

INTRODUCTION TO EXCERPTS from Volume 2 of the Kosmos Trilogy

In the most recent Shambhala interview, posted on this site (“On the Release of *Boomeritis*, and the Completion of Volume 3 of the Kosmos Trilogy”), I discuss the fact that, while writing supporting material for *Boomeritis*, I inadvertently ended up writing most of volume 3 of the Kosmos Trilogy. Volume 1 of the trilogy is *Sex, Ecology, Spirituality*. I had written approximately 1200 pages of volume 2 (tentatively titled *God, Sex, and Gender*), but I was continuously reworking the material and didn’t plan to bring that volume out for several years. But now that volume 3 is essentially written, it looks like we will call it volume 2, and the original volume 2 will be reworked as volume 3. Oh dear.

What follows are excerpts from the new volume 2 (there will be four excerpts—A, B, C, and D—posted over the course of the coming month or so). The working title of volume 2 is *Kosmic Karma and Creativity*, but I doubt that will stick. Anyway, these excerpts are from the first rough draft, only cursorily edited. As such, they will be modified, and in some cases changed considerably—particularly when it comes to items such as terminology, order of presentation, classification schemes, etc. It is simply that, because of other work I am involved with at Integral Institute (see integralinstitute.org) and EcoISP.com, it might be several years before this volume is released, and I wanted to share some of its general contours at this point.

Some critics, who have read most of the original draft material, are calling this “wilber-5.” I myself would not, certainly not at this time; but it is an indication of a certain type of interest. In any event, the critics seem to agree that it represents a major advance in theory since SES. I’m a little reactive to such comments, since it implies that all of the other post-SES books contain nothing really new, whereas all of the concepts most central to the application of this work (such as “levels and lines,” “states and stages,” “1-2-3 of consciousness studies,” “the Wilber-Combs lattice,” etc.) were presented in those post-SES books (e.g., *A Theory of Everything*, *The Eye of Spirit*, *Integral Psychology*).

Still, I have to admit I understand what they mean when they say those books contain “nothing new”—all of them still fit within the AQAL framework (“all quadrants, all levels, all lines, all states, all types”—or AQAL for short, pronounced “Ah qual”) first introduced in SES. About half of *Kosmic Karma and Creativity* can also fit comfortably within that framework (much of this half has already been posted as the sidebars to *Boomeritis*). However, the other half, the half that is explicitly called “Integral Post-Metaphysics” (which is the so-called wilber-5 material), although it also fits perfectly within the AQAL matrix, cannot be explained by any of the concepts generally used to date. It is a curiosity of writing that I have been thinking in a post-metaphysical (“wilber-5”) fashion for a decade or two (as several quotes below will reveal), but I would translate those thoughts into the terminology of the works already in print—writing has a life of its own. In any event, those aspects of the following presentation that fall under the rubric of “Integral Post-Metaphysics” all fit within the AQAL matrix, but they reinterpret that matrix in profound ways. Moreover, whereas aspects of my previous writing had at least some historical precedents, much of Integral Post-Metaphysics is without precedents of any sort. Whether or not it has any merit remains to be seen, but it is abruptly original.

Integral Post-Metaphysics—and its corollary, **integral methodological pluralism**—is important, I believe, for many reasons. First and foremost, no system (spiritual or otherwise) that does not come to terms with modern Kantian and postmodern Heideggerian thought can hope to survive with any intellectual respectability (agree with them or disagree with them, they have to be addressed)—and that means all spirituality must be post-metaphysical in some sense. Second, as Einsteinian physics applied to objects moving slower than the speed of light collapses back into Newtonian physics, so an Integral Post-Metaphysics can generate all the essentials of premodern spiritual and metaphysical systems *but without their now-discredited ontological baggage*. This, to my mind, is the central contribution of an Integral Post-Metaphysics—it does not itself contain metaphysics, but it can generate metaphysics as one possible AQAL matrix configuration under the limit conditions of premodern cultures. That is, the AQAL matrix, when

run using premodern parameters, collapses into the old metaphysics (as Einsteinian collapses into Newtonian, even though it itself is non-Newtonian). On the other hand, alter the holonic conditions of the matrix by adjusting it to the parameters of the postmodern world, and the metaphysics drops out entirely, even though there still remains an entire spectrum of consciousness, waves of development, evolution and involution, and a rainbow of awareness that runs unbroken from dust to Deity—but without relying on any pre-given, archetypal, or independently existing ontological structures, levels, planes, etc. In fact, the entire “great chain of being” disappears entirely from reality, but its essential features can be generated by the matrix if certain mythic-era assumptions are plugged into its parameters.

