as it goes, the early hermeneuticists were still caught in a type of modernist prejudice, namely, that symbols are essentially *representational*—that is, they represent various types of experiences, and thus empirical experiences can anchor interpretations. But the postmodern turn brought a further complication: many symbols do not represent a pregiven reality but in fact create realities, enact worlds, bring forth experiences. Signs don't just represent realities, they enact realities; and I must be able to interpret signs in order to understand the realities they enact. There is no single pregiven world, such that a shared experience of aspects of that world could anchor our interpretations. Rather, there are different worlds enacted via different cognitive and cultural backgrounds, and the only way to anchor interpretations is therefore some sort of *shared subjectivity* (or **intersubjectivity)**, and NOT merely some sort of *shared objectivity* (or interobjectivity). And with that insight, modernism gave way to postmodernism: all holons have a Lower-Left quadrant.

Gadamer gave voice to this intersubjective reality with his notion of **solidarity**. To say that interpretations are not grounded in shared experiences of an objective reality is *not* to say that they are not grounded at all. There are still various sorts of good and bad interpretations (*Hamlet* is not a play about the Philippines), but these interpretations, to paraphrase Gadamer, are _grounded in shared intersubjective traditions of cultural solidarity_. "Tradition," in this sense, does not mean some sort of rigid, archaic, stultifying conventions, but rather the rich ground of mutual prehensions and shared horizons that allow any sort of communication and interior-to-

interior intimacy to occur at all. Solidarity is the luxurious texture of a history of "we's" that have reached some sort of mutual understanding.

When my interpretations resonate authentically with this solidarity, then I have some way to ground my interpretations (i.e., my hermeneutic *validity claims* can be *redeemed* in the circle of intersubjective solidarity). Like truth (UR), truthfulness (UL), and functional fit (LR), cultural meaning (LL) has cash value that can be exchanged in the real Kosmos, simply because all holons have at least four dimensions of being-in-the-world.

Of course, to say that hermeneutic or interpretive truths are grounded in cultural solidarity or tradition is not to say that new (and "nontraditional") interpretive truths can't emerge. Each moment or actual occasion is include-and-transcend, or old and new, or prehension plus novelty, or karma plus creativity. Every moment of existence surprises the Kosmos with a bit of novelty that has no grounding in any tradition whatsoever. It is simply that even those moments of novelty have to arise and tetra-mesh with existing realities or be erased altogether; and thus each novel addition must mesh to some degree with existing intersubjective meanings or else it would have no significance (and no signified) at all. (I can jump out of my skin, but only a little bit at a time….)

Thus, a specific path or tradition, worn into the AQAL lattice in its intersubjective dimensions, is necessary for communication of any form to be communicated at all: hence, solidarity. This is as true for a pack as wolves as for a religious tradition, as true for an ant colony as for a scientific discipline, as true for reproductive chemical networks as for philosophical schools of thought.

In short, intersubjective solidarity refers to various forms of Kosmic habits in the Lower-Left quadrant, the cultural backgrounds—the waves of "we's"—that are the necessary media of all communicative exchange. It is *solidarity* that allows me to be "in the interpretive groove." As noted, the validity claim here is not one of objective truth, subjective truthfulness, or functional fit, but **intersubjective justness** or **appropriateness**—and that is established via the Kosmic

habits of the cultural background or cultural-nexus memory, whose *exterior correlates* include various types of collective morphic fields, ecosystems, and social systems, but whose *interiors* include various types of intersubjective feelings, meanings, cultural backgrounds, habitus, and prehensive solidarities that alone can anchor symbolic meaning (and therefore communicative exchange). Solidarity is the interior feel of morphogenetic fields collectively plowed in a particular circle of togetherness.

Thus, if you want to know some of the many meanings of *A Streetcar Named Desire*, it will do no good to use empirical science and look around in the sensorimotor world. There is no Blanche Dubois out there (nor meaning, value, care, etc.). Blanche Dubois exists in intersubjective spaces of interpretive meaning. To have access to those phenomenological spaces, you need (among other things) to learn a language and immerse yourself to some degree in the cultural traditions that brought forth those meanings. You must have access to some of the solidarities that anchor the symbolic meanings in that text, and then you must enter or be "inside" the hermeneutic circle of the text itself (such that your *intersections* with the text are *internal* to its possible worlds of meaning). Otherwise, as we say, "It's all Greek to me"—all symbols without any meaning.

"**It's all Greek to me**"—that is the key to solidarity and hermeneutic validity. Unless you stand in some sort of solidarity with the person who is speaking to you, you will never understand a word said. Take language itself. If you are *inside* or within the horizons of the Greek language, you can *see* some of the worlds *enacted* by that linguistic intersubjectivity (i.e., the shared linguistic signifiers will have some sort of shared signifieds: the syntax will have a semantic [see Excerpt E, subheading "Integral Semiotics"]). Otherwise, all you can see is the syntax (or exterior signs), not the semantic (or interior meanings), and thus those enacted worlds, which cannot be seen empirically, will not be seen interpretively, either. I will not be able to see Blanche Dubois in the sensorimotor world, but I won't be able to see or understand her in my interior world, either. It's all Greek to me.

We have seen that to be inside a particular hermeneutic circle means that each member's *inter*-subjective occasions are internal to the nexus-agency of the circle, which simply means that the *internality* of the circle is the *solidarity* itself—that is what it means to be "within" a cultural horizon. The solidarity I feel with you is a shared intersubjectivity, a shared inside-interior, a first-person plural "we."[49] This solidarity is the heart of a we-culture—the communal or relational culture—and that culture begins leaving traces of its own existence deposited as Kosmic habit—it leaves an interwoven karmic nexus (carried in, but not as, the prehensions of its members)—and thus it begins to form a *cultural tradition* that acts as the grounding of authentic communication within that culture.

Solidarity is the interior culture of an exterior system or social holon. A married couple begins forming its own culture with its own solidarity; a group of friends begins forming its own culture with its own solidarity; a pack of wolves begins forming its own culture with its own solidarity; an ecosystem begins forming its own culture with its own solidarity; a philosophical movement begins forming its own culture with its own solidarity; a tribe begins forming its own culture with its own solidarity; a coral reef begins…, a flock of geese begins…, a nation begins….

Of course, solidarity, as it is commonly used, refers to the cultural traditions of humans. But perhaps we can see that solidarity in its most general sense simply means the inter-interior or intersubjective dimensions of the Kosmic habits laid down by any group of holons acting as a group.[50] Cultural solidarity is the Kosmic karma deposited in the Lower-Left quadrant of the dynamically unfolding AQAL matrix, traces of the many ways we touch as we move through our own togetherness.

When it comes to a holon's capacity to exist, or to reproduce itself through time—in short, when it comes to Kosmic karma in all four quadrants—we find, in the *Upper-Right quadrant*, genetic inheritance, DNA replication, formative causation, individual autopoietic regimes, morphic resonance, gross/subtle/causal mass-energies, and so on; in the *Lower-Right*

quadrant, we find systems memory, sustaining ecosystems, replicating social systems and institutions, dissipative structures, social autopoiesis, reproducing chemical networks, chaos and complexity dynamics, modes of techno-economic production, among others; in the *Upper-Left quadrant* we find prehension, prehensive unification, personal identity and memory, ongoing felt-awareness, etc.; and in the *Lower-Left quadrant*, we find cultural solidarity, habitus, path traditions, intersubjective memory, mutual prehensions of "thou/we," and the collective interiors (or shared inside-interiors) of mutual grooves in the AQAL matrix laid down by any two or more holons existing within overlapping horizons.

In short, cultural solidarity is how all sentient beings touch each other from within; it is the felt interior of all exterior systems; it is the heart of why we are in this together, endlessly; it is the face of God when he can no longer stand being alone; it is the exuberance of the Goddess when she dances naked for all to see—the mystery where two souls touch each other and *know that they have done so*, which points unmistakably to the secret meaning of any "we": the Spirit that hides itself in the heart of each I, begins to find itself by finding other I's.

Vertical and Horizontal Solidarity

There are, as we were saying, two types of solidarity—horizontal and vertical. We just gave an overview of solidarity as it is usually understood, which is a type of *horizontal solidarity*, or how two "I's" become a "we" within the same horizon of depth. But clearly, if two holons are to reach some sort of *mutual* understanding, they have to be able to share not only a common cultural solidarity, but a *similar level* of cultural solidarity. It will do no good if you and I live in the same social system or ecosystem, but I am conventional and you are postconventional, or I am blue and you are yellow. Under those circumstances, we will never reach a *mutual* understanding about your yellow ideas, desires, and needs, because I literally cannot see yellow phenomenological realities—they are all "over my head"—they are all Greek to me. Even if we share the same language with the same syntax, some of the semantic realities that can be carried

by that language, such as yellow thoughts and ideas, will still be like a foreign language to me. I will hear the words (i.e., the written or spoken signifiers in the system of syntax), but never grasp their actual meaning (i.e., I get the signifiers in their syntax, but not the signifieds in their semantic [see "Integral Semiotics," Excerpt E].)

On the other hand, if you are yellow and I am blue, and we exchange blue symbols, words, or tokens (blue signifiers), then we can usually reach some sort of mutual understanding at that level of depth, because we both have access to the blue probability wave in the AQAL ocean. Because of that, we both have access to an intersubjective field of mutual prehensions through which a cultural solidarity can resonate, serving as a background cultural context within which we can exchange mutually understandable (and decodable) symbols.[51] You and I can therefore enter a blue worldspace (as given form by the cultural context we share)—and thus we can participate in cultural solidarity at that particular locale in the AQAL matrix (we can resonate both vertically and horizontally).

If we then discuss blue values (or phenomena arising within the event horizon of the probability space of blue)—such as the importance of family values, the need for a national defense, or the importance of religious tradition—you and I will at least be able to understand each other, even though we might disagree about all of those items: both of us can at least *see* what we are talking about (whereas I cannot see yellow phenomena at all, let alone agree or disagree about them).

In short, you and I can become members of a "we" because our intersections can become internal to a nexus-agency at the same level of depth (and thus we can enact and bring forth a phenomenological event horizon of a first-person plural worldspace, which indicates the probability of finding our exchanges in state of a similar signification or internal solidarity.)

We saw that mutual understanding involves the exchange of third-person signifiers (or "its")—like the words on this page—in an attempt to understand a second-person individual (or "you") as having a first-person subject (or "I"), so that your "I" and my "I" can intersect in a first-

person plural "we." This entire process implies that there is *some degree of access* to those first- and second-person realities. If an important part of your awareness is vibrating at the yellow probability wave, then in order for me to understand *you*, I must have some sort of access to yellow in myself, or there will be no communication of any sort at that wavelength.

In ways we will continue to explore, a major difference between a first-person reality and a third-person reality is that first-person realities are known by *acquaintance*, whereas third-person realities can be known by *description*. "Yellow," as an actual first-person phenomenological space, cannot be known by description, only by acquaintance. If I am at blue, and I do not have access to yellow *in myself*, then the yellow part of you will remain an "it" to me (remain "all Greek" to me), because I will not be able to convert that "it" into a "you" or "I" in any authentic fashion. Part of *you* will remain "over my head" and thus at most appear as a series of not-understandable "its," or words and behaviors without real meaning for me. Because you and I lack *vertical solidarity*—or the same depth of exchange—part of you will remain forever inaccessible to me (unless I myself transform to yellow).

Although blue cannot understand yellow, yellow can understand blue—yellow can comprehend blue but not vice versa (the typical asymmetrical gradient in all holarchies). Thus, both you and I can be a *member* of a blue culture; but only you can be a member of a yellow culture. Because I am not accessing a yellow phenomenological space in my own I-awareness, there is no way for our intersections to intersect in a yellow domain: we cannot actually run into each other in that world.

(For a discussion of this theme, see "On Critics, Integral Institute, My Recent Writing, and Other Matters of Little Consequence" [posted on wilber.shambhala.com], as well as the work of Fred Kofman referred to in that interview. We will return to this important notion later, when we discuss the difference between first-person methodologies that require acquaintance—e.g., phenomenology, hermeneutics—and third-person methodologies that can work with description—e.g., systems theory, structuralism).

Our point for now is that hermeneutics, to be authentic, requires (among other things) a similar depth of unfoldment in both holons. Generally speaking, a senior holon can comprehend a junior holon (in itself or in others), but not vice versa. A cell can comprehend a molecule, but a molecule cannot comprehend a cell; yellow can comprehend blue, but blue cannot comprehend yellow. (The reason is that a senior is *external* to a junior, but the junior is *internal* to a senior: "all of the lower is in the higher, but not all of the higher is in the lower"—and thus the higher can rather literally *com-prehend* the lower, but not vice versa.)[52]

Thus, much as pluralists attempt to deny it, a developmental gradient is built into all hermeneutics and all collaborative inquiry: depth only understands similar depth. Outside of its own range of depth, a holon is outside of both the morphic resonance (RH) and the empathic resonance (LH) of other holons in its probability space. Particularly when it comes to holons that are "over its head," there is no mutual understanding because there are no shared signifieds (see Excerpt E, "Integral Semiotics").

Vertical solidarity, then, means that two holons *share a similar depth* or level of consciousness, and accordingly this level of consciousness can form part of the fabric of cultural or horizontal solidarity that is prerequisite for mutual understanding. In order for intersubjectivities to be actual intersections, they must collide in a real phenomenological space: they cannot be near misses but must be direct hits or prehensions. This means that the intersections or shared signifieds that are internal to the "we" must be of the same general depth or else they will slide over and under each other and fail to mutually resonate. Atoms and cells cannot have a discussion about the trials and tribulations of being a cell.

Horizontal solidarity refers to cultural solidarity as it unfolds at similar depths—it simply refers to all the things that can "horizontally" or "translatively" happen to cultural intersubjectivity at a given probability wave. There is, for example, the problem of *cultural legitimation*, or how a particular solidarity maintains the allegiance of its members (which we discussed briefly in Excerpt A).[53] Whenever we say that "members are inside a hermeneutic

circle when their intersections are internal to the nexus-agency of that circle," it is always implied that the circle is legitimated (otherwise, there is no solidarity of understanding). *Legitimation* is a crucial concept that we will return to time and again throughout this presentation.

Solidarity: Conclusion

Solidarity in general simply means a shared horizon (or shared inside-interiors, first-person plural "we"). **Vertical solidarity** means that two or more holons share a similar depth in the AQAL ocean: in order for mutual understanding to occur, holons must be surfing similar developmental waves. Holons at different depths can develop various types of understanding of each other (as we will see), but in order for that understanding to be authentically *mutual*, similar-depth resonance, or vertical solidarity, must be a part of the intersubjective fabric. **Horizontal solidarity** refers to the varieties of solidarity occurring at any given depth.

Genuinely mutual understanding therefore demands the presence of both vertical solidarity (or **shared depth**) and horizontal solidarity (or **shared horizons**). In the AQAL matrix of primordial perspectives, we need to share not only perspectives but the same height or depth of those perspectives, or again, there is no phenomenological space in which we can collide.

When both shared depth and shared horizons are present, we can speak of **adequate resonance** (or genuinely overlapping intersubjectivity). Unless otherwise stated, henceforth by **cultural solidarity**—or simply **solidarity**—we will mean *adequate resonance*, or the presence of both vertical and horizontal solidarity. In order for you and I to be able to evoke an understanding of each other's interiors, the tokens (or signifiers) that we exchange must be anchored not only in a horizontal cultural context (shared horizons), but in a vertical developmental depth that allows a corresponding phenomenal world (or signified) to be called forth.

All the way up, all the way down. Two or more holons can communicate if and only if they share some slice, however small, of cultural solidarity (in both vertical and horizontal

dimensions)—if, in other words, there is some sort of adequate resonance. Atoms register each other's existence because they share not only exterior surfaces but *atomic solidarity* (i.e., if atoms have exteriors, they must have interiors; and if they have exteriors in common, which they obviously do, they also have interiors in common—and that is their inter-interiority or proto-intersubjectivity, or atomic culture and atomic solidarity). If atoms have prehension or proto-experience, then the form of their inter-interiority would likely include *harmonic resonance* with each other, vibrating together not only in their exteriors but in their interiors—the registering of one is the registering of the other.

But my point is not to argue whether intersubjectivity or inter-interiority goes all the way down—I have done so in a dozen books. I am right now simply assuming that it does, and I am therefore suggesting that all holons—including quarks, atoms, molecules, cells, organisms—would be expected to possess not just exterior registration of each other, but interior vibration or harmonic resonance with each other.[54] In my opinion, there is simply no way to end the sliding chain of signification unless at some point it smacks into tele-prehension of one sort or another. Exteriors cannot register each other without interiors, and interiors cannot register each other without teleprehension, or direct depth-to-depth resonance. Interiors cannot merely be *reconstructed* by *exchange* of *exterior* signs—that makes no sense whatsoever. The entire string of communicative signals, at whatever level—atoms to ants to apes—can only get started (and stopped) with interior resonance.

Molecules register each other because they share not only exterior surfaces but molecular solidarity (and molecules also participate in atomic solidarity, since atoms are now *internal* parts of molecules and *continue to resonate* with other atoms or similar-depthed holons). Cells share cellular solidarity *and* molecular solidarity *and* atomic solidarity, and so on. AQAL meta-theory summarizes this as: all holons have a LL dimension, all the way up, all the way down.

Throughout these discussions I will continue to repeat that if you are uncomfortable with pushing interiority or inter-interiority all the way down, then please feel free to pick up the

discussion at whatever level you believe interiority emerges. What is sometimes useful is, even if you believe that interiority or prehension does not emerge until higher forms of evolutionary unfolding, you can still trace all of their *precursors* in the four quadrants. That is, you can still make use of something like figure 1 in order to situate various perspectives and dimensions relative to each other, even if you don't believe that consciousness itself emerges until quite late in the game. The quadrants in the AQAL matrix can be read as precursors up to the point you feel that perspectives emerge. Presumably, by the time we reach humans, we are acknowledging an intersubjective dimension of being-in-the-world, whose existence is signaled by cultural solidarity and mutual understanding in its many forms.

(If you are comfortable pushing higher, at the other end, so to speak, *Kosmic consciousness* is the awakening of the ultimate Self or nondual I-I of all holons, which brings with it the full recognition of the *Kosmic solidarity* or ultimate We of all holons, a recognition of that infinite depth or nondual Spirit that grounds all intersubjectivity and solidarity, as disclosed and illumined by causal and nondual paradigms. But again, if you are uncomfortable with pushing consciousness higher than its typical forms, feel free to not only start the account at a certain level, but end it there as well. IOS can fruitfully serve to integrate the quadrants—or first-, second-, and third-person perspectives—at whatever level you feel they exist. In my opinion, the universe is composed of sentient beings, and hence the universe is a self-organizing, self-reflexive matrix of perspectives, all the way up, all the way down.)

In general, then, **cultural solidarity** represents the *shared inside-interiors* of Kosmic habits (the Lower Left)—cultural pathways cut in AQAL space, shared feelings in the Kosmic groove, a history of communal prehensions and harmonic empathies felt from within. Resonate with those, and you have truth as intersubjective meaning, justness, rightness, and appropriateness, not merely objective representation or systems functional fit. Accordingly, another way to state one of the four major tetra-selection pressures is that all holons must mesh with some sort of solidarity or face extinction—and that is the real meaning of the impact of the

intersubjective background on subjectivity. (See the following endnote for *Excursus: Solidarity and Post-Kantian Internality*).[55]

In short, the entire spectrum of holons exists in waves of solidarity with similar-depthed holons everywhere, not only connected *on the exterior* by various types of physical causality, interactions, morphic resonance, formative causation, systems memories, chaos and complexity dynamics, but also connected *on the interior* by correlative sorts of cultural solidarity, tele-prehensions, shared feelings, and empathic resonance. Quadratic reality allows knowability of the Kosmos, not only because of a shared Whiteheadian prehensive internality,[56] and not only because of various types of shared exteriors and systems interactions—but most especially and extraordinarily because of a deeply shared slice of Kosmic solidarity, which is the ultimate inside story.

Where Perspectives End

Such is the miracle of a "we," the intersection in the heart of the Kosmos where all sentient beings know each other from within, resonating with a mutual aliveness arising in a sea of electric luminosity. As one I deepens into its own infinity, it subsumes its lesser I's and pretensions, opening onto its own true Self, its Original Face, which is nothing other than the radical First Person of the entire Kosmos, the First Person looking out through all first persons, high or low, sacred or profane—the First Person reading this sentence right now—and thus when I have truly realized or deeply awakened as that First Person, I have found the Self of all.

As the I relaxes into the infinite depths of its own primordial awareness, it expands its circle of care to more and more We's, more and more second persons in whom it can see a Spirit shining, in whom it can recognize a first person radiating, hear a God calling, feel a Goddess's grace. As We's get wider and wider, they swallow not other souls but their own lesser incarnations and pitiful intersections, until the circle of care expands to include all sentient beings as such, a luminescent interior thread of loving light that simultaneously touches all hearts from

within its ecstatic intimacy, at which point the one and only First Person finds his one and only Second Person, the hidden Beloved in all domains, the secret sight within every world, and She in turn, now as First, finds him as her Beloved, too.

Every "I" that looks at a "thou" is Shiva adoring Shakti, God gazing upon the Goddess, the Unmoved Mover nonetheless hopelessly in love with the Mother of the World: transparent empty consciousness harboring awe-struck equanimity. As the pure Witness, Shiva does not move, cannot move, because Shakti took his breath away. And so, in turn, every "thou" that is ever seen is Shakti radiating light to the entire universe, a gift of her uncontrollable adoration for the Shiva that is her everything. If you can feel to infinity, then when you are I-I, you are God, and when you are Thou, you are Goddess: every Seer is only Shiva, every seen is only Shakti, in the secret, ecstatic, erotic union that is this and every moment.

The reckless infinity of their enraptured embrace enfolds all third persons in the circle of passionate care, the shocking recognition of radical One Taste, at which point, it has been truly noted, every I in the entire Kosmos becomes a radiant God, and every We becomes God's sincerest worship in loving solidarity, and every It, God's most gracious temple, woven only and always of the luxurious textures of a Spirit come to reclaim the interiors of its own manifestation, a Spirit none other than the one reading this sentence at this very moment, and a reclamation none other than a confession of who and what you always already are.

In that moment, which is this moment, it is truly finished. And until that moment, which is this moment, what dream walkers we all are! The whole point of walking through our indigenous perspectives is to walk through the dream and awaken to the One for whom these perspectives are infinite reflections of its own Original Face. The only reason that you can, in fact, take all of these perspectives is that you are none of them, but rather the vast Emptiness and Openness in which they all arise, and the vast Fullness or Radiance through which they all shine.

The universe is composed of perspectives that you have taken in order to play a Kosmic Game of chess with yourself. The Kosmos is composed of sentient beings, each of whom is the

one and only, nonlocal and nondual, First Person to the perspectives arising as its reflections, touching and loving its one and only Second Person, courting each and every Third Person, all of whom are, in turn, the one and only First, who is reading this right now. Your very own Original Face, the Face you had before the Big Bang—the I AM that I AM—is still looking out through your eyes, even here and now.

Remember?

Well, if not, then you have slammed your foot down in the cascading stream, and all around you has sprung up the AQAL matrix of your own indigenous perspectives….

Appendix A. Future Excerpts from *Kosmic Karma and Creativity* to Be Posted:

<u>Excerpt D</u>: Zone #2: The Outsides of the Interiors

The Outsides of an Interior Reality

Structuralism, Cultural Anthropology, Cultural Studies

A Third-Person Approach to First-Person Realities: Structuralism

Acquaintance and Description: You Had to Be There

Examples of the Social Practice of Adequate Structuralism

Four Steps of Adequate Structuralism

The Form of a Structure: Examples from Robert Kegan, Jane Loevinger, Clare Graves

Structures in Individuals

Developmental Lines or Streams

Basic Levels or Waves

Structures in a Group

The Sociograph

<u>Excerpt E</u>: The Gathering of the Zones

Part I: *Zones #3 and #4: The Insides and Outsides of Exteriors*

Autopoiesis and Systems Theory

The Important Distinctions Begin to Surface

Autopoiesis Is Not Prehension, Structural Coupling Is Not Solidarity

Integration of the 4 Zones

Typical Lower-Right Approaches

Part II: *Integral Semiotics*

The Linguistic Turn

Excerpt F: Integral Post-Metaphysics

Excerpt G: A Comprehensive Theory of Subtle Energies

Upper-Right Inquiry in Zone #4

Actual Occasions in the Upper Right

Subtle Forms and Energies

6 Major Theories/Types of Subtle Energies

Three Connecting Notions for Integrating the Existing Schools of Subtle Energies

A Fourth Connecting Notion

Avoiding Discredited Metaphysics in the Presentation of Subtle Energies

An Integral Theory of the Spectrum of Subtle Energies

Appendix B. An Integral Mathematics of Primordial Perspectives

Let me start this overview by repeating the paragraph in the text where integral mathematics is introduced:

If we call this first event horizon a "first-person experience of first-person realities," we could represent it as **(1p x 1p)**, where "1p" means "first person." That is the beginning of an integral mathematics based not on variables but on perspectives. For those interested, I will pursue this integral math in Appendix B and a series of ongoing endnotes. Honest, you don't have to follow this; it is simply a notional system useful for reminding us to honor all indigenous perspectives; but if mathematical notation is not your cup of tea, feel free to skip these indented sections and pick up the narrative—all you need to know is represented in figures 2 and 3.

Briefly: "1p" is first person, "2p" is second person, and "3p" is third person—meaning actual but nonspecific persons—and "1-p" with a hyphen means a "first-person" perspective, whether that perspective is being taken by a first, second, or third person relative to the person making the assertion (and likewise "2-p" and "3-p"). Thus, for example, if I make an assertion, I would say that I am the first person (1p) speaking to you (2p). But your second person obviously is also an "I" or a first person *from your vantage point*; therefore, if I am making an assertion about you, and in order to honor your perspective, I would have to say that your second person has a first person: 2p(1p)—which means, the first person of the second person I am talking with. Likewise, "he" is not merely a third person (3p), but a third person who is also aware and prehensive—3p(1p)—which means: the first person of the third person I am talking about.

Thus, if I am aware of you, it is not merely **1p x 2p**, but rather, my first person is aware of you, which has its own first person: **1p(1p) x 2p(1p)**, which means, my first person is speaking with your first person.

Of course, I can approach your consciousness as a *subject* in dialogue or an *object* to be studied—that is, I can be aware of your person in either a first-person (1-p) mode or a third-person mode (3-p), among others—thus, **1p x 1-p x 2p**, for approaching you in a first-person mode, and **1p x 3-p x 2p**, for approaching you in a third-person mode. Expanding each of those terms in the way just mentioned—where you are not just 2p but 2p(1p)—would give us: **1p(1p) x 1p(1-p) x 2p(1p)**, which means: I have a subjective view of you, or, spelled out: my first person knows, in a first-person mode, your first person; and **1p(1p) x 1p(3-p) x 2p(1p)**, which means, my first person knows, in a third-person mode, your first person, which would simply mean, I am seeing you in an objective fashion, I am taking up (or trying to take up) a third-person stance towards your first person. On the other hand, if I were a scientist trying to study *you* but *only* in a third-person mode, that would be, **1p(1p) x 1p(3-p) x 2p(3p)**, which means, my first person has a third-person view of your third person (or those aspects of you that are only objective and can be studied as an object, such as your mass, energy, biochemistry, etc.).

Now, my first-person view, understanding, or interpretation of you, **1p(1p) x 1p(1-p) x 2p(1p)** (which means, my first person has a first-person view of your first person), may or may not match your view of yourself, **2p(1p) x 2p(1-p) x 2p(1p)** (which means, your first person has your first-person view of your first person). If those two perceptions do match, then we have

1p(1p) x 1p(1-p) x 2p(1p) = 2p(1p) x 2p(1-p) x 2p(1p)

which means, within the elements indicated, my first-person understanding of your first person equals your first-person understanding of your first person. This is called **mutual understanding**.

The real world is not built of variables over domains whose operations can equal each other in a third-person mode, but rather of perspectives of sentient beings whose mutual reflections can resonate with each other. An integral mathematics of indigenous perspectives is

meant to be a notational system for the real world, which is an Indra's Net of harmonic resonances among sentient beings prehending each other endlessly, and not a grid or lattice of third-person rocks clunking around in geometric space.

Needless to say, this notational system can become quite complex quite quickly. It appears to be an entirely new form of mathematics that, of course, could take years to develop in its full dimensions. I am probably about 3% into this new landscape, but a few very arresting items have already surfaced (I've run around one hundred pages of equations so far, just to see what might be involved). Every now and then in the coming months (and years) I will post or publish a few excursions into the mathematics of perspectives, for those interested in such. Of course, the abstract portion of mathematics is notoriously a young male's game (the average age of the discoverer of break-through mathematical insights is 23: abstractions backed by raging testosterone seems to be the ticket here). But perhaps I can shed enough light on the initial stages of a sentient mathematics to get others started; and in giving a middle-aged version, it might be in a form diluted enough to be vaguely interesting to others who are also at something of a less-than-mathematically-zenith pitch.

To begin with, and with reference to the earlier equations, we need to add singular and plural forms of each of those terms (e.g., first person plural is **1p*pl** ["we" or "us"] and hyphenated first-person plural is **1-p*pl** ["our"]). For example, "I think we agree that George is a fine person," one version of which is: **1p(1p) x 1p*pl(1-p*pl) x 3p(1p)**, which means, my first person has a perception of our (first-person plural) perception of George's first person. Naturally, you have *your* understanding of how *we* see George, **2p(1p) x 1p*pl(1-p*pl) x 3p(1p)**, which means, your second person has a perception of our view of the third person's first person. If *you* agree with *my* view of how we see George, then:

$$\textbf{1p(1p) x 1p*pl(1-p*pl) x 3p(1p) = 2p(1p) x 1p*pl(1-p*pl) x 3p(1p)}$$

The whole point of this type of mathematics is that, in the real world, holons (sentient beings) are *connected to each other* not merely by exterior *topographical surfaces* that can be represented as quantitative variables and abstract operations in mathematical equations, but by interior resonances, felt meanings, and shared perspectives, which can be represented by overlapping circles of qualitative event horizons suggested in the terms of an integral calculus of indigenous perspectives. Integral math is simply a tracing of what happens when sentient beings touch sentient beings: there is a first-, second-, or third-person perspective on first, second, and third persons indefinitely: a 123 of a 123 of a 123 of a 123…, which is why the Kosmos is constructed of perspectives, not perceptions, not events, not processes, not webs, not systems, for all of those are perspectives before they are anything else.

Moreover, it appears that when those multi-person terms in the integral mathematics are all *merely* third-person terms, then in many cases the integral calculus *collapses* into typical abstract *spaces* captured in the various mathematics of surface representations (from Boolean algebra to differential calculus to imaginary numbers).

What is so interesting about this is that the *pronouns* in language itself—which capture the reality of first-person, second-person, and third-person perspectives (e.g., I, we, him, her, she, they)—actually embed a universal integral mathematics in their own structure. A *pronoun* is not an actual person but a relative perspective that all actual persons can adopt. In the real world, I cannot be communicating to somebody if there are no second person anywhere; conversely, any time I take up a stance, a perception, a feeling, a view, an awareness, it is always already situated in relation to other actual sentient beings. These relationships are captured in pronouns, which, as the word itself suggests, are pro-nouns or even pre-nouns: something prior to nouns that all nouns must follow. The pronouns refer to positions/perspectives that sentient beings inhabit by virtue of existing only in a world of other sentient beings. The pronouns do not refer to actual people— they do not refer to John, Paul, George, or Ringo—but to the *perspectives* that all proper nouns (John, Paul, George, or Ringo) have available to them, universally.

A Nepalese has a first-person stance just as much as a New Yorker does. If a wolf is signaling another wolf about a prey they are hunting, that wolf is necessarily in a first-person stance to the other or second-person wolf about the prey (or third person). If a bacterium is signaling another bacteria using chemical messengers, that *already* is a first-, second-, and third-person situation.