Of course, some sort of “great chain of being” has been central to spiritual traditions from time immemorial, whether it appears in the general shamanic form as the existence of higher and lower worlds, the Neoplatonic version of levels of reality (e.g., the amazing Plotinus), the Taoist version of realms of being (e.g., Lieh Tzu), the Buddhist version of a spectrum of consciousness (e.g., the 8 vijñanas), or the Kabbalah sefirot—and down to today’s newer wisdom traditions, from Aurobindo to Adi Da to Hameed Almaas. All of them, without exception, postulate the existence of levels or dimensions of reality or consciousness, including higher or wider or deeper dimensions of being and knowing—some sort of rainbow of existence, whose waves, levels, or bands possess an independent reality that can be accessed by sufficiently evolved or developed souls. In other words, they all postulate the existence of *metaphysical realities*—which is exactly what is challenged (and thoroughly rejected) by modern and postmodern currents.

Therefore, what is required is a way to generate that essential rainbow of existence but without any metaphysical or ontological postulates. In other words, IF we can generate the essentials of a spiritual worldview without the metaphysical baggage, then we can generate a spiritual worldview that will survive in a modern and postmodern world. That, in any event, is one of the central aims of Integral Post-Metaphysics (and its practical application, called “integral methodological pluralism”), both of which will be outlined in these excerpts. If we can succeed

in this endeavor, then all of those spiritual worldviews (from shamanism to Plotinus to Padmasambhava to Aurobindo) can be reanimated and utilized within a broader, non-metaphysical AQAL matrix, which can generate the same rainbow of existence but without the discredited metaphysical accoutrements, and thus one can still utilize their profound wisdom without succumbing to the devastating attacks of modern and postmodern currents.

I should also say that from now on—and certainly as evidenced in the following excerpts—I am writing only for students of my work. Every book written up to this point has made the assumption that the reader had no prior knowledge of any of my material. Thus, most of my books, especially since SES, had to start with a long summary of the AQAL framework. The first third of each book would therefore repeat the same general overview (which certainly contributed to the criticism that I was repeating myself. Which, of course, I was).

Anyway, I am no longer doing so (except for the occasional, continued attempts at popular summaries or overviews, such as TOE). Henceforth, for the most part, my writing (including the following) assumes not just a passing familiarity but a working knowledge of the essentials of the AQAL matrix. Readers lacking such might first read *A Brief History of Everything* and then *A Theory of Everything*. And *Boomeritis* for fun, though it's not required by any means. For the same reason, I have ceased responding to critics and am devoting myself to working exclusively with individuals who understand the integral approach (and whose criticism from within is much more accurate and cogent).

I hope you find the following excerpts enjoyable. If you want to become part of the dialogue surrounding this material, you might check integralinstitute.org for some of our present activities.

Best wishes, Ken

Excerpt A: AN INTEGRAL AGE AT THE LEADING EDGE

Introduction

Let us begin this overview by first noting what appears to be a rather dismal fact: today we hear a lot about **Cultural Creatives** and the new and exciting rise of an **Integral Culture**—a holistic, balanced, inclusive, caring culture that moves beyond the traditional and the modern and into a postmodern transformation. But, in fact, significant psychological evidence indicates that in today’s world, less than 2% of the population is at anything that could be called an “integral” wave of awareness (where “integral” means something like Gebser’s **integral-aperspectival**, Loevinger’s **autonomous** and **integrated** stages, Spiral Dynamics’ **yellow** and **turquoise** memes, Wade’s **authentic**, Arlin’s **postformal**, the **centauric** self and mature **vision-logic**, etc.).