Following Peirce, I have in the past defined a sign as "any aspect of reality that stands for another, to another." What that actually means is that first-, second-, and third-person realities are built into any communication system whatsoever, all the way up, all the way down. In other words, there are no realities that are not always already perspectives.

Because these perspectives, as they are captured in the pronouns of language, are abstractions to some degree (namely, "I" does not necessarily mean Ken Wilber, but any subject *anywhere*; and "he" does not necessarily mean Sue, but any third person *anywhere*), then *language already embeds a universal mathematics*. The relations among pronouns are relations among sentient beings wherever they arise. They are universal in that sense. These relations are therefore abstract, in the sense that they are not tied to any specific noun, and so they embed a universal or context-transcending aspect; but they are abstractions that only make sense or have content when inhabited by actual sentient beings. Call these abstract relations "demi-abstractions." The point is that natural languages have secreted within them a series of demi-abstractions that are a mathematics of the real world.

These relations (or demi-abstractions) are the primary domain of an integral mathematics. This is a naturalistic mathematics that, in keeping with a post-metaphysical sweep, lends itself to real Kosmos representations, not dissociated ontological structures.

But, as early suggested, if 1p and 2p are all collapsed to 3p, then the typical flatland, abstract spaces dealt with by ordinary mathematics come into view. In other words, the whole of typical abstract mathematics seems to be a limit case of an integral mathematics when the positions of the integral math are gutted of sentience and represented in their third-person

dimensionality only. As usual, I am not saying those third-person dimensions are not there or are not real; they are merely one slice of a bigger Kosmos.

One of the most interesting items about this Kosmic mathematics, or a mathematics of primordial perspectives, is that, in order to make an assertion, one must state the relation of the assertion to the sentient being making the assertion. That is to say, it is not merely that a first person sees a third person (that is still monological; that still embeds a prejudice that you can have perception or feeling on their own; but there is no such thing as feeling, perception, awareness, or interpretation—those are always already within perspectives). Integral math forces us to be honest about this. We have to say, not that <u>a</u> first person sees <u>a</u> third person, **1p x 3p**, but that *my* first person sees a third person, **1p(1p) x 3p**; if that third person is sentient, then I am seeing a third person who is also a first person in his or her own right: **1p(1p) x 3p(1p)**, and that third-person first person is a third person only in relation to me, who is making the assertion.

In other words, I must always situate assertions in relation to the speaker of the assertions. This is what makes integral mathematics so novel, and also what prevents demi-abstractions from spinning out of the real world and into merely abstract or third-person third person realms, 3-p x 3p(3p)—not that those aren't there, only that they are third-person surfaces of the rest of the world.

As one begins "running the equations" of this integral math, even if you trace out elaborate relations of perspectives to, say, the 7th person degree (which is as far as I have taken it, and probably can take it), nonetheless ALL of the equations remain situated with reference to the first person making the equations or claims. If I am attempting to trace what that fourth person said, or that fifth person, or that sixth person, I must still assert them in the form, for example: 1p(1p) x 5p(1p), or my first person perceives the fifth person (who has a first person in his or her own right). Never will the integral math allow me to make an abstraction, only a demi-abstraction, and thus all universals are always already situated among sentient beings, who never

have perceptions or feeling or consciousness, but only perspectives within which perceptions and feelings and consciousness arise.

In the above equations, notice that we had three basic terms—for example, my subjective opinion of you: **1p(1p) x 1p(1-p) x 2p(1p)**, which means, my first person has a first-person perception of your first person. In each case where the integral math is taken to three terms like that, it turns out—in retrospect, or after the fact—that the first term defines a *phenomenological space*; the second term, a *mode*; and the third term, a *dimension.* That is, the first term is a space in which phenomena arise; the second, the mode in which they arise; and the third, the dimension that is arising.

Thus, the notation that we just gave—**1p(1p) x 1p(1-p) x 2p(1p)**—can also be read: my I-space [1p(1p)] perceives you as a thou or second person [2p(1p)] when I adopt a first-person stance [1p(1-p)], that is, when I adopt the stance of somebody speaking to you as a thou, as a second person who bears a first person or "I."

Or: in my I-space, your first person appears in its second-person dimension when I see you from a first-person perspective. Or: there exists an I-space such that your I-space appears as a second person when viewed from my first-person perspective.

In other words, in assertions such as **1p(1p) x 1p(1-p) x 2p(1p)**, the first term describes the space in which phenomena are arising; the second term describes the perspective that is perceiving/enacting the phenomena; and the third term is the aspect, dimension, or perspective of the phenomena that is arising or being registered in that space. The first term asserts existence, the second, the mode of existence, and the third, the dimension of existence.

Perhaps this begins to suggest that, because *the Kosmos is built of perspectives* (not perceptions, not feelings, not consciousness, not matter—those are all perspectives), an integral calculus can reconstruct this construction of a Kosmos out of perspectives. (This also suggests why an integral or root mathematics is prior to typical mathematics of third-person abstracted abstractions.)

We start with a 1p, 2p, and 3p occasion, arising together. That is, a universe comes into being when a collection of sentient beings arises. G. Spencer Brown (whose *Laws of Forms* we will return to momentarily), famously said that a universe comes into being when an inside is marked from an outside—but that assumption merely embeds the monological prejudice and collapse. Conscious universes do not come into being that way; that is merely an abstraction away from what is always already the case with sentient manifestation. Not only is there is no inside without outside, there is no singular without plural; universes come into being when sentient beings come into being and perceive/touch each other. Thus, inside and outside is always already first and second persons; and singular and plural is always already we's and its. The absolute minimum you need to get a universe going is the four quadrants.

Thus, a universe comes into being, not when an inside is marked from an outside, or a before is marked from an after, but a group of sentient holons arise. Even quarks have prehension, which means, the first quark is not a first particle but a first person. And whatever that quark registers is not a second particle but a second person. There is no way around this. The universe is built of perspectives.

So we start with 1p, 2p, and 3p occasions, arising together, each of which registers the others in its own experiential or proto-experiential fashion—but none of them can register their existence in any way other than as a perspective. That is, there is never a subject that sees an object. There is no pure perception in which one entity sees another entity, for that is *already* a first-person perspective on a second or third person. In other words, there is no real space that is not always already a space-arising-as-a-perspective; therefore we cannot say that occasions (or holons or beings) come into existence and then see each other, because the "seeing each other" and the "existence" cannot be asserted apart from one another. To say that the quadrants arise simultaneously is to say that ontological dimensions and epistemological perspectives are one and the same thing, which is why we often call them dimension-perspectives.

This does not mean "to be is to be perceived," for that implies there is being per se that can be perceived; nor is this to say that perception creates being, for that implies that perception itself exists apart from something perceived. This is rather to say that being and knowing are the same event within the set of perspectives arising as the event. The idea that being and knowing (or existing and prehending) are somehow different things arises only because we shift from one perspective-occasion to the other without realizing what we are doing. There is simply no perception that is not also a perspective, and therefore no appearance of being that exists other than as a phenomenal perspective. (If you are starting to get the sense that the phenomenal or manifest world is an infinite hall of mirrors, that is indeed the suggestion. Samsara is built of perspectives, not perceptions.)

Since space is often taken to be ontological and time epistemological, then in third-person terms this amounts to saying that space and time are not separate but are rather a spacetime continuum. Fleshing that out with AQAL metatheory, we say that the exteriors of spacetime appear topographically as chains of mass-energy interlinked in various networks and systems, while the interiors appear as feelings and awareness interlinked in various cascades of intimacy. But they all arise together as perspective-occasions of the self-reflexive Kosmos (an assertion which is itself a third-person claim arising in this first-person space, but hopefully an assertion that is to some degree arising in a space of mutual understanding, such that my understanding of this and your understanding of this resonate with similar signification).

We were saying that G. Spencer Brown, in his *Laws of Form*, stated that a universe comes into being when an inside is marked from an outside. Brown built his calculus based upon that distinction or that mark ("the value of the mark is the value of the mark; the value of the crossing is not the value of the crossing"). But, as we were also saying, an integral calculus of indigenous perspectives suggests that Brown's formal calculus hides a modernist prejudice, namely, that a singular inside can demark from a singular outside (i.e., a single boundary can be drawn which marks an inside from an outside), whereas not only is there no inside without

outside, there is no singular without plural—that is, if a single anything arises, it arises in the plural; as even evolutionists are coming to realize, "There is no first instance"—which means, when a new something arrives on the scene, what actually arrives is a population of the new something. For example, when the first, say, elephant emerged, clearly there could not be merely one of them; at the least, both a male elephant and female elephant had to arise simultaneously: a population first showed up, not a single entity. (This is, of course, a massive mystery, which we summarize as emergent Eros.)

The simpler point is merely that if we ever get to the point where there is subjectivity-inside and objectivity-outside, there is also and simultaneously intersubjectivity and interobjectivity. Or, as we are used to saying, the four quadrants arise simultaneously. Brown's *Laws of Form*, like Whitehead's prehension, privileges the monological subject, which, at best, can monologically dialogue, not dialogically dialogue.

(Once you get locked into monological spaces of a subject prehending an object, you cannot have simultaneous co-presence or simultaneous prehension, but must build your universe with epicycles of subjects prehending objects which prehend each other, which never actually allows subjects to know each other as subjects, but only as objects of subjects. An integral calculus exposes Whitehead's prehension to be an abstraction, not a demi-abstraction, which is why true intersubjectivity escapes Whitehead; or, as Griffin put it, Whitehead's view is "partial dialogical," not "complete [or integral] dialogical.")

An integral calculus starts instead with the simultaneous appearance of inside and outside in singular and plural (or the four quadrants, or simply a 123 world). That is, we start with a 1p, 2p, and 3p occasion, arising together, each of which registers the others in its own experiential or proto-experiential fashion. That gives us a 123 of a 123 (i.e., a first, second, or third person resonating/reflecting another first, second, or third person—with each necessarily *quadratically* registering the other—which is to say, sentient beings operating within the four quadrants of indigenous perspectives); and as these reflect upon and build upon each other—as evolution

becomes more and more complex and differentiated-integrated—these native perspectives continue reflecting their reflections to greater degrees of consciousness, care, and compassion. By the time we get to a 123 of a 123 of a 123, we find *spaces*, *modes*, and *dimensions* (as briefly outlined above). When we get to a 123 of a 123 of a 123 of a 123, a complex Kosmos not only of the primordial perspectives but of highly elaborated paradigms and practices within those perspectives have emerged and are being engaged by the sentient beings at those waves.

We capture several of those with the 8 major methodologies represented in figure 3, but again, those are simply representative examples.

In other words, starting with the mere assumptions that: (1) a universe arises in singular and plural with insides and outsides, (2) singular insides are prehensive (i.e., panpsychism, or all individual holons are sentient beings), and (3) all sentient beings are situated *relative to each other* (i.e., all prehensions are always already perspectives), then, starting at that point—which might, for example, be a Big Bang or Big Bloom—we can (re)construct the essential features of a Kosmos as an AQAL matrix of indigenous perspectives; and a Kosmos that, in its upper self-reflexive modes, delivers the 8 major methodologies that human beings are already using to illumine the Kosmos that allows them to do so.

This leads me to believe that the integral calculus is useful in elucidating the transcendental conditions necessary for sentience, conditions sedimented in the demi-abstractions embedded in natural languages. In other words, the fact that a matrix of indigenous perspectives eventually delivers the major methodologies already in existence, suggests they are indeed some of the most fundamental, perhaps the most fundamental, ingredients of such a universe.

There are many ways to symbolize all this, and many different dimensions to which it can be iterated. We have been talking about first, second, and third persons (the minimum requirement). A "fourth person" means an actual fourth person (in addition to the first three actual persons), and it also means a "fourth-person perspective," which, although that can be defined in several different ways, means a person who can hold the other three perspectives in

mind. Thus, when we say that there are first, second, and third persons (or simply 1, 2, and 3 persons), that itself is a fourth-person perspective. If we say that a 1, 2, or 3 person sees a 1, 2, or 3 person, that is a fifth-person perspective (i.e., a 123 of a 123). If we say a 123 person can have a 123 perspective of a 123 person, that is a sixth-person perspective (123 x 123 x123). And if we say that a 123 can have a 123 of a 123 seen from its 123, that is a seventh-person perspective.

The integral math as I have developed it to date is a 7th-person perspective of the many ways sentient beings touch—it is Indra's Net viewed to seven dimensions, if you will. Of course, Indra's Net is known in its reality or its Suchness only via a transmental or supramental One Taste, not a mental-perspectival conceptualization. Nonetheless, Indra's Net does manifest in the conventional domain—in fact, the entire manifest realm is said to be Indra's Net of multiple-interconnected dimensions—and, as such, various philosopher-sages have given mental-perspectival descriptions of it (from Plotinus to Aurobindo). Even Gebser's "integral-aperspectival" is actually fourth-person perspectival. However, to my knowledge, Indra's Net has never been described beyond a fourth-person perspective (not even in the *Avatamsaka Sutra*, considered the definitive statement of Indra's Net).

If we attempt to do so—that is, if we attempt to articulate the structure of the manifest world—and we move from the fourth-person version (there exists a 123) to the fifth-person perspective (there is a 123 of a 123), that perspectival operation (denoted by "x"—as in: a 123 x 123) generates an explicit *phenomenological space* (an I-space, we-space, or it-space). Moving from fifth-person to sixth-person (a 123 of a 123 of a 123), we generate a *mode* or perspective (a first-person, second-person, or third-person perspective of 123 on 123, i.e., a 123p x 123-p x 123p). Iterating primordial perspectives once more, the seventh-person perspective brings forth and elucidates a *specific dimension* of that which is being perceived or felt (i.e., a 123p has a 123-p of a 123p x 123/p, which means, for example, that a second person has a first-person view of a third person seen in that person's first-person dimensions—*all of them still situated* with

reference to the first person making the assertion. I will come back to the fourth term in that equation—the symbol "123/p"—in a moment).

Thus is a Kosmos built out of perspectives, with all other "things," "events," and "occurrences" in the Kosmos being generated out of iterations of primordial perspectives, perspectives that arrive on the scene *simultaneously* with whatever it is that arrives on the scene. We can't easily specify exactly *what* it is that arrived on the scene first—that arrived, say, within nanoseconds of a big bang—but we can say they arrived together as permutations and combinations of how they registered each other, pushed each other, bumped into each other, felt each other. If we build a Kosmos out of those possible *perspectives*, and not merely out of those possible particles, systems, or dynamic processes, then we build a universe of sentient beings, not a universe of insentient particles, processes, and networks—notions which *are themselves* nothing but third-person perspectives on the Kosmos taken by certain sentient beings.

An integral calculus, then, is a calculus that honors sentient beings in their AQAL totality, or certainly attempts to. Most mathematical equations—both pure mathematics and chemical, physical, biological, systems, chaos mathematics—simply trace the exterior or topographical surfaces of possible holons across possible spaces, showing, eventually, *how they fit with each other* in some sort of third-person dimensional space. I am not saying those spaces aren't there, but simply that they are the integral calculus stripped of first persons and second persons—stripped of sentience—at which point it collapses into the flatland representational systems found in conventional mathematics, a mathematics that often accurately represents holons in the manifest world—*but if and only if* those holons are viewed only in their third-person dimensions by a first person from that first person's third-person stance—which is why the integral calculus of indigenous perspectives collapses into conventional mathematical forms when the interior spaces are erased from the Kosmos (e.g., collapses into Brown's Laws of Form, and Boolean algebra, and differential calculus, and conventional "integral" calculus, which is merely a sum-total-of-surface-volumes-traversed calculus over the range specified).

Equations in conventional mathematics represent ways that possible surfaces fit together in possible topographical spaces; integral mathematics represents those, plus the ways that possible interiors fit together in intentional spaces, spaces of sentience bringing forth event horizons within whose zones conventional mathematics itself can manifest in the first place. An equation in interior space is a measure of harmonic resonance or empathy between two holons, a registration of how they fit together in spheres of consciousness and not merely circles of geometry. Of course, integral mathematics is itself composed only and merely of third-person tokens, signs, and symbols; but those signs represent first and second and third persons (and fourth and fifth and sixth and seventh), which are not variables but perspectives, and which in the real world appear not as amounts and angles but as sentient beings with shared horizons (whose exteriors are amounts and angles).