The same evidence suggests, however, that a very large percentage of the population—close to 25%—is at the immediately preceding wave of development (which is Loevinger’s **individualistic** stage, Spiral Dynamics’ **green meme**, Paul Ray’s **cultural creatives**, Wade’s **affiliative**, Sinnott’s **relativistic**, etc.). Moreover, because most of this population has been at the green-meme wave for several decades, it appears that a large portion—perhaps up to one-third—are ready to move forward to the next wave of expanding consciousness—which means, move forward to a truly **integral wave of awareness**.

In other words, that modest 2% of the population that is now integral might soon swell to 5%, 10%, or more. I believe that, as with any evolutionary unfolding, we will especially start to see evidence of this increasingly integral consciousness at the growing tip, or at the leading edge, or in the avant garde (by whatever appellation)—in academia, the arts, social movements, spirituality, thought leaders. “Integral theories”—or attempts at such—are already starting to emerge across the board in academia, especially as the leading-edge theorists continue to throw off the yoke of extreme postmodern pluralism (and the green meme) and start finding not just the

incommensurabilities but the integral commonalities of cultures. There seems to be little doubt that in so many ways the growing tip is reaching toward the integral light....

In short, we appear to be entering **an integral age at the leading edge** (with significant portions of the culture at large to follow).

This is exactly why, I believe, Jeffrey Alexander, America's most gifted and influential social theorist (and, I might add, brother of the late Skip Alexander, one of the finest theoreticians of consciousness this country has ever produced), **found three major movements** in modern social theory: functionalism, microsociology, and synthesis.

1. The first movement, especially prominent after WWII, was classic structural-functionalism, or simply **functionalism**, which touched virtually all areas of psychology and sociology, and found its ablest proponent in Talcott Parsons. This was an admirable attempt to bring a *systems theory* perspective to the human sciences, but one marred by the limited adequacy of theoretical physics and biology at the time. If you are trying to draw parallels between natural and social systems, and natural systems are thought to be governed by concepts such as equilibrium and homeostasis—instead of seeing that they also possess self-organization with an intrinsic drive to higher levels of order out of chaos—then you are going to arrive at a very *static* social systems theory, one that could (and would) be charged with being a thinly disguised form of political conservatism. Your systems theory is a Republican in drag.

In many ways, classical functionalism was the product of a conceptualization capacity whose center of gravity was still formal operational (orange-meme), which tends to cognize universal systems, but only insofar as they are more static and unchanging, and not in their dialectical, chaotic, and transformative modes (which tend to be best captured by postformal cognition). Still, the insights and contributions of Parsons were so profound and so far-reaching that all present-day theories, if they hope to be adequate, attempt to “include and transcend” Parsons (as has Habermas, Luhmann, Alexander, Bailey, etc.). Parsons, for example, had an unerring intuition of the necessity to include all four quadrants in any social theory, which he

called “four generic types of subsystems”: the organism (UR), the social system (LR), the cultural system (LL), and the personality (UL). Still, classic functionalism was doomed in its original form, and it began, especially in the late sixties and early seventies, to be eclipsed by the next wave of social theory, that of *microsociology*.

2. As the green meme started to emerge on a more widespread scale, it began to displace the orange meme at the leading edge of the academic elite, and thus the modernism of orange universalism gave way to the postmodernism of green pluralism. Where the former was marked by static universal systems governing all cultures, the latter was marked by relativism, multiculturalism, diversity studies, and incommensurabilities of every imaginable variety. This was, in many ways, the first move from formalism to postformalism, and the result was a much-needed turn away from abstract grand theories, big pictures, metanarratives, and universal formalism, toward a detailed attention to particulars, to cultural nuances and important differences, with an emphasis on marginalized sectors and heterogeneity. Orange-meme sociology gave way to green-meme sociology, and the age of **microsociology** began.