Equations in the real world of sentient beings are thus equations of mutual resonance. Even a mathematician, who writes $(x = 3y)$, and shows it to another mathematician, who agrees that in that case, x does indeed equal 3y, is actually asserting the following: my first person has a first-person perception of a third-person abstraction $[(x = 3y)]$, and I believe that this third-person abstraction is, or would be, true for all other persons who looked at it. Therefore, I am asserting that this abstraction is not merely true for me (or my first person), but is true for all other first persons; which means, if I take a third-person view of my third-person abstractions, I still believe that you will agree with me if you look at them in a third-person way yourself—and not only you, but all others who look at this dispassionately or objectively or rationally, will agree with me. I am actually claiming, then, that my first-person perception of my third-person abstractions is really a third-person (plural) perception [which is represented as (3-p*pl)] of this third-person abstraction: **1p(1p) x 1p(3-p*pl) x 1p(3p)**, which means, my first person has a third-person plural view of my third-person algebraic assertion. If you look at my algebra and attempt to take up a third-person (plural) view of it, then: **2p(1p) x 2p(3-p*pl) x 1p(3p)**, which means, your first person has your third-person (plural) view of my first person's assertion (which is the algebra, the

third person we are considering, where "3p" in this case means "the assertion x = 3y," which is the third-person "it" we are discussing).

The heart of the matter is that you might indeed agree with me that the algebraic equation is correct. If so, we have:

1p(1p) x 1p(3-p*pl) x 1p(3p) = 2p(1p) x 2p(3-p*pl) x 1p(3p)

That is what an equation in the real world looks like, even among mathematicians. Equations in the real world equate interiors (as well as exteriors), and thus they are built not just of exteriors that can be "equal" but of interiors that can be "equal," which is to say, can equal each other in mutual understanding or **mutual resonance**. That is what the equal sign means in the real world. The Kosmos vibrates with those equations of souls touching each other. *That* is what the Kosmos is made of.

Notice in the above equation that—as usual—all of those terms are situated with reference to the first person who is making the assertion (in this case, me). In the right hand of that equation, even your first-person perceptions must be stated in reference to me who is making the claim. Likewise, were you to write a series of claims, I would always be the second-person first person to you. Thus, if I write: 2p(1p) x 1p(3p) [your first person sees my third person; that is, you are perceiving or touching the objective dimensions of my being-in-the-world], you would write that same statement as: 1p(1p) x 2p(3p) [my first person sees your third person]. Now the only way that those two perspectives can be entered in the same equation is if you and I can find a first-person plural space [(1p*pl)] in which we can agree that those are equivalent transforms. If we do so, each of us would still each have our individual understanding of this "we," even though we believe they overlap, so that if I then write an equation of our mutual understanding, one of its (many) forms would be:

1p(1p) x 1p(1-p*pl) x [(1p*pl){ 1p(3p)}] = 2p(1p) x 2p(1-p*pl) x [(1p*pl){ 2p(3p)}]

Which means, my first person has a first-person view of how we (first-person plural) see my third-person algebra; and you have a first-person view of how we see my algebra which is, in your space, a third person artifact produced by me, who is a second person to your first person.

Although I would need to write out both sides of that equation in at least a four-term fashion to show the details of what is involved, the simpler point is that this equation is asserting the existence of a we-space in which the two sides of the equation are equivalent—it is asserting, that is, *similar signification* between the intersections of a first person and second person who enter a first-person plural space.

If the Kosmos is built of perspectives, then the interactions in the Kosmos are built of similar signification or mutual resonance—which is why all holons have a Lower-Left quadrant of shared interiors, and not merely a Lower-Right quadrant of shared exteriors.

The equations of integral mathematics all revolve, ultimately, around how holons actually relate—that is, not only with similar exteriors that can be added, subtracted, multiplied, divided, derivated, and so on, but with interiors that resonant with each other, or do not resonant with each other, or stand in a relation of understanding to each other, or stand in a relation of power to each other, or enfold the other with integration (in compound individuality), or subsume the other without integration, and so on.

As one runs the integral calculus, various operations and functions emerge, including prehension (within perspective), mutual resonance, interpretation, telepathy, integration, differentiation, enfoldment, power over, transcendence, inclusion, and—most interestingly—the major validity claims (i.e., different equations begin to represent different types of validity claims or assertions of adequacy). I'm sure there are dozens, maybe hundreds more; maybe infinite.

But, again, I am making a series of much simpler points in this introduction, so let me finish this brief intro by going back to the equation representing two mathematicians agreeing on the nature of an algebraic formula:

1p(1p) x 1p(3-p*pl) x 1p(3p) = 2p(1p) x 2p(3-p*pl) x 1p(3p)

In that equation of mutual understanding (i.e., in that real-world equation of two sentient beings agreeing on the nature of a third-person abstraction), the "3p" represents the third person, which in this case is an insentient third-person artifact, i.e., the algebraic formula (x = 3y). That equation says, my first person has an objective (third-person plural) view of my third-person artifact (the algebra) which is equal to (or mutually resonates with) your first person's perception, in an objective mode, of my artifact. (Don't confuse "3p," or the *object-dimension* that is being perceived/enacted—in this case, the artifact—with "3-p" or "3-p*pl," hyphenated, which is the *mode* in which the object is being perceived—in this case, a third-person plural mode.) So let's put that third person or artifact into the above equation (i.e., wherever we see "3p," we will substitute [x = 3y]):

1p(1p) x 1p(3-p*pl) x 1p([x = 3y]) = 2p(1p) x 2p(3-p*pl) x 1p([x = 3y])

Now, if we deny that all such assertions (in this case, the assertion that "x = 3y") are always already a perspective—that is, if we deny that there are any first or second persons involved in third-person assertions—then "1p" and "2p" and "3p" all become merely a number 1. That is, there are no first or second persons, and therefore no third persons, either; only insentient things and events and processes and abstract markers; and those abstract markers are not even "third persons" anymore, because there are no first or second persons to talk about them. So if

we substitute the number "1" for 1p, 2p, and 3p in that equation, then that particular equation of mutual understanding between two souls becomes instead:

$$1(1) \times 1(1) \times 1([x = 3y]) = 1(1) \times 1(1) \times 1([x = 3y])$$

which obviously reduces to:

$$[x = 3y] = [x = 3y]$$

In other words, integral mathematics, stripped of sentience, collapses into the monological spaces of ordinary mathematics, where it merely asserts identity of abstract (third-person) markers. Those markers are real enough, but they only represent a narrow slice of the Kosmos, a slice generated from real-world sentient beings through a series of abstractions, collapses, and reductions, so that only a few of the dimensions of being-in-the-world are represented, and are represented in a way that deceptively appears that they are not perspectives of sentient beings but simply a view of "the way things are," or what Nagel so aptly called "the view from nowhere." This allows such collapsed cognitions to imagine a Kosmos built of abstract relations and insentient beings (which is itself a perspective of their sentience).

There have been many attempts to arrive at a type of fundamental mathematics of the Kosmos that attempts to include items such as consciousness, interiority, mind, subtle energy, spirit, and so on. Many of these take the basics of conventional physics—such as the quantum vacuum potential, or fundamental matter waves, or string theory—and essentially equate those basics with consciousness or spirit. David Bohm, Arthur Young, Buckminster Fuller, Walter Russell, Milo Wolff, Ervin Laszlo, Wing Pon, William Tiller, among many others, have added to our understanding of how this might occur. But all of those approaches embed various degrees of the monological prejudice, and thus end up simply (and unfortunately) equating spirit with an

implicate *third-person* holism (e.g., Bohm), or attempt to derive first-person consciousness *from* third-person operators (e.g., Fuller), or see consciousness emerging as a result of complex third-person systems interactions (e.g., Laszlo). Even the approaches that see consciousness or mind as fundamental (e.g., Russell), imbed the prejudice of perception or consciousness (which does not exist, as we have seen)—Whitehead being another example.

In other words, all of them are pre-quadratic attempts to derive the essentials of the Kosmos from a starting point that prejudicially has already collapsed the essentials out of existence and thus must attempt to recover those essentials with epicycles of further abstractions. Again, I am not saying that aspects of their work are not true; I am saying that they have abstracted their conclusions out of the matrix of indigenous perspectives and then presented them as "the way things are," oblivious to the perspectives in which their "views from nowhere" actually arrive.

This is certainly the case with "metaphysics" in general, whether we find it in Plotinus, Shankara, Asanga, Padmasambhava, Gurdjieff, Hegel, Rudolph Steiner, Carl Jung, William James, or the greatest of recent metaphysicians, Aurobindo. To the modernist and postmodernist critiques of metaphysics, we add the integral critique: their metaphysical systems are interpretations of their own spiritual experiences; the authenticity of the spiritual experiences is not in any way questioned, but the *adequacy* of their *interpretations* is: they have unconsciously abstracted, from the matrix of indigenous perspectives, a third-person overview that arrives on the scene secretly privileging the view from nowhere, even (or especially) when it emphasizes the importance of experience, spiritual awareness, feelings, or consciousness: all of those are, in fact, hidden low-order abstractions, and, as such, are the very heart of the metaphysical approach that all post-metaphysical integralism must struggle beyond. If "direct experience" and "consciousness" are already low-order abstractions mistaken for realities (and hence are metaphysical ghosts), the notions of "levels of being," "levels of knowing," "ontological planes," and so on are even worse: they are abstractions of abstractions of abstractions, even though the

experiences that those interpretative frameworks are trying to represent are authentic enough. (In this regard, Aurobindo is the most offensive metaphysician in that he is the most accomplished; one can only stand in awe of his metaphysical system.)

Again, *I am not questioning their realization or enlightenment or spiritual experiences*; I am questioning the *framework* that they used to *interpret* and conceptualize their experiences. Those metaphysical interpretive frameworks are simply not adequate to a postmodern integralism that has grown out of metaphysics but can no longer be contained by it (i.e., integralism transcends-and-includes metaphysics, such that integralism is external to metaphysics, or no longer constrained by its nexus-agency).

Likewise, take an integral calculus of 7 dimension-perspectives; collapse it to 4 dimensions; set the domain on the interiors (first-person perspectives) to a specific stream in those interiors (such as the values stream) and then set that domain (or first-person space) to cover the specific range beige to orange; set the mode to register only 3-p perspectives; and those operators will generate a phenomenological space of scientific materialism. Set the domain range to green, set the mode to recognize only interiors, and you will generate an event horizon or phenomenological space of postmodern pluralism. And so on….

Likewise with the great pre-quadratic metaphysical systems: their essentials can be derived from an AQAL matrix without the inadequacies of metaphysical interpretations, and thus their incredibly important insights can be taken into the modern and postmodern world without embarrassment.

All of these operations are simply reminders, I believe, that the Kosmos is built of perspectives, whose fundamental operations include mutual interior resonance along with mutual crashing into each other externally; and that, therefore, any abstract notational systems can remind themselves of this by acknowledging an integral calculus of indigenous perspectives. When it comes to an integral mathematics itself, its starting point is the relations between the

universal demi-abstractions embedded in pronoun-perspectives of natural languages, deposited there, we presume, by an evolution attuned to these real dimensions in the real world.

One last point. We said we would return to the symbol "123/p." In some ways, this is the most interesting operator in integral mathematics. It means "stop." As one runs the integral equations, it soon becomes obvious that there is no fundamental perspective, no absolute Archimedean point, from which one can know anything. There is simply an ongoing cascade of perspectives on perspectives, all the way up, all the way down. The universe might be composed of holons—which I believe is the case—but "holon" is already a third-person symbol in a first-person prehension—i.e., it is already a perspective. Just as there is no such thing as consciousness, mind, feelings, awareness, things, events, or processes, there are no holons—for all of those are always already perspectives. And the only way we "know" any of those is that we arbitrarily and abruptly dig our heals into the cascading flow of infinite perspectives and we say, for example, "I see the tree!"

Once we arbitrarily slam our foot down and perceive something, or feel something, or notice something, we have temporarily frozen the stream at that instant, and around that frozen singularity an AQAL matrix jumps into existence. Once I register another entity, a first and second person have jumped out of the stream; once we communicate about anything, third persons are everywhere—and all of that happens at the point, and only at the point, that I stutter the stream and temporarily stop the flow.

The "stop" symbol (/p) in integral mathematics means: this is the occasion (the first, second, or third person event) where I arbitrarily stopped the stream and began my process of knowing in the midst of other sentient beings. The stop symbol means: "freeze frame." Freeze the flow at that frame, and let me start the knowing, feeling, perceiving of that event.

Thus, with "I see the tree," we have, in simplified form: **1p(1p) x 1p(3-p) x 3p(3/p)**, which means, I have arbitrarily focused my attention on that tree over there, so I have stopped the cascade at the objective surfaces of that tree [3p(3/p)] and I have begun the knowing process

there, so that now I will assert that my first person [1p(1p)] has an objective view [1p(3-p)] of that object over there [3p(3/p)], and THERE IT STOPS (which also means, and there it starts: the knowing process starts only when I dig my feet in and stop the flow). *Without the 123/p moment (or the stopping moment), then perspectives cascade endlessly.* In the manifest world, it is literally perspectives all the way up, all the way down, and without the arbitrary stopping moment or freeze frame, nothing gets registered. But initiate a stop, and the AQAL matrix jumps into existence around that point.

This "jumping into existence," arbitrarily initiated, does not, however, have an altogether arbitrary form. As a sentient being, when I stop the flow and initiate (enact) a world, it is a world of other sentient beings; and therefore the form of the matrix of perspectives that *can* arise is constrained by all the other sentient beings who are also stopping streams and enacting worlds. All of our enactions have to inter-mesh, since they are co-creating each other. Hence we find the form of the AQAL matrix of primordial perspectives, which can be transcendentally deduced from the structure of our own everyday interactions, such as those embedded in natural languages (whose demi-abstractions can also drive an integral mathematics). The AQAL matrix is one view of the form of mutual enaction when sentient beings co-create each other in freeze frames of their own becoming: the AQAL matrix is the form of Spirit's lila.

Well, so much for an overview, which I hope has at least suggested a few possibilities here. There are a hundred ways to take an integral mathematics, whose farthest reaches are surely beyond my capacities. But every now and then I will, as indicated, post or publish a few more preliminary stabs in this direction. If nothing else, I hope that this kind of notational system will act as another type of IOS or Integral Operating System—namely, a series of merely third-person symbols that nonetheless constantly remind us that there are actually first- and second- and third-person sentient beings in the real world. The Kosmos contains sentient beings, not particles or processes or webs or systems, and therefore the Kosmos is built of perspectives, not feelings or

perceptions or consciousness, all of which are always already perspectives in Indra's endless

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ENDNOTES to Excerpt C

[1] Bausch, *The Emerging Consensus in Social Systems Theory*, p. 15.

[2] Bausch, *The Emerging Consensus in Social Systems Theory*, p. 16.

[3] This is not to say that autopoietic and systems approaches cannot be applied to interiors, as we will see, but only that when they are, they still capture only the third-person aspects of those interiors.

The autopoiesis paradigm of Maturana and Varela is often mentioned as a "postmodern epistemology" because it strongly denies the existence of a pregiven world (i.e., it denies the "myth of the given"—the myth of the Mirror of Nature—the myth that the world is a given territory that we are supposed to map and mirror accurately [see *The Marriage of Sense and Soul* for a discussion of the myth of the given]). According to Maturana and Varela, the representational or mirror-of-nature epistemologies naively assume that there is a single biosphere or natural world—the great Web of Life—and that we are to live in accord with that Web, which itself is the myth of the given. The autopoietic approaches point out that "nature" and "the world" actually consist of various enacted worlds brought forth in part by the autopoietic regimes of the organisms perceiving them. There is no "biosphere" or "nature" or "the natural world" except in the rationalized cognition of some human beings, a cognition not shared by 99.9999% of biological organisms.

The enactive point that Maturana and Varela make is true enough, and to that extent, the notion of autopoiesis is indeed postmodern. I share an agreement with most of its important features; but my point is that the autopoietic version of this interpretive component of world-making is still addressing only the *insides* of the *exteriors*, not the *insides* of the *interiors* (see fig. 3). It is, if you will, a postmodernism of the UR, not the UL. Obviously this is an important

perspective that we would want to include in any integral methodological pluralism, but again, only if shorn of absolutisms.

(Demonstrating this inadequacy—which means, not wrongness but partialness—of the autopoietic paradigm is the burden of several critical endnotes in SES which specifically address the strengths and weaknesses of the typical enactive paradigm, which—as with Whitehead—could be called "the partial enactive paradigm" as opposed a more "complete" or "tetra-enactive paradigm." For a critical appraisal of Francisco Varela's work, see numerous endnotes in *Sex, Ecology, Spirituality*, second edition [CW6], particularly note 1 for chap. 14, beginning with subheading "Francisco Varela's Enactive Paradigm," pp. 734-741; this note also gives references to several other notes in the book discussing these themes.)

On a very positive note, Maturana and Varela speak of biological and even physical phenomenology—that is, they fully acknowledge the existence of the UL (or interior experience or proto-experience) going all the way down to, and including, physical holons. They also acknowledge that these interiors: (a) can be known from within, (b) can be described (or reconstructed), or (c) can be known from without (by observing behavior). I definitely agree. The problem is that when they attempt to reconstruct (which is item "b") the inside experiences (which is item "a"), they actually slip into (c) realities.

For example, they correctly maintain that organisms have an inside to the extent that they have structural memories and co-evolve (or structurally couple) with their environments. Structural memories represent the enacted history of an organism's cognitive choices via structural coupling with the exteriors. But those cognitions are pictured/described in third-person terms, not first-person terms: they are the "insides" of exteriors, not the insides of interiors (see figs 2 and 3). Actual prehensions represent the felt-meanings of interiors as they touch their preceding feelings, which do not represent cognitive choices with nomic intent (i.e., "biological identity and survival"—which is Maturana and Varela's definition of cognition), but rather the

felt presence of the holon in its bit of exuberant élan vital and joie de vie (to put it more poetically, which is the better language for the UL anyway). The habits of intimate touching of prehensive unification tend to be reduced to the mechanics of structural coupling and exterior-cognitive enactment. I agree with what they say about structural coupling, but, as explained in SES endnotes, it does not cover the actual UL very well at all; rather, autopoiesis looks at the organism in third-person terms (which is fine; this is science), and then attempts to explain what goes on inside that (exteriorly-viewed) organism as it enacts and brings forth its world: hence, the insides and outsides of the exterior, neither of which actually includes first-person realities as such.

Varela has attempted to integrate first- and third-person perspectives in his "neurophenomenology." Again, this is an important move toward a more integral stance, but one that is flawed, in my opinion, by a lack of inherent second-person perspective and a lack of waves and streams (i.e., it fails to include quadrants, levels, and lines). See *Integral Psychology* for a critical appraisal of neurophenomenology. Varela's reliance on, e.g., Merleau-Ponty's version of felt phenomenology makes it more difficult for his theory to easily cover intrinsic intersubjectivity as well as waves and streams.

[4] There are not different holons in the four quadrants; the four quadrants are four dimensions of every holon. There are different dimensions of a single holon in the four quadrants, not separate holons. (Of course, those dimensions can be subconceived as holons in their own right, but those holons themselves then have correlates or dimensions in all the other quadrants, so they themselves are not separate holons either.) So when we say the insides of an interior holon, for example, that actually means the insides of the interior dimensions of a holon. But it is easier and simpler to say things like "holons in the UL quadrant," and so on, which is fine, as long as the tetra-nature of any holon is clearly remembered.

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[5] Also keep in mind that when we say, e.g., that ecosystems can be represented in it-language, that does *not* mean that ecosystems are nothing but "its." All ecosystems have interiors—all LR systems have LL correlates—all social exteriors have cultural interiors—but those interiors are captured best in "I" and "we" terms of cultural solidarity, as we will see, and not the it-terms of systems and webs and processes.

[6] See "On Critics, Integral Institute, My Recent Writing, and Other Matters of Little Consequence" [posted on wilber.shambhala.com] for a discussion of the four different types of holons: individual, collective, artifacts, and heaps. Each of those is a "whole" in a very loose sense, and therefore has "parts" in an equally loose sense (and thus each is a "holon" in a loose sense). I generally restrict the use of the term "holon" to individual and collective holons. Only an individual holon, however, has a dominant monad or "I" with a singular agency or intentionality, and thus only an individual holon has consciousness per se (although a collective interior holon can have a type of diffused consciousness, e.g., "group ego"). Thus, by "holons," unless otherwise specified, I mean individual holons (and secondarily, collective or societal holons, although the latter are usually specifically indicated as social, cultural, collective, communal, etc.). Again, context will have to be used to determine intent.

In the text, when I say that all holons are sentient beings, I specifically mean that all individual holons (or compound individuals)—such as quarks, atoms, molecules, cells, organisms—have an interior dimension (UL) of sentience, prehension, proto-experience, or awareness, which always already arises as a first-person perspective of/on the (tetra)enacted worldspace in which it occurs. I generally prefer the simple term "interior" to specific terms like "feeling," "awareness," "experience," etc., because I believe the junior grades of interiority are likely to have qualities not easily or explicitly felt by humans, even though those junior grades are internal and interior to human awareness. I therefore prefer to call this position "pan-interiority" instead of "pan-psychism," although I understand why some see that as a trivial distinction.

[7] Is there any perception that is not a perspective? Yes, I believe so, and it has to do with satori or nondual awareness (or pure Emptiness—consciousness without an object, which is therefore consciousness without a perspective), which I will explore in later excerpts. The conclusion of this integral reformulation of the wisdom traditions is that samsara (or the world of Form) is composed of perspectives, and nirvana (or Emptiness) is pure perception without an object or perspective. The union of Emptiness and Form is thus the union of perception and perspective, where in my pure perception I am one with everything that is arising (although as expressed through my own individual perspective, with which I am no longer exclusively identified). Finding Emptiness is a freedom from all perspectives (a nirvana free of samsara); a union with Form is finding the Fullness of perspectives that alone can express this Freedom (the nonduality of nirvana and samsara). Wisdom is transcending perspectives, compassion is embracing them all.

[8] But even in the human domain, I am not saying that there is no reality outside of human perspectives, only that those realities are prehended within a matrix of perspectives that always already arrive with whatever else it is that arrives. It is not that the human mind has a priori categories that pre-structure perception (although it does), it is that the Kosmos itself has a structure that pre-structures the relation of sentient beings: namely, as Leibniz pointed out (but did not pursue), each sentient being occupies a different locale in spacetime, and therefore each has a different perspective of/on the others. Human beings can deduce that there are realities on the other side of their perspectives, but those deductions themselves are third-person objects in first-person minds, which does not mean they (or their referents) aren't there, only that they are perceptions that arrive within perspectives.

[9] Remember that we are not concerned at this point whether this I is "real" or not; for integralism, that's not an interesting question; everything is real in its own worldspace. You might meditate on this "I" until it disappears in a stream of momentary sensations, but all that means is that you

have used a different paradigm to bring forth or enact a worldspace where the "I" is not present; but in the conventional world where you started, the I is present, and that is what has to be accounted for, not explained away.

Thus, the goal of this type of initial pan-phenomenology (what Peirce called "phaneroscopy") is not to pronounce one of these perspectives real and the others illusory, but simply to note the fact that these phenomenological worlds already present themselves to us. After we take a holistic inventory, so to speak, of these dimensions/perspectives, we can more easily judge which of them, if any, can be enfolded or subrated by others, and thus start to judge whether some of them are more encompassing or "more right" than others; but if we are going to play that type of game, where the stakes for getting it wrong are so high, we have to err on the side of expansive inclusiveness in our initial inventory of phenomenological worldspaces, which is why we are according all 8 of these worlds an honored and respected place at the integral table. [10] As we will see in later sections and excerpts, I do share nonreflexive solidarity with other sentient beings in my local ecosystem, and I do so at all levels at or below mine; but levels of physical complexity (e.g., triune brain) need other similar levels of complexity to be decoded. So every *culture* has a *social* system in the immediate vicinity of the organism, but not merely there (culture does not primarily move or exist in phenomenologically sensorimotor spaces).

[11] I use the word "b/its" in a very general sense to refer to the monological view of information (where information is described as coded patterns that can, e.g., be carried in a digital stream of 1's and 0's). Those data bits or b/its are indeed "its," in both senses: they represent (merely) the objective and interobjective aspects of communication (the signifiers or signals), as well as the flatland or monological theories of communication that do not adequately acknowledge interiors, interpretants, or signifieds (and are thus dealing merely with its or b/its). These monological theories assert that "information" captures the "mind" side of the equation, and "experience"

captures the "body" side, so that in asserting that each occasion has an informational and an experiential component, the mind-body problem is solved.

In my view, those theories are very similar to autopoiesis theories, in that they are not actually giving the interiors (mind) and the exteriors (body), but simply the inside and outside streams of the exteriors. In other words, when communication is viewed as information transfer (which leaves out levels of interiors that are responsible for decoding information but cannot be reduced to information), then "mind" is actually reduced to "brain," and if the mind-body problem is thus reduced to the brain-body problem, of course it's easy to "solve": the brain is part of the organism. (See chap. 14, *Integral Psychology*.) But that's not "the hard problem" nor its solution.

Just as autopoiesis is supposed to be the "inside" view of biology, but is actually the inside of the exterior (not the inside of the interior), so "information" is simply the inside view of the exterior (e.g., first-person mind treated as third-person brain), not the prehensive insides of the interior (or the first-person experience of first-person realities).

For AQAL metatheory, information considered as an objective (i.e., interobjective) stream of communicative occasions (such as digital bits or b/its) is accessing the third-person plural modes of being-in-the-world; whereas "information" in the interiors can only be accessed in first-person modes (described as feelings, prehensions, impulses, etc.). Since few information researchers even consider the interior modes, I will usually use "information" to mean exterior b/its (although, as usual, context will determine). But all individual holons (or sentient beings) engage in the transfer of communicative artifacts or signals to some extent (i.e., information exchange), and this applies to everything from electron orbital shifts to bird calls to computer traffic.

Information or b/its, in that exterior sense, means the stream/system of signifiers, not signifieds (the syntax, not semantic), although the latter are clearly *implied* by information theory

(since it is recognized that, yikes, information does need a decoder, even if the decoder itself is poorly treated in information theory, if at all: the decoder is just another monological data stream). Again, information theory is attempting to get at the insides, but only in third-person terms, and thus ends up giving us the insides of the exteriors (e.g., mind treated as brain).

Integral calculus: **1p(1p) x 1p(3-p*pl) x 3p(3p) x 3p/(1-p)**, which means, my first person has a third-person plural view of the third-person aspects of an event as seen from its insides. In abbreviated form, a 3 x 1 x 3: the exteriors of an occasion looked at from within but still in a third-person mode. "3 x 1 x 3" is quintessential zone #3 (e.g., Maturana and Varela). See Appendix B, Integral Mathematics.

Exterior information transfer can also include subtle energies; see Excerpt F.

[12] Of course, as folks from Wittgenstein to Heidegger have pointed out, from within an interior boundary you can see neither the boundary nor what is on the other side of the boundary. The limits of interior spaces appear as horizons, not physical borders. But some interior spaces can indeed see the outside of other interior spaces, and we are phenomenologically tracing all of those insides and outsides as they appear to successively encompassing interiors. Of course, those ultimate boundaries are horizons that cannot, at that point, be meta-viewed. The only place to go from the top of that 100 foot pole is into Emptiness.

[13] *The Essential Peirce*, vol. 2, p. 362.

[14] *The Essential Peirce*, vol. 2, p. 367-8.

[15] For a discussion of "singular" Spirit/Subjectivity grounding all intersubjectivity, see "Do Critics Misrepresent My Position?, Appendix A" [posted on wilber.shambhala.com].

The reason this is an "enormously complex issue" is that, at bottom, I subscribe to the Madhymaka position that points out, when it comes to any sort of ultimates, one cannot make a noncontradictory assertion about them (as just demonstrated with that statement: if that statement is ultimately true, it is false).

This is not merely a matter of Russell/Tarski/Godel recursiveness, which occurs when finite assertions are self-referential. It is, so to speak, bigger than that. Any sort of assertion about ultimates or absolutes (including denying them) amounts to an assertion about reality as a whole, and any statement referring to reality as a whole would include the statement itself, at which point you generate paradox at best, infinite regress at least, and ad absurdum always.

For Nagarjuna's Madhyamaka (the basis of all Mahayana and Vajrayana Buddhism), the "ultimate," or "absolutely real," or "Spirit" cannot be known using that type of knowledge, philosophical reasoning, or any other sort of assertions arising within phenomenological space, whether those assertions are relativistic, pluralistic, or absolutistic. Rather, the ultimate or nondual can only be accessed in a state/stage of consciousness known as nondual (e.g., satori), which itself cannot then be made the basis of any sort of assertion within the phenomenal world. The most we can say is that the ultimate is shunya (or empty) of all qualities—*including that one*.

In other words, the nondual is a realization that is engaged, enacted, and brought forth by a paradigm or practice of meditation that moves in dimensions not captured by mental paradigms, and when the result of such spiritual paradigms are filtered through the lens of mental paradigms, the result is paradox, regress, absurdity.

Thus, when I say there is "one Subject" grounding all intersubjectivity, that is not a philosophical statement, nor is it an assertion. There is not a "single" Subjectivity or consciousness, not literally, because "single" only makes sense when contrasted with "plural," and the nondual is neither (nor both, nor this, nor that, indefinitely….)

Why, then, do I even use the notion of "ultimate Subject"? Because those who have engaged the causal-nondual paradigms have found that the realizations brought forth by those paradigms decisively contribute to otherwise insoluble issues such as the mind-body problem and intersubjectivity, and therefore I use such shorthand statements as "consciousness is singular of which the plural is unknown" as a type of constant reminder that other paradigms need to be

brought to bear on these issues. Although the "conclusions" of these other paradigms cannot be seen by mental paradigms, they can be seen by integral individuals, who can then directly contemplate their relevance for these issues. We will return to this topic in Excerpt E, subsection Integral Semiotics.

[16] See Sean Hargens, Intersubjective Musings [posted on wilber.shambhala.com].

[17] The view that a society is "like" an organism is called the "organic" model, credited to Herbert Spencer; the idea that society "is" an organism itself is the "organismic" model, found in theorists such as James Miller and most forms of "living systems" theory. In the text we focus on the organismic model, since it is the strongest form of position #2, just as atomistic individualism is the strongest form of #1.

[18] Actually, there are (at least) four different types of parts and wholes—referring to individual holons, social holons, artifacts, and heaps. See note 6. But in almost all instances, I restrict holon to individual and societal occasions; not artifacts and heaps.

[19] I am not saying some sort of "Web" or *interobjective totality* is not there, only that it is a conception that enters the prehensive worldspace of only an extremely small number of organisms—namely, humans at yellow or higher. My criticism of the typical Web-of-Life theories involves several points: (1) virtually all of them subscribe to the myth of the given; (2) they impose that anthropic cognition on other organisms; (3) they collapse Left-Hand occasions into their Right-Hand correlates (subtle reductionism); and then, even within the Right-Hand world (which is now their only world), they commit two further fallacies: (4) they do not see the totality of exteriors as a multiplex of *enacted* exteriors (or what we will call an "enactive Web"), and (5) they confuse individual and social, resulting in an eco-imperium stance.

The problem with generating a truly integral ecology is that all of those points are fairly subtle issues, and cannot be adequately explained in bumper-sticker phrases easily conveyed. The sheer simplicity of the "web of life" notion is its greatest virtue. Unfortunately, in the upper

reaches of its own announced holarchy, this stance becomes increasingly regressive (greater span is confused with greater depth, and thus, e.g., the physiosphere, which is merely bigger, is confused with a greater depth of being, whereas it is merely the shallowest aspect of being that is embraced in One Taste). See Excerpt E, subheading "The Conperception of the Sensorimotor World," where these topics are pursued at length.