Three decades of microsociology have show us both its strengths and its weaknesses. By the middle 1990s, the weaknesses had become increasingly obvious and insurmountable, and microsociology was replaced at the leading edge by accelerating attempts to find an integral interpretation that incorporated the important contributions from all of the previous approaches, including functionalism and microsociology. As Alexander points out, social theory therefore entered its emerging third phase, so that “it is not surprising, therefore, that contemporary theorists have returned to the project of synthesis.”¹

3. Thus we arrive at today: a *project of synthesis*, an **integral age at the leading edge**, which is only a few years old. As a larger movement (spreading outward beyond a handful of pioneers over the last few decades), it is really just now beginning with the dawn of the new millennium. What this larger movement very likely represents is the transformation from green to yellow, from intra-cultural to trans-cultural, from ethnocentric pluralism to global integralism,

from relativistic to holistic. Whereas the “big pictures” of the orange “universal systems” harshly excluded an appropriate sensitivity to cultural diversity, to world-making intersubjectivity, to the enactive (not merely representational) activity of cognition, and to the irreducible heterogeneity of many systems, the post-green big pictures that are starting to emerge at the dawn of the age of synthesis all explicitly include and build upon the green-meme contributions of microsociology, but without getting lost in an attention to trees so fierce that it denies the existence of forests.

An integral age at the leading edge, a big picture of many forests, an age of synthesis arising from the ruins of pluralism washed ashore. This integral age at the leading edge is one of the essential themes of the following presentation.

Part I. **KOSMIC KARMA: WHY IS THE PRESENT A LITTLE BIT LIKE THE PAST?**

Overview

Moment to moment, the universe hangs together. Somehow, the universe of this moment and the universe of the previous moment are both similar and different: similar, in that the present moment resembles the previous moment in important ways; different, in that it is also significantly new. The more you think about it, the more mysterious the whole thing is....

The inheritance of the past is one the central topics we will be discussing, because it turns out to be a key in almost every area of human inquiry. But it also touches on what is perhaps the most crucial question in the whole area of spirituality.

All of the ancient spiritual traditions—from shamanism to Neoplatonism to Christian mysticism to Buddhism—maintain that, in addition to this physical realm, there are higher realms or higher dimensions or higher levels of reality, and these higher levels *already exist* in some sense (e.g., as Platonic forms, Hegelian ideas, Aurobindian involutionary deposits, archetypes of all varieties, or as shamanic higher and lower worlds). For Aurobindo, to give one example, all

of the higher levels of reality are laid down by involution and therefore pre-exist in a real sense, and thus these higher levels unfold or become manifest during evolution (so that evolution is simply unfolding what involution enfolded or deposited). But all of the modern and postmodern currents deny that there are higher realms—or, more generally, deny that there are any sort of pre-existing givens at all (including any sort of pregiven ontological structures: modernity denies higher structures, postmodernity denies structures altogether: either way, spirituality is out). Spiritual traditions insist that salvation is in some sense a re-discovery of an already existing reality. Postmodernity insists that nothing is discovered, everything is constructed. The entire ‘fight’ between ancient and modern hinges on that central issue: are there ontologically pre-existing levels or dimensions of reality?

If there is ever to be a spirituality that can be respected by the modern and postmodern world, it will have to figure out a way to fit those two contradictory claims together. What is required, to put it bluntly, is a way to derive all of the basics of a spiritual worldview—from satori or salvation as a ‘coming home’ to the existence of levels or waves of consciousness—but without postulating ontologically pre-existing realities. If we can’t do that, then spirituality is dead in the modern and postmodern world of intellectual respectability.

We begin this attempt at a **post-metaphysical reconstruction of the spiritual traditions** with the prosaic point of the inheritance of the past....

Kosmic Karma in Four Dimensions

The inheritance of the past: it seems that all holons, to some degree, are influenced by the holons that went before them. (A **holon** is a “whole/part,” or a whole that is also a part of other wholes: a whole atom is a part of a whole molecule, which is part of a whole cell, which is part of a whole organism, etc. The Kosmos is fundamentally composed of holons, all the way up, all the way down. And all holons seem to inherit some sort of past....) The universe of this moment is

somehow different from the universe of the preceding moment, but it also shares some similarities, yes?

In other words, this present moment is both similar to the preceding moment and also somehow different. That issue—the relation of the present to the past—turns out to be crucially important, for it touches every aspect of our lives (psychological to sociological to spiritual). It appears that the past-and-present somehow constitute an inheritance-with-novelty—in other words, the present moment is a mysterious mixture of karma and creativity. That *karma-and-creativity* appears to be the very matrix of our moment-to-moment reality, and how we conceptualize that matrix will therefore be a crucial ingredient in our own self-understanding.

We open with the specific topic of **karma**, or *the inheritance of the past*. In order to get started, let's simply assume that the present moment inherits something from the past, and let us attempt to outline some of the features of this inheritance in order to show what might be involved.

This inheritance is almost certainly a four-quadrant affair—that is, all four dimensions of holons bequeath their present to the future as the past. The **four quadrants** are four of the basic ways that we can look at any event: from the inside or from the outside, and in singular and plural forms. This gives us the inside and the outside of the individual and the collective. These four perspectives are not merely arbitrary conventions. Rather, they are dimensions that are so fundamental that *they have become embedded in language* as pronouns during the natural course of evolution. These embedded perspectives show up as first, second, and third person pronouns. Thus, the inside of the individual shows up as “I”; the inside of the collective as “you/we”; the outside of the individual as “it/him/her”; and the outside of the collective as “its/them.” In short: I, we, it, and its.

(Technically, “you” is second person and “we” is first person plural, but I often include “we” as part of the “you” dimension, because in order to treat you as a “thou” and not an “it,” there must be an overlapping horizon of mutual understanding or “we.” So I often use “you/we”

as the general second person perspective, with the four basic dimensions therefore being I, we, it, and its, or the inside and outside of the individual and the communal.)

These four perspectives, embedded in virtually all languages, appear to represent **four major dimensions of being-in-the-world**. There might be others, but these four are especially fundamental. (For an extensive account of the four quadrants, see *A Brief History of Everything*.)

The idea, then, is that the inheritance of the past can be looked at from all four perspectives—or in all four dimensions of being-in-the-world—with each one showing us something important in the overall equation. Different theorists have given cogent explanations for some of these dimensions and their types of karmic inheritance, but we want to include all of them in a more integral explanation. Some of these types of inheritance are shown in figure 1, “The Inheritance of the Past in All Four Quadrants.”

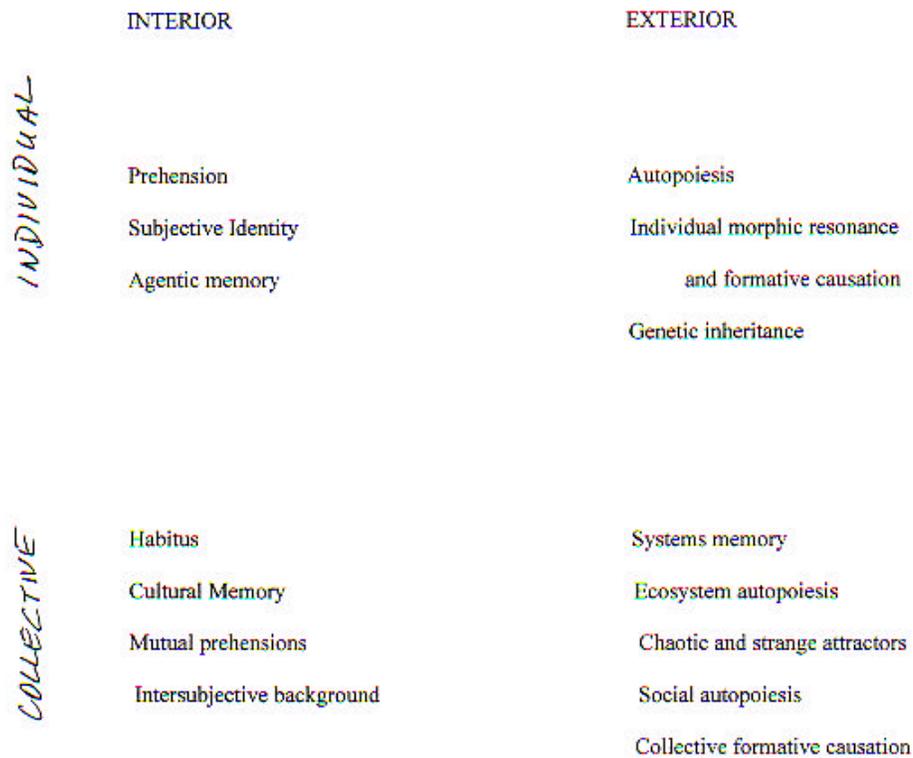


Figure 1. The Inheritance of the Past in All Four Quadrants

For example, **Whitehead** gave the classic explanation of how the interiors of individual holons are passed on as future inheritance: namely, *prehension* (or prehensive unification). Each actual occasion—or each present moment—as it comes to be, does two things at once: it prehends (or experientially feels) its immediate predecessor (i.e., the present moment touches, prehends, or feels the immediately preceding moment), so that the subject of this moment becomes the object of the subject of the next moment. This means that the present moment is, in part, *determined* by