[20] Original tribal humans (not tribes today but some 200,000 years ago), did not possess a systems view of the world, which is constructed of formal operational and postformal systemic and meta-systemic cognitions; their center of gravity was generally preoperational, which means egocentric cognition still fused with exterior sensorimotor occasions. This egocentric fusion or indissociation, which was "one with" local environs, is often equated with a systems, holistic cognition. See *Boomeritis* for a playful discussion of this unfortunate confusion.

[21] In the rest of this section, we will especially be focusing on the nature of the *cultural intersections* (shared signifieds) that constitute a "we," and continue to point out why they cannot be reduced to *social intersections* of network "its" (shared signifiers). That Luhmann and most other systems theorists continue to try to reduce the Lower Left to the Lower Right is simply to say… well, they are still operating within the cultural habitus of a systems thinking that denies cultural habitus (i.e., a cultural Kosmic habit that denies cultural Kosmic habits, which is not unusual. No absolutist paradigm—from empiricism to postmodern pluralism to systems thinking—can account for its own truth values).

[22] This can just as well be called a "subagency-in-agency," depending on the level of description. The point is simply that when one compound individual becomes a part or element of another compound individual—i.e., when an individual holon is subsumed in a larger individual holon— the former holon is now a subholon in the new holon, or the new holon can also be described as a superholon that enfolds the former holon. Both of those describe the same process of one holon becoming literally *internal* to another as a part of a compound.

[23] Of course, this collective holon can be looked at from the exterior or from the interior: interobjectivity and intersubjectivity. The main point right now is that this communal network or collective system is, in the LL, an **inter**-subjectivity, NOT an **intra**-subjectivity: the cultural nexus has no singular I within which all its member I's are dominated and subsumed; and, in the LR, it is an **inter**-objectivity, NOT an **intra**-objectivity: its "parts" exist in networks of mutually interdependent communions and are not simply components, cogs, or limbs of one big superorganism.

[24] This is why one of the basic patterns discovered by systems thinking is that higher levels are both *more complex* (in the sense of more highly differentiated) but also *simpler* in functional ways, more unified and more integrated (in their healthy forms). As Laszlo puts it, "The emergence of a higher-level system is a *simplification* of system functioning. However, once a new hierarchical [holarchical] level has emerged, systems on the new level tend to become increasingly more complex"—until that, too, is simplified in functioning with the emergence of a senior level. How does this simplification in the midst of increasing complexity occur? Many agencies are taken up in one agency (agency-in-superagency), which is a more complex holon but now more integrated and thus simpler in its functioning, as when Daisy walks across the room. Daisy is massively more complex than are any of her cells, but the simplicity of her functioning—as when she decides to get up and walk across the room and 100% of her cells and molecules move with her—is astonishing. It would be literally impossible for that to happen if the cells themselves had to arrange to do that. Thus, more complex form, simpler functioning.

[25] I have been mentioning these three different axes (inside/outside, interior/exterior, internal/external) for a long time. See, e.g., the endnote in SES (note 25 for ch. 4). Needless to say, this present treatment supersedes previous statements.

[26] The **inside/outside** axis of indigenous perspectives simply demarcates boundaries wherever they are found in the different phenomenological worlds. The **internal/external** axis indicates

one type of relationship between those worlds—namely, the relationship of learning, development, or evolutionary unfolding and enfolding—where something is not simply inside a holon's boundary but essential to its definition, a definition (identity, agency, pattern) that represents the Kosmic habits or stable patterns of that holon that allow it to persist in spacetime.

The internal/external boundary can be stated in UR terms as those elements inside the organism that follow the autopoietic regime or agency of the organism and thus are also internal to it (e.g., my liver is internal, a swallowed rock is not); in UL terms, those elements in my I-space that follow my will and intentionality (e.g., my owned anger does, my depression does not). In other words, what is *inside* a *compound individual* is simply anything inside the boundary of the compound individual; what is *internal* is anything following the agency of the *dominant monad* of the compound individual. External, conversely, is anything not following the agency of the dominant monad.

The internal/external axis is not merely theoretical. Like inside/outside and interior/exterior, it can be seen and felt. In phenomenological prehension, it often manifests, among other things, as the interior feeling of will or intentionality, such that internality and intentionality go hand-in-hand. The holon's moment of creative freedom extends to those (sub)holons internal to the agency or intentionality of the dominant monad of the compound individual: when Daisy decides to walk across the room, the holons inside the boundary of her compound individuality (a compound individuality defined by the *internality* or agency of the dominant monad in her compound individuality) all walk across the room with her. Outside agents (e.g., parasites) that manage to get inside the boundary of the compound individual move when that boundary moves, but otherwise remain external to the regnant nexus of the dominant monad, and hence external to the compound individuality.

In some cases, however, such as a virus that inserts itself into the nucleic acid of the cell (which is part of the dominant monad of the cell), the outside-external invader actually becomes

internal to the cell—the invading virus inserts itself into the internality code of the cell by literally entering the RNA or DNA of the cell, which then begins obeying the viral regnant nexus, usually by beginning to manufacture the proteins dictated by the viral dominant monad (which are replicants or clones of the virus itself). In that case, the virus has become both inside and internal to the cell, and hence the cell's very identity is altered. Something outside and external has become both inside and internal, and the cell, as such, is no longer itself—it's "will" is no longer its own because its internality is no longer its own.

[27] Holographic metaphors particularly attempt and express a green-meme connectivity. The holographic metaphor says that "each part contains the whole," but that is actually not true in real holograms. The smaller the part of a hologram that you look at, the blurrier the whole becomes: it's really "each part contains a blurred-whole." But that metaphor is unfortunately used, e.g., to represent a type of nondual (or holistic) reality or mysticism. But mystical one-in-many is established via an intersection with infinity, not by blurring the boundaries of the finite. In the direct realization of nondual suchness, the whole of the infinite is 100% in each and every finite thing, not in a blurry way but in a radically total and immediate way. The very essence of many-one is missed by the holographic metaphor; and when it comes to finite things, their boundaries are in many important ways discrete and importantly asymmetrical, which is not captured by the holographic metaphor, either. As an actual representation, model, or map of reality, the holographic image misses many of the central features of both the finite and the infinite. As an actual model, the holographic representation works for a small number of information storage processes, which do indeed incorporate a blurry reproduction of information within its modules; as a metaphor, it is poorly suited for the jobs usually assigned it (and finds its major use, as suggested, in green-meme belief systems uncomfortable with hierarchies).

[28] The phenomenology of the I-space is, needless to say, an enormously rich and complex topic. In this introductory overview, I am taking several shortcuts. The I-space itself, upon

introspection or intro-apprehension in phaneroscopy (see below), is composed of (at least) a proximate-I and a distal-I/me, the former being first-person singular subjective, the latter, first-person singular objective. There is also, upon guided phaneroscopy, an I-I or anterior-I. There is, further, a host of interior objects (interior second persons, if communicated with, and interior third persons, if not). Interior artifacts (images, symbols, signs, visions) are interior third-person objects. There are also interior subjects (or mini-first-person entities) and subpersonalities, as well as repressed subjectivities and repressed/dissociated first-person impulses, desires, drives. Preconscious subjects and objects can be accessed by phaneroscopy; repressed subjects and objects cannot (not, i.e., without a therapeutic lowering of the repression barrier).

All of that I am simplifying, in the main text, as "the" I-space, where I am also simplistically equating the "I" and "the self" (whereas many aspects of the self are unconscious or preconscious). As I said, this is an enormously complex and fertile field of phenomenological investigation, and my comments in the text are meant only as a quick introductory overview.

[29] As indicated in the previous note, the interior phenomenology of the I-space is enormously rich and complex, and I am taking several liberties of simplification in this introduction. At the least, we need to further distinguish between the conscious and unconscious aspects of the psyche, each of which has several functional wholes (each of which has agency or internality codes). For example, an egoic impulse of anger that is repressed is external to the will of the ego—is not internal to the conscious ego—but is still internal to the psyche. Neurosis is basically a confusion of inside/outside occasions, all of which are still internal to the psyche. Psychosis, on the other hand, is a confusion of internal and external, or an actual breakdown the self/not-self boundaries.

That is, neurosis is a confusion of inside/outside, psychosis is a confusion of internal/external. Psychosis is akin to the example of a virus that actually takes over the DNA of a cell and changes its internality codes so much that the cell is no longer itself. With neurosis, the

self-boundary is intact, but invaders get inside the boundary (introjects), or something inside the boundary is repressed (and thus appears outside the ego but is still inside and internal to the psyche) or is projected (and thus appears outside of the ego and outside of the psyche but is still internal to the psyche, or is still actually following the agency of the psyche , even when projected onto others "out there"). With psychosis, however, the agency of the psyche itself is damaged, its internality codes are broken, and the self-boundary itself is corrupted. Borderline is the position between psychosis and neurosis, where the self-boundary is still forming but not yet stabilized.

Again, a rich and fruitful topic for further elaborations—the reconceptualization of psychopathology within an AQAL matrix of indigenous perspectives.

[30] See note 26.

[31] All systems as such are self-organizing, and they are self-organizing because their members are sentient beings with intentionality. You didn't really think that matter simply winds itself up, did you?

[32] Leibniz tried to work this out with his notion of "compossibility," but that was a monological attempt to think it through in third-person terms….

The advantage of a world built of perspectives is that it is not necessary for us to specify the contents of those perspectives in order to gain a bit of understanding. I really don't know exactly what the content of feeling or prehension of a bacterium is, and I find most guesses about that to be less than compelling. But it does seem to me that if a bacterium has some sort of prehension (and I believe it does), and if that bacterium is aware of another bacterium in any fashion whatsoever, then that is one sentient being aware of a second sentient being: which is to say, a first person aware of a second person. Whatever else is going on, it is in a relationship of first- and second-person, and I don't have to know what else is going on in order to know that. Thus, I can build a universe of perspectives without having to understand their contents;

accordingly, if I use perspectives instead of feelings, awareness, consciousness, or perceptions (which don't exist anyway), I can build a third-person map of first and second and third persons (sentient beings) that is more adequate to those occasions (i.e., AQAL). It's still a map, but a less distorting one.

[33] I use "historic-hermeneutic" in a significantly different sense than it is typically used, where the "historic" mode (which demands interpretation) is distinguished as a higher level of evolution than the rest of "nature" (which can be known objectively or empirically): animals have nature, humans have nature plus history. But for AQAL metatheory, there is not history and nature as two different levels, with history higher than nature, but rather two different levels of history-nature. "History" requiring interpretation is simply the interior (LH) dimensions of all holons, and "nature" as empirically observed is simply the exterior (RH) dimensions of all holons—all the way up, all the way down.

Most hermeneuticists see hermeneutics emerging only with linguistic domains, and therefore only with humans, where it is contrasted with lower levels found only in "nature." That's not a very felicitous way to get at the indigenous perspectives operative in those modes, although it does capture at least one important distinction: there are indeed some sort of *levels* involved. For AQAL metatheory, they are different levels of history-nature, with human history-nature emerging at more complex levels of evolution than, say, the history-nature of wolves. Wolves have interiors that can only be interpreted, as well as exteriors than can be seen, and thus they are simply operating at a different wavelength of history-nature. They are not without their culture and its history, because wolves live in a circle of we, as do all sentient beings.

[34] The reason I don't call it "quadratic prehension"—well, sometimes I do, but only for convenience, as often noted—is that technically prehension is operating only in the UL. Only a subject prehends, or only the first-person singular dimension of a holon prehends, and that is the UL. The UR is the exterior form or correlate (not referent) of this prehension; and the LL and LR

are the patterns, systems, and intersections *of those subjects* (e.g., a "we" is not a single prehension of a single I but the *shared* prehensions of member I's linked by similar signification and/or tele-prehensions; this is why neither a we nor an its can perceive). Thus, technically, the phrase "quadratic prehension" doesn't quite work, although it is helpfully suggestive. But the other 3 quadrants have qualities and karma that cannot be reduced to prehension itself. And, of course, for me, these four dimensions are not separate, but are four dimensions of each event, which is why the other quadrants cannot be built up from prehensions, which is what Whiteheadians generally attempt to do.

[35] The study of we's is the study of culture. What is internal to any cultural holon is the present and past of this "we" carried as an intersubjective nexus meshed with each member I and carried in the sum of all I's, but not merely as the sum of all I's.

Again, a "transaction" (such as buying and selling) is a fairly good analogy. The act of buying or selling something—"the sale"—is the communal occasion. Each time one person sells something, at least one other person has bought something. The transaction called "the sale" cannot be reduced to either member nor the sum of two members; nor is it the sum of the actions of two members, since those two actions or intersections (as the actual parts, components, or ingredients of the sale) are defined only in a specific relationship to each other (if I take those two actions and merely add them together, they do not add up to a sale, because they are actions that are meaningful only when coordinated within a larger context that is not the sum of its parts). The "sale," then, is not reducible to either or both members (or compound individuals), nor can it be reduced to the sum of its parts (or intersections)—in other words, a system can be reduced to neither its partners nor its parts. Only the parts *as regulated by* a nexus-agency not reducible to, nor derivable from, its parts can confer a systems status.

At the same time, the compound network cannot exist and does not exist outside of, or apart from, the compound individuals who are its members. The system is not elsewhere; the

system is carried in the sum total of its members, even though it cannot be reduced to the sum total of its members. This "we/its" has a life of its own, a life that cannot be deduced from (nor reduced to) that of its members but which exists nowhere else except in the interactions of the sum total of its members. This is why the communal is not itself a compound individual but a dimensionality of compound individuals—namely, the dimensionality of their being-together, which cannot be reduced to them but exists nowhere else. A system is a convention of sentient beings, not itself a sentient being, and is composed of their intersections, but not merely their intersections: a system has emergent properties (as all holons do) that cannot be found in any permutations and combinations of its parts.

[36] At the same time, "logocentrism" marked the slide from intersubjectivity to interobjectivity that came to define so much of the shallowness that was postmodernism. "Logocentrism," as defined by Derrida, did not mean a reliance on logos or logic or rationality (as so many new-paradigm advocates seem to believe). Rather, for Derrida, "logocentrism" means a reliance on spoken logos instead of written logos—and written logos is the real word of which spoken logos is a corruption—i.e., to overcome logocentrism is to embrace the written word, not the spoken word. As we will see in later excerpts, this was the beginning of the slide from zone #2 to zone #4 in postmodernism, which meant a slide away from studying and interpreting interiors (and signifieds) and into a denial of signifieds and a reliance on a third-person study of third-person signifiers, at which point, as several authorities noted, it became indistinguishable from heterogeneous systems theory, both of which lacked interiors altogether.

[37] "Agency" is therefore not possessed by heaps or artifacts, neither of which have intentionality or self-defining or autopoietic patterns.

[38] The nexus-agency enfolds as internal not the agentic but the inter-agentic events of its past and present members. It is this nexus-agency that transcends-and-includes its predecessors, in both cultural and social systems—e.g., one cultural "we" transcends-and-includes its previous "we's,"

thus continually building up this "life of its own." In a sense, a collective holon has a life of its own, but not a mind of its own.

Again, where to draw the line between individual holon and collective holon is a slippery endeavor; what is assured is both that they are similar (e.g., both are holons) and different (e.g., dominant monad). I am using phrases like "has a life of its own but not a mind of its own" to indicate aspects of that slippery relationship: "mind of its own" implies individual intentionality and an I-space, whereas "life of its own" is looser, more amorphous, as befitting communal holons—which is not to say that the control the communal can exert is weak or ineffective; it is sometimes extremely efficient and inescapable. Individuals born into a social order are landed in a sea of communal contexts that exert enormous control over how they think, what they think, how they feel, what they feel, categories of justness, rightness, and truth (see, e.g., Mary Douglas, not to mention Durkheim). But those collective or communal nexus-agencies govern, as we will continue to see, not holons but only the intersections of holons with other holons (i.e., nexus-agencies do not govern all spaces in all holons in all quadrants).