the nature of its predecessors: it is handed an inherited past as part of its feeling in this moment, a feeling that is therefore a prehensive unification of *all* ancestral feelings, and this inheritance is the basis of a type of *causality* exerted by the past on the present (i.e., a causal inheritance of past objects that were once present subjects, or a feeling of feelings). But two, according to Whitehead, the present moment then *adds* its own moment of *creative novelty* or *emergence*—it feels something *entirely new*—and thus it also *transcends* the past to some degree. Thus, each moment transcends and includes its predecessors, inheriting a history of feelings (or objects that were once subjects) but also adding a creative novelty found nowhere in the past—but a creative novelty that then itself becomes part of the inherited feelings handed to the future, which will then likewise transcend and include that inheritance.

With a few qualifications, I strongly agree with that general Whiteheadian view of the nature of moment-to-moment existence. Whitehead actually discovered the inescapable reason that the Kosmos is *holarchical* in its very nature: each moment transcends and includes its predecessors, the very definition of holarchy.

But we add a crucial item: this is a four-quadrant affair, all the way down—a view we also call *quadratic*. That is, each holon or actual occasion has subjective (I), intersubjective (we), objective (it), and interobjective dimensions (its)—the four quadrants. Whitehead brilliantly described moment-to-moment manifestation in the subjective and (to some degree) intersubjective dimensions. But we will be adding non-prehensive inheritance in the objective and interobjective dimensions, as well as fleshing out the intersubjective realms in a way that is clearly not found in Whitehead. David Ray Griffin, Whitehead's ablest interpreter, suggested that Whitehead's approach be called *partial dialogical* and the quadratic approach be called *complete dialogical*, which seems fair enough [See "Do Critics Misrepresent My Position? Appendix A—My Criticism of Whitehead as True but Partial: The Move from an Incomplete Dialogical View to an Integral/Quadratic Formulation," posted on this site].

Nonetheless, the important point is that Whitehead was the first to spot the general features of the microgenetic holarchical nature of moment-to-moment existence, so we are more than glad to be Whiteheadians in this general area.

However, for the *objective* and *interobjective* dimensions of Kosmic inheritance, we might look instead to **Rupert Sheldrake's** notions of morphic resonance and formative causation. Sheldrake's work, as we will see, is merely one of many types of explanatory theories in the Right-Hand quadrants, but it has received a fair amount of critical praise and highlights elegantly some of the important issues involved in the inheritance of objective and interobjective forms. But it is important to realize that the points we are making about Right-Hand inheritance can be made without reference to Sheldrake's work. Most of the types of inheritance in the Right-Hand quadrants are very simple and prosaic affairs, involving, for example, biological and sociological autopoiesis, DNA replication, systems maintenance, chaotic and strange attractors, institutionalized forms and modes of production, and so on—not very far-out stuff, actually, at least when compared with some of Sheldrake's ideas. But Sheldrake has highlighted some of the more esoteric aspects of formative causation, which makes the essential points glaringly obvious, so we will use his examples as some of the countless instances of Right-Hand inheritance.

What we will be doing, then, is surveying the various theories of inheritance—or theories of how the past influences the present (see fig. 1). And because, in the Age of Synthesis, we do not want to leave out any valid perspective or any dimension from our integral account, we will attempt to fashion an overview that includes all of them. This will give us the beginning outline of the inheritance of the past in all four quadrants, or a *quadratic account of Kosmic karma*.