The relationships are complex. One of the tasks of an AQAL sociology is to trace the many ways that cultural nexuses, which govern the intersections of individuals, become *internalized* in individuals, where "internal" is meant in exactly the way we have been defining it: "something is internal to a holon when it is following the agency of that holon." In the process of socialization, this means: aspects of the nexus-agencies of the society, governing the we-spaces or the intersections of individuals in that society, become an internalized aspect of the agency or I-space of the individual being socialized. In other words, a network-agency is internalized as part of the individual's agency. Or, the internality codes of a compound network become part of the internality codes of a compound individual: the regnant-nexuses of various "we's" become part of the individual's dominant-monad internality codes defining the self/not-self boundary. (E.g., if the public we-space condemns homosexuality, individuals socialized in that space will internalize

that judgment, such that those aspects of the nexus-agency have become an internalized part of the dominant monad's superego. If the individual happens to be homosexual, then the outlawed behavior in the public sphere or we-space becomes a repressed element in the I-space.)

Still, the I-space is not merely the product of the we-space (or no individual would ever be able to escape his or her upbringing); nor is the we-space itself merely the product of a we-space: the we-space is not in all ways a relativistic and arbitrary learning mechanism set entirely in local contexts, for there are context-transcending validity claims built into the calculus of indigenous perspectives (or else we would never even be able to claim otherwise. The very claim that all truth is culturally relative, the claim that there are no context-transcending claims, is a context-transcending claim).

One of the tentative conclusions emerging from an AQAL sociology is that the agency or regnant nexus of a holon (individual or collective) is the *embedded unconscious* of that holon. For discussions of the embedded unconscious, as one of five general types of unconscious processes, see *The Atman Project* (CW2), *Transformations of Consciousness* (CW4), and *Integral Psychology* (CW4). Tracing these elaborate interactions in the process of socialization and internalization is one of the most fruitful areas for an integral or AQAL sociology.

[39] Theoretically, of course, we would situate the power of a nexus-agency somewhere between that of superagency, on the one hand, and "heap agency" or "no agency," on the other (e.g., somewhere between the power that Daisy has over all of her molecules—almost total—and the power that a pile of leaves has over each leaf—which is none). What that actually means is explored in the text.

[40] A holon is inside a system of other holons when that holon's interactions with those holons are internal to that system (which technically means, a holon is a member of—is inside—a system or network when its inter-holonic exchanges follow—or are internal to—the patterns, rules, codes,

or nexus-agency of that system; and a holon is outside that system when its interactions do not follow—or are external to—the nexus-agency of the system).

Notice that *in all cases*, the holon or compound individual *itself* (in its totality or wholeness) is external to any system (one of Luhmann's major points); but it is *inside* a system if its *intersections* are *internal* to the system—or follow the regnant nexus of the system—and it is outside the system when they do not. In the former case, it is outside and external; in the latter, inside and external. This is what Luhmann means when he says that individuals are external to the social system of which they are members.

[41] The study of culture is the study of we's and their history. These kosmic habits are carried in the tetrahensions of the actual occasions that are members of the particular hermeneutic circle. The stronger the habit, the greater the probability of finding that type of intersubjective exchange in that particular nexus in AQAL matrix. The older the cultural habit, the more deeply embedded it is in that particular nexus. This can be healthy (as in various forms of *solidarity* [see below]) as well as unhealthy or disturbed (calcified, rigid, thanatotic, impossible to transcend).

As with any holon (individual or communal) in the transcend-and-include dynamic, the more that "creativity" and "transcendence" approaches zero, the more causality appears. Today is a repetition of yesterday, with little variation. If the transcend part in any nexus is minimal, then those aspects of any culture settle into *tradition* (which, as we saw, is not necessarily bad. Healthy traditions are the foundations of any culture—a stable language, for example; or, exteriorly, a stable ecosystem). A *healthy* tradition (or system) does not often change, but it *can* change, within limits, if selection pressures require it; an *unhealthy* tradition not only does not change, it cannot change, and is thus doomed to extinction with next earthquake in the AQAL landscape. In an unhealthy tradition (or system), the next pocket of spacetime turbulence in the AQAL cascade will damage or collapse its cultural boundaries, disrupt or destroy its social autopoiesis, set individuals loose on their own in a riot of social disarray, and a regression to

lower levels of sociocultural intersections will likely occur—in humans, perhaps from blue to red, for example—and societies will, when they recover, slowly start to tetra-evolve from that lower altitude in AQAL space.

Because of tetra-enaction, any of the kosmic habits developed by an individual in a culture will influence the intersections of other members, and vice versa. The quadrants tetra-evolve, and thus a profound kosmic habit in one will reverberate or be expressed in all four dimensions. If the "purple" holon is a kosmic habit in individuals that is approximately 50,000 years old, then it is a cultural habit as well in all the intersections of "purple" holons. It is not that the individual habit came first and the nexus habit later; they tetra-arise and tetra-evolve. As we will continue to see, tracing tetra-enaction (or "simultracking") is a primary meta-paradigm of Integral Methodological Pluralism.

[42] Every "we" has a history, a history that can be traced in its own first-person plural terms (of historic-hermeneutics), but a history that is also nestled in other dimensions of being-in-the-world—a quadratic history, if you will, or tetra-fields of kosmic karmas. Each of those quadratic occasions (I, we, it, its) leaves traces in the Kosmos; each of them contributes to (informs and constrains) the present tetra-occasion, which must transcend-and-include its tetra-past or cease to exist. The V-formation as a social unit (LR) must have an objective survival advantage (which it does, as human males discovered when they started flying bombing missions during WWII: all of bombers flew in V-formations because it makes it harder for predators—enemy fighter planes, in this case—to get at them). But the V-formation must also mesh with individual prehensions (UL), genetic dispositions (UR), and cultural history (LL), or it simply falls apart.

[43] On the technicalities of validity claims: We start with an actual occasion embedded in the complex fabric of what is; looked at in first-person singular, we see a pressure exerted on that dimension to align itself adequately with its own interiors, a selection pressure of *truthfulness*, violating which, the interior holon faces extinction (e.g., repression, alienation, projection).

Looked at in third-person singular, we see a pressure exerted on the holon for objective

survival—the necessity to match the organism's cognitive maps with the exterior world (a

validity claim of *truth*), failing which, the organism faces physical extinction. Looked at in first-

person plural terms, we see meaning and appropriateness, or the necessity to mesh one's interiors

with the interiors of other members in one's collective, failing which, my interiors are outlawed

from mutual resonance with others (the selection pressure of *rightness*). Looked at in third-

person plural terms, we see *functional fit*, the selection pressure to mesh one's exteriors with

other exteriors or face extinction.

Those are not a tetra-identity thesis—the most we can say is "tetra-interaction" and

"tetra-enaction," because these perspectives are not exhaustive or definitive. Because of critical

integralism, perspectives bring forth worlds, not just reflect them. Therefore, each perspective on

the *same* thing brings forth *different* things. Hence, four native perspectives on the same occasion

generates four semi-different occasions: endlessly. Welcome to the hall of mirrors known as the

reflexive universe.

[44] Overview: The Inside/Outside and the Internal/External of a We

When it comes to a collective or communal nexus (a system of holons), what is internal

to that nexus are any holons' intersections following its patterns. The patterns of this regnant

nexus are the kosmic habits of all the past we's whose intersections are enfolded in the present

we. That nexus-agency represents the probability wave of finding a particular type of holonic

interaction in a particular phenomenological space in the AQAL matrix of indigenous

perspectives. The older the habit, the greater the probability. What is *external* to a sociocultural

nexus is anything that does not follow the agency of that particular nexus.

We noted that members of a system or network are *inside* yet *external* to the system (their

intersections are internal to the nexus, their individuality is not). This is true for both cultural and

social systems. Generally, whenever a compound individual is forced to be internal to a nexus, the result is fascism of one sort or another.

A sentient being (a sentient holon) is inside many social and ecological systems, but is internal only to its own higher self. (Sentient beings are inside and external to systems, but inside and internal to Spirit—and Spirit, as the Self of all selves, is external to all manifestation but all manifestation is internal to Spirit—i.e., Spirit *transcends all* and *includes all*—at which point "inside" and "outside lose all meaning in the nondual suchness that only alone is. We will explore these important issues in later excerpts.)

You and I are inside the "we" but external to it (because you and I are not controlled by the we, only our intersubjective occasions are). A "foreigner," on the other hand, is both *external* and *outside* the "we"—just like the undigested meat in a previous example—no slur on foreigners, of course (and we are all foreigners to other's "we"—a fact that can, fortunately, be remedied by increasing the circle of mutual understanding, or those *inside* the "we"—and the final result might very well be, for a compound individual, an "I-I" that transcends all I's, a "We" that includes all sentient beings as partners, and an "It" that is all of radiant manifestation).

In short, compound individuals that are members of a cultural nexus are *inside* the nexus but *external* to it; their intersections or inter-subjective occasions are *inside* and *internal* to the nexus; and the intersections with all *third-persons* not yet sharing a circle of understanding (he/she/they/them) are *outside* and *external* to that we. Such a "foreigner" or "other" becomes an "us" or a "we"—or a *member* of our hermeneutic circle—when our intersections with the foreigner reciprocally follow the patterns of the nexus-agency of that particular circle or "we" (which itself is continually growing, evolving, and transcending-and-including itself as it lays down kosmic karma). As usual, we are inside a circle of membership when our exchanges are internal to that circle's nexus-agency.

Notice that here we are still primarily discussing the interiors of you and I, as well as the interiors of a "foreigner" or "other" (including the new neighbor who speaks no English). We are not primarily discussing exteriors, or what can be "seen" of the "other" in the sensorimotor world. We are talking about feelings, awareness, identity, values, and mutual understanding in the phenomenologically interior worlds of I, we, and other: when it comes to a "we," you and I are inside and external to the we, which means our compound individuals are inside the hermeneutic circle but only our communication (or intersections in the broadest sense, including tele-prehensions) are internal to this circle or nexus. A "foreigner's" interiors, on the other hand, are both outside and external to the cultural nexus.

Overall communication, of course, refers to an exchange (and/or tele-prehension) of signs, and all signs have an (exterior) signifier as well as an (interior) signified. We are here primarily discussing the signifieds, whose circle of exchange follows the nexus-agency of the particular hermeneutic-cultural circle of we (while, exteriorly, the circle of exchanged signifiers follows any social-system-nexus of which it is a link, including ecological and social systems, as we will see). The next-door foreigner's *exterior* and our (your and my) *exteriors* belong to many of the same social systems (the local ecosystem, for example), which means that our circle of sensorimotor (signifier) links are regulated by the nexus-agency of those systems. On the exterior (or Right-Hand) dimensions, the *exteriors* of all three of us are *inside* the local ecosystem but *external* to it (our exterior *exchanges* or intersections, however, are *internal* to the ecosystem).

Thus, compound individuals or organisms are *inside* an ecosystem when their exterior intersections are *internal* to the ecosystem—that is, when their interobjective exchanges are governed by the nexus-agency of the ecological network—and they are *outside* an ecosystem when their interobjective exchanges are not governed by that particular system. At no point are organisms internal to an ecosystem; only their communications or interobjective interactions are. Thus, an organism is inside but external to an ecosystem when the organism's interobjectivity is

internal to the regnant nexus of the ecosystem, and the organism is outside and external to the ecosystem when it is not. The only thing that is inside and internal to the ecosystem is the previous moment of the ecosystem—which itself is composed not of individuals but of communication between them: what is inside and internal to this moment's system is not organisms but the system of the previous moment (i.e., the dynamic system or "its" of this present moment becomes internal to the "its" of the next moment of tetrahension; present ecosystems transcend-and-include yesterday's ecosystems, not individuals).

This view, as we will see, allows us to include both autopoietic and systems perspectives in ecology—and then further couple those approaches with the interior or cultural side of ecological systems, the result of which is what seems to be a genuinely integral ecology. But in this excerpt we are primarily discussing the interior side of this nexus: not a system of third-person plural "its" but a culture of first-person plural "we."

[45] We are members of a culture when the ways that we touch each other are internal aspects of the phenomenological space that we each mean when we say "we." Of course, aspects of that cultural nexus are internalized by—and are indeed internal to—the compound individual, especially during development; e.g., G. H. Mead's particularized and generalized other. See note 38.

[46] Interobjective examples of communication include exchanges of molecular scents between bees and flowers, exchange of cytokines between cells, exchange of gluons between quarks, etc. Generally speaking, it is only with developmental waves of orange or higher that communication becomes intensely self-reflexive, but communication in general is simply the way that various indigenous perspectives touch each other, and hence communication goes all the way down.

[47] We saw the same thing, in singular form, in befriending "aliens" in the psyche—outsider "its" or third persons moved inside the first-person circle. In this case, it is first-person plural, not singular.

Notice also that, wherever natural languages contain words such as "we," they are *asserting the existence* of exactly such a phenomenological space (a <u>first-person plural</u> space), an assertion fully accepted by a calculus of indigenous perspectives.

[48] The postmodern pluralist, who situates truth in local cultural contexts, self-contradictorily denies cross-cultural realities while allowing cross-individual realities, whereas they both face the identical problem: how two individuals *anywhere* can reach mutual understanding is the only mystery here. How two people from different cultures can understand each other is trivially different from how you and I can understand each other: the extraordinary leap is between any two minds, not any two cultures. If there are enough cross-individual realities between holons to constitute a cultural identity (as claimed by the postmodernist), then there are enough realities between cultures to constitute a global context (as denied by the same postmodernists). The fact of the matter is, nobody understands how "you" and "I" become a "we," wherever that happens— and to privilege cross-individual cultural "we's," as the postmodernists do, while denying all others, is merely green-meme absolutism.

In AQAL metatheory, the mystery of similar signification is handled by acknowledging another, prior Mystery—Spirit—which, in a metaphoric, not assertoric, fashion (see note 15), is the nondual Self of all inter-selves, the absolute Subjectivity in all intersubjectivity, which allows any understanding to occur at all. Any two sentient beings can know each other—not because you and I are *part* of a super-I, but because there is only one super-I (or I-I) that is identical in and as all individuals I's, the single nonlocal absolute subjectivity that inhabits all subjects, and thus brings them together, not by melting them down, but by showing their simultaneous nonduality.

SES, endnote 1 for chap. 8:

Notice that Emerson handles Habermas's "identical signification" in a very direct way: it is not that we merely assume identical signification in order to get the

conversation going; it is that on the deepest level we share a common Self or Nature, namely, God, and that is why the conversation can get going! Habermas's omega-point of mutual understanding, while still true, is outcontextualized by Emerson's omega-point of mutual identity (and in this Emerson is in a long line of descendents from Plotinus through Schelling to Emerson, as we will see). For Habermas, the "who" of Dasein is found in the *circling* of the intersubjective circle; for Emerson, the "Who" is simply God.

Thus Emerson refers to the Over-soul as "that common heart of which all sincere conversation is the worship." Holderlin: "...we calmly smiled, sensed our own God amidst intimate conversation, in one song of our souls."

Notice that one song of our souls is not the same as being cells of the same body—"one song" and "one body" are very different. The former is the harmonious intersection of souls in a nexus-song; the latter is parts of an organism—partners versus parts. Gaia is a song, not an organism.

[49] Technically, there is a difference between "shared intersubjectivity" and "shared subjectivity." The only way there is a direct sharing of subjectivity is through tele-prehension (which does exist, in my opinion—in at least the three forms that were outlined—and those forms definitely contribute to a hermeneutic circle; in fact, they ground it). But a hermeneutic circle also consists of the various inter-subjective exchanges, such as signs and symbols, and those represent shared intersubjectivity, not directly shared subjectivity.

The amazing and mysterious thing about any "we" is that shared signifiers/syntax can evoke/resonate similar-enough shared signifieds/semantic such that one I can come to recognize another I, in each other. The "mechanism" of this intersubjectivity, as noted, is an I-I common in and to all I's. This I-I, however, is of such a different type than any finite I, that it cannot be used as the basis of a philosophy or theoretical psychology, because it is radically empty (or shunya) of

all such possible qualifications or conceptualizations. This I-I reveals itself as a nondual

realization, not a theoretical foundation. See notes 15, 48, 50, 51, 54, 55.

[50] "Solidarity" generally means "cultural tradition," and tradition obviously means some sort of

past history, which is why I define it, in that sense, as kosmic habit in the LL. But for AQAL

metatheory, solidarity in the present moment is also established by the many forms of tele-

prehension, such as immediate harmonic resonance, and those are not technically in the past or in

tradition, but in the immediacy of the now-moment. Thus, solidarity does indeed involve

tradition in many ways; but it is also grounded in the present vividness of various forms of tele-

prehension.

Of course, where one most sees the past or traditional components of hermeneutic-

solidarity is when one is attempting to interpret the communicative signs and symbols of holons

no longer present—e.g., reading a book by an author who is dead or discovering a lost

civilization. Here one is forced to rely on merely *reconstructive* approaches—or using third-

person artifacts to reconstruct a facsimile of first-person realities. Reconstructive approaches

(and the reconstructive aspects of other approaches) fall generally within zone #2—the outsides

of the interiors—and as such are discussed in the next excerpt (Excerpt D), but they need to be

acknowledged at this point.

Hermeneutics with living sentient beings is an attempt to know and understand the

interiors of another holon or sentient being, an attempt that draws on some version of both mode

#1 (such as harmonic resonance) and mode #2 (or various types of communicative exchange,

linguistic and otherwise). Whereas harmonic resonance might give me some sort of empathic

access to the interiors of others, communicative exchange is an attempted *reconstruction of their

interiors* from within the horizons of the interiors themselves (although in a mediated mode; i.e.,

a *reconstituted* result of an exchange of tokens or signifiers of some sort)—with the assumption

that I share enough of these types of interiors that at some point I will have a fairly authentic

resonance with those interiors (approaching even a harmonic empathy). In short, through an exchange of third-person tokens (or signifiers), I attempt to understand second-person realities ("you") not as an *object* or "it," but as a *subject* or a first-person "I"—a bearer of consciousness, meaning, and intentionality—to the point that we can rightly speak, with the hermeneuticists, of a *shared horizon* (which means: shared-insides-interiors), where your "I" and my "I" overlap in significant ways. This might even evoke a harmonic first-person-to-first-person empathy as part of authentic, mutual understanding. In either case, "I" and "you" share a "we."

I include hermeneutics (with living beings) and collaborative inquiry in zone #1 (even though they both draw heavily on zone #2 as well, or communicative exchange), because they are grounded ultimately in teleprehensions of harmonic resonance and transcendental Self. They may start reconstructively or structurally, but usually end with felt meaning as direct resonance. (Otherwise there is no stopping the chain of signification and we would never be able to say, I know what you mean—hermeneutics would only be structuralism.) See notes 15, 48, 49, 51, 54, 55.

[51] Provided that, within the blue space we are enacting, we *also* have some sort of actual shared experiences (such as a root canal). Shared experiences are therefore important in mutual understanding, but they presuppose both vertical and horizontal solidarity, both of which come to rest in teleprehension.

In other words, an overall AQAL view brings together orange-modernist shared life-experiences, green-postmodernist cultural contexts, second-tier developmentalism, and third-tier transcendental Self (teleprehension)—all of which shed light on the important notion of solidarity.

[52] Likewise, the present moment comprehends the previous moment, but not vice versa—which, as we have often seen, is Whitehead's micro-holarchy built into the structure of all experience, although we expand prehension to tetrahension. The word "comprehend" works beautifully in

this regard: the senior occasion *com-prehends* the junior, but not vice versa. Each moment's

tetrahension comprehends the previous moment's tetrahension: kosmic karma in all four

quadrants.

[53] See *A Sociable God* (CW3) for an initial discussion of legitimacy and authenticity in solidarity.

Cultural legitimation (or worldview legitimation) is the inside-interior-plural (LL) correlate of

social systems integration (or outside-exterior-plural; LR). Legitimation, as I often repeat, is as

important a topic as one will ever find. What stops legitimation from being merely a

conventional agreement, however, is that it is set in webs of validity claims inherent in

indigenous perspectives (see note 43). For AQAL metatheory, this allows us to take advantage of

the important work of the postmodernists and hermeneuticists but without succumbing to their

quadrant absolutisms.

This also allows AQAL metatheory to resonate with central features of the world's

greatest living philosopher, Jurgen Habermas. The foundation of Habermas's work is the notion

of three major validity claims (truth, truthfulness, rightness), which underlie everything from his

formal pragmatics to his sociology and politics. Those three claims are, of course, acceptability

conditions of the Big Three of I, we, and it (although I do add one validity claim not covered by

Habermas—functional fit—to give four validity claims—the four quadrants—although Habermas

would see functional fit as a variation on truth; but I differentiate truth into singular and plural

representations, because phenomenologically they are quite different: how I relate to an object,

and how I relate to exchanges with objects, is different).

One critic of AQAL claimed that Habermas's validity claims were "tacked on" to AQAL

in an ad hoc fashion, whereas it is pretty obvious that the validity claims of I, we, and it are

intrinsic in the AQAL framework, all the way down (and were developed without any reference

to Habermas). In fact, one of the advantages of AQAL in relation to Habermas's work is that it

provides a framework prior to his framework (with both frameworks being post-metaphysical).

Using AQAL or IOS we can see, for example, how Habermas's validity claims extend down and into nature (the quadrants go all the way down), an understanding lacking in Habermas, which has prevented him from being able to use his framework to generate an environmental ethics in any way other than as communicative exchanges among humans. Using AQAL, we can see the validity claims (or, if you prefer, their precursors) extending all the way down into "lower forms" of nature, and thus the communicative accord reached between humans is but the tip of an *inter-holonic network* found in atoms, ants, and apes.

[54] Not to mention also sharing the ultimate grounding of intersubjectivity or solidarity, namely, the nondual empty Spirit that a causal/nondual paradigm discloses as inhabiting the agency of all holons, top to bottom (see note 55). For all those reasons, atoms have not just an exterior similarity of form but an interior similarity of feeling-prehension (or an atomic solidarity), and that is what is so crucially important for them being able to register each other's existence at all, because in AQAL metatheory, the interior agency of each holon creates an opening or clearing in which each holon can arise to and for each other; each holon's agency is a paradigm or enactive action that brings forth, co-creates, or tetra-enacts a phenomenological worldspace, worldspaces that can overlap and allow communication because, and only because, the agency of each holon intersects the Agency of all, and does so in each particular case at a particular level of Spirit's own depth: harmonic resonance is depth resonating with similar depth, echoes of Spirit's self-prehension in the world of its own forms. See SES: "The agency of each holon establishes an opening or clearing in which similar-depthed holons can manifest to each other, for each other: agency-in-communion (all the way down)" (CW6, p. 570).

[55] *Solidarity and Post-Kantian Internality.* If the forgoing discussion is true enough, we arrive at a post-Kantian approach to the problem of "knowing an other" (or how a "subject in here" can know an "object out there"). For example, notice (in fig. 1) the sequence of holons in the Upper-Right quadrant: atoms, molecules, cells, organisms, organisms with neural cords (e.g., shrimp),

organisms with brain stems (e.g., lizards), organisms with limbic systems (e.g., horses), organisms with neocortex (e.g., apes).

Conventional epistemologies face the following problem: how can I, as a subject, know anything about, say, a rock, a tree, a rose, or any other object out there? The knowing subject is generally of a different nature than the known object, and thus the jump from one to the other in the act of knowing is difficult or even impossible to explain. And at some point, don't we run into the forever-unknowable thing-in-itself, which is ontologically hidden from me in principle?

But with a holonic view, because each holon transcends and includes its predecessors (both interiorly and exteriorly), then in many cases, the knowing subject contains as part of its interior makeup some of the same types of holons that it is seeking to know exteriorly. The scientist, for example, who is peering down his microscope at an amoeba (a single-celled holon), which exists "out there," also contains various types of single-celled holons in his own insides. The scientist, like all holons, is a compound individual, compounded of all of its evolutionary predecessors—i.e., compounded of all the enduring holons or Kosmic habits that evolutionarily gathered together as subholons to produce ever-greater individual unities in increasingly complex holons—resulting, in this case, in the scientist, who now contains *in his own insides* subatomic particles, atoms, molecules, cells, neural cords, brain stem, limbic system, neocortex….

Thus, when scientists attempt to know various entities in the exterior world, they generically are not faced with an ontological divide between knowing subject and known object, because their own internal makeup contains similar types of holons. Most importantly, from a quadratic view, this means that humans not only contain, for example, single cells in their own makeup—cells whose *exteriors* can be seen in a microscope—but humans also contain in their own makeup the *interiors* of cells, or cellular prehensions, which are an *intrinsic* part of the felt consciousness of a human holon. Therefore, even if largely preconscious, the human scientist shares a *cellular culture* or *cellular solidarity* with cells in the exterior world, and this **cellular**

solidarity is part of what allows any knowing of cells to occur in the first place. The gap between subject and object (including object as thing-in-itself) is fundamentally bridged theoretically: they share, at that level of the AQAL matrix, a cellular intersubjectivity or cultural solidarity that allows knowing and understanding to occur. (And likewise at other levels: atomic solidarity, neural cord solidarity, etc.)

The "hard problem" as generally stated—i.e., how to explain the leap from exterior or material objects to internal qualia or feelings—is generated when theorists only pay attention to the exteriors of objects (and not also their interiors), and thus they attempt to "heal" a "split" between subject and object by coming up with an explanation of how exterior matter jumps to interior qualia, whereas there is no jump, not like that. The interior of the scientist whose exterior is perceiving an exterior cell is simultaneously resonating with the cell's interior; this part of the "hard problem" is not solved by explaining the jump from the exterior material cell to the interior qualia of the scientist, but by realizing that the "jump" is already healed in the reality of the scientist, whose *own* interiors and exteriors are simultaneously arising together.

That is, to know myself in a first-person mode and to know myself in a third-person mode—which clearly I can do, since I am aware of me—is the same hard problem as to take up a first-person knowing of a third-person cell. The hard problem, in this sense, is not really the relation between interior mind and exterior matter, but the relation of first-person to third-person wherever they appear. I am simply suggesting that the mediator in both of those is first-person plural: the cell is actually a sentient being, a thou, and therefore any exterior contact with that sentient being sets in motion a simultaneous interior resonance at the same level—namely, a cellular solidarity possessed by both the cell and the scientist—and that inter-interiority is a crucial ingredient of any sort of knowing at all.

(Can prehension occur in the other direction, cells to scientist? Yes, cells know the scientist, but only as cells. There is no neocortex/formop solidarity, for example. Also: note that if I don't contain rocks or mountains, I contain the holons that they contain.)

This, incidentally, is how a postmodern notion of intersubjectivity can coexist with the existence of a mediated scientific objectivity (or interobjectivity). For most forms of postmodernism, the existence of intersubjectivity rules out any form of objectivity, whereas for an integral, second-tier, or meta-paradigmatic approach, both intersubjectivity and objectivity arise inseparability as simultaneous dimensions of the quadratic nature of the moment-to-moment AQAL lattice. To say the scientist and the cell share cultural solidarity that can only be felt from within (and is interpretative in many of its displays), is not to say that they do not also share exteriority, which is "objective" in any meaningful sense of that word. (This "both/and" yellow cognition is "all Greek" to green cognition, which, we might suppose, is why it rarely appears in postmodern pluralism.) In short, as I have suggested elsewhere, on the *relative* or manifest plane, the "mind-body" problem is handled by tetrahension (it cannot be handled by Whiteheadian prehension alone, for reasons we have discussed throughout this presentation).

As for the "ultimate" mind-body problem, it can only be handled by satori. (See *Integral Psychology*, ch. 14.) That is, to put it *metaphorically*: knowability of the Kosmos can occur because there is ultimately but one Knower in all holons; i.e., knowability can occur not only because of tetrahension (or tetra-resonance), which includes cultural solidarity as one of its four pillars, but because the same dimensionless, unqualifiable, unspeakable Spirit is the empty center of the agency or subjectivity of all holons, the nondual Subject that is the ultimate, nonlocal, instantaneous ground of all intersubjectivity. Kosmic solidarity simply means that we—that you and I—are ultimately of one culture with all sentient beings, top to bottom, and hence we can, in our varying degrees, resonate with other sentient beings authentically. Their authenticity (or truthfulness) can resonate with my authenticity (or truthfulness), so that not only is there

objective truth, or one subject faithfully knowing an object, but a shared truthfulness or presentation of self-being, such that my subject does not simply know an other as an *object*, as an it, as a third-person thing, but my subject resonates with that *subject*, with that sentient being, with that *thou*, and hence we share a slice of cultural solidarity at whatever depth our songs are harmonizing.

In the strong sense, I can know an other not just because our exteriors smash into each other (one third person colliding with another third person in the view from nowhere), but because "the one song of our souls" at that harmonic depth allows us even to be aware of each other. This is not a third-person collision on a flatland highway, but a first-person sentient being vibrating with the secret joy of meeting another first-person sentient being on the highway of our togetherness. We may forgive human rational males if they quickly put all of this into abstract third-person terms and then cannot figure out the hard problem, which, indeed, put in those terms, is not only hard but slightly psychotic: the hard problem as generally stated is simply the attempt to erase first persons from the Kosmos as quickly as possible and replace them with third-person exterior markers, presumably to avoid all that messiness that comes with first persons and second persons and relationship and commitment (:-), agentic males in flight from communion, staring down that microscope, wondering how we can know anything at all….

Cultural solidarity means, among other things, that one first-person sentient being presents itself to another first-person sentient being, and in unison they resonate with their togetherness, which is not one truth meeting another truth, but one truthfulness touching another truthfulness. Cultural solidarity, Kosmic solidarity, means that the universe ultimately does not lie to me. Sentient beings are essentially truthful or you can't get a Kosmos to manifest in any sort of functional fashion at all. The Kosmos as a whole is many things, but a huge dysfunctional family it is not.

In short, Kosmic solidarity is the ultimate or nondual solidarity, or the radical intersubjectivity of all holons established by their intersection with a single, spaceless, timeless Subject or Self, which is not "one" as opposed to "many" but one without a second, or radically nondual. Thus, on the *relative* plane, cells can know each other due in part to their cellular cultural solidarity; on the *ultimate* plane, they can know each other because there is but one Knower, a Kosmic solidarity that timelessly, instantly, eternally binds the interiors of the entire Kosmos together in the loving simultaneity of only this, only here, only now.

For this presentation, I am focusing more on the relative plane of cultural solidarity, but the nondual plane of Kosmic solidarity ought not thereby be forgotten, because you simply cannot get intersubjectivity going in the first place without inter-Subjectivity. At the same time, remember that any such "ultimate" statements are metaphorical at best (see notes 15, 48, 49, 50, 51). We will return to this theme in Excerpt E, subsection "Integral Semiotics."

[56] In Whitehead's approach ("partial dialogical"), internal means an object is internal to a subject, and a prehensive unification is an internalization of networks of prehended objects. All intersubjectivity is thus built of objects that were once subjects. A more complete or integral formulation, however, includes one "we" being internal to another "we" in the ongoing tetrahension of this and every moment, and "we's" are not built of subjects prehending collective objects, but of subjects arising enmeshed with intersubjectivity *as they arise* (or in the simultaneity of their arising). The constraint of intersubjective structures is not placed on subjects because they prehend collections of objects that were once subjects; rather, the constraint is placed upon subjects as they arise as subjects: the prehending subject is constrained in the prehending, not merely by the prehended. Moreover, aspects of intersubjectivity are not objects that were once subjects, but subjects that never become objects, but remain as the meshwork with which prehending subjects arise. This is just another way of saying that Whiteheadian prehension, important as it is, gracefully captures only UL feeling-awareness (as it prehends itself

and UR objects). You can "force" it to work for several aspects of intersubjectivity, but it requires epicycles; and even then, it decisively does not cover the *simultaneity* of tele-prehension (in either harmonic empathy or transcendental Self), the existence of which Whitehead explicitly denied (as David Ray Griffin has acknowledged; see "Do Critics Misrepresent My Position?, Appendix A" [posted on wilber.shambhala.com]). For all these reasons, Whitehead's prehension and internality will not cover solidarity; it's a monological dialogical, not a dialogical dialogical.