A quick summary of what we will find is that each holon seems to relate to its predecessor(s) as follows:

- 1. In the Upper Left**, each holon is a *prehensive unification* of all of its predecessors—a subject of experience that, as it comes to be, prehends the previous subject as object of the new

subject: that is, it *feels* the *interiors* of its predecessor: it is a feeling of a feeling, and thus it inherits—and to some degree is determined by—the feeling/awareness of its immediately preceding moment of feeling-awareness (which in turn once *felt* its predecessor, and so on). This is dryly described as “prehensive unification,” but what that really means is that I feel the feelings of the moment before me, which had felt the feelings of the moment before it, so that what I am now experiencing is a felt condensation of the entire history of the Kosmos in its subjective dimensionality (a microgeny that recapitulates cosmogeny).

This present prehension of past prehensions constitutes a type of inescapable *causality* exerted by the past on the present (this, of course, was Whitehead’s answer to Hume). If you (or any holon) can feel this moment, and then feel this moment, then there is a *degree of continuity* (and therefore *a degree of causality*) of the previous moment on this moment, because the previous moment is now a *part* of the *whole* of this moment (i.e., the whole of one moment becomes a part of the whole of the next, which is why moment-to-moment existence is a holarchy of holons—and that is prehensive unification: each moment is a holon that transcends and includes its predecessors). The “include” aspect inescapably builds into the present moment a *felt causal influence* from the past. To put it bluntly, the fact that I can *feel* the previous moment means that I am to some degree *influenced* by the previous moment—the present is influenced by the past because it can feel it.

This is karma, yes? Or certainly a part of it; in this case, the influence of yesterday’s feelings on today’s feelings. This inheritance is virtually impossible to deny coherently. (Hume thought he had demolished any such inductive sequences, but all he demolished is any attempt to prove that tomorrow’s patterns will be the same as today’s; he did not disprove that today’s patterns are similar to yesterday’s. In fact, Hume flirted with the notion that causality was actually something like a habit, but it was really **Charles Peirce** who first clearly pointed out that what we call laws of nature are actually *habits of nature*, a point we will return to shortly.)

But I am not *merely* determined by my felt karma; I can also, to a degree, *transcend* the past via my own *creativity*: in this way only is some degree of freedom possible. There is not only the inheritance of the past, there is, in each moment, a spark of novelty, of newness, *of something that never came before*. “The creative advance into novelty,” as Whitehead put it—and he saw it as an inescapable feature of the Kosmos all the way down. (Creativity for Whitehead, of course, is simply a spark of Spirit present in all actual occasions.) So we both *inherit the past*—or include and embrace it in our own feelings (and thus we are influenced and molded by the past to some degree)—and also *go beyond the past*, with this moment’s intrinsic capacity for newness, for novelty, for transcendence, for a little bit of freedom.

This subjective or prehensive inheritance-and-transcendence was one of Whitehead’s great discoveries.

Incidentally, Whitehead’s analysis of the micro-structure of all subjective occasions (i.e., the subject of one moment becomes the object of the subject of the next moment, or a feeling of feelings) *explains why we see the same general pattern on the macro scale*: that is, psychological development is marked by one major pattern: the subject of one stage of development becomes an object of the subject of the next stage of development. Whitehead, as I said, simply gave the infrastructural analysis of why this holarchical unfolding is universally and inherently built into the Kosmos.

2. In the Lower Left: Moving a bit beyond Whitehead, each subjectivity exists in a sea of intersubjectivity, and this sea, too, has its karmic influence. *Individual holons and communal holons prehend their past*. They are both influenced by the past, and then move beyond it to some degree. They transcend-and-include their past feelings and shared values with moments of creative emergence. Cultures, in short, have memories.²

This *cultural background*—the Lower-Left quadrant—is inherited moment-to-moment by the subjects arising within its horizon, not as a separate entity but as the form or pattern of

their communal arising. This is what we mean when we say that communal holons canprehend their past—or in very simple form, we say that there are *cultural and social memories*—there are patterns in culture and society that repeat themselves to some degree, the lingering influence on the present of a past that was once present and is therefore carried forward to some degree as Kosmic habit.³ In the Lower Left, we refer to **cultural memories**, which are reflexive and pre-reflexive meaning-backgrounds, communal feelings, and mutual prehensions (or intersubjective inheritances), and in the Lower Right, we refer to social or **systems memories**, which are interobjective patterns of systems maintenance and ecological reproduction. The explanation of how sociocultural patterns reproduce themselves is a primary task of all social theories, from social autopoiesis to ecological sustainability.

But let's not overlook the fact that each holon is transcend-and-include: any holon arising in mesh with a particular culture can, to some degree, transcend that culture. With reference to the cultural background, the cumulative moments of creative novelty in subjectivity can eventually alter the very form of intersubjectivity itself (we say that the quadrants arise together and tetra-evolve, or that they “tetra-mesh,” or that they “tetra-interact”). But the general point for now is that *cultural holons have a past*, a karmic inheritance, and this inheritance of intersubjectivity (or the inheritance of mutual prehensions by members of a culture) is an important part of Kosmic karma.

When **Bourdieu** writes about a culture's *habitus*; when **Heidegger** describes a culture's interpretation of Being nestled in *historicity*; when **Gebser** outlines major frames of interpretation (magic, mythic, mental, integral) inherited in various cultures over time; when **Gadamer** details the inescapable significance of *solidarity* in establishing mutual understanding—in all of those cases, they are describing *cultural inheritance*—the collective feelings (or mutual prehensions) of the Lower-Left quadrant as they are carried forward as a Kosmic habit influencing all individuals meshed with those cultures. We will return to this crucial idea of *cultural background*—and its inheritance (and transcendence)—throughout this presentation. So important is it—especially for

including the postmodern moment in our integral account—that we will devote an entire section to it **Excerpt B** [soon to be posted]. But first, let’s finish our quick survey by looking at inheritance in the remaining quadrants:

3 and 4. Upper-Right and Lower-Right Inheritance.

That is a brief outline of *subjective* and *intersubjective* inheritance, the means by which the *felt dimensions* of the Kosmos reproduce themselves moment to moment, while still allowing creative emergence (which then itself becomes part of the inheritance future holons will transcend and include).

But each holon also has *objective* and *interobjective* dimensions; that is, there are objective correlates of individual and cultural prehensions. One version of this inheritance of exterior realities is offered by Rupert Sheldrake. Briefly, we reframe Sheldrake’s general theories as follows:

Each holon—when looked at in an exterior, **third-person** perspective (and not in the **first-person** prehension of the UL or the **second-person** mutual prehensions of the LL)—appears as a morphic unit with a morphic field. The **morphic unit** refers to the stable pattern, structure, or form of the holon; and the **morphic field** refers to the various fields surrounding the unit (which will be explained as we proceed). I agree with Sheldrake on those essential items, as long as we remember that these terms refer to a holon *as viewed in third-person singular*—that is, the Upper-Right quadrant only. But in that dimension, it is quite true, as Sheldrake puts it, that “morphic fields are associated with holons at all levels of complexity.” And holons, Sheldrake correctly points out, “are arranged in nested hierarchies or holarchies.”⁴

Sheldrake often uses the analogy of a vibrating string: if you put two pianos together and hit the C note on one piano, the same string will start vibrating in the other piano. The two strings vibrating together is called *morphic resonance*, the one string causing the other to vibrate is

analogous to *formative causation* (because the form or pattern of one string is causing or evoking the same form or pattern in the other).

A morphic unit/morphic field is thus one aspect of (or one way of looking at) a holon's Upper-Right dimension. Accordingly, while each holon is *subjectively* prehending its previous feelings (UL)—and thus being determined in part by its past feelings—the exterior *form* of the holon (UR) is resonating with its previous forms, and therefore its present form is determined to some degree by the past forms of its own manifestation: this is morphic resonance and formative causation operating in an individual.

Thus, among other things, what appears in the Upper Left as prehensive unification appears in the Upper Right as moment-to-moment individual formative causation. And just as subjective prehension (UL) is meshed with fields of felt intersubjectivity (LL), so individual objective forms (UR) are meshed with fields of interobjectivity (LR)—that is, *both individual and social holons have morphic fields* (with all of them tetra-arising and tetra-evolving in AQAL space).⁵ We will return to the collective forms in a moment.

A morphic field is sometimes referred to as a **morphogenetic field**. “Morphogenetic” means “developmental groove”—it means “structural or formal” (morphic) “creation or development” (genetic). “Morphogenetic field” is a term often used in biology (e.g., Waddington) to refer to the *patterns that govern the development of biological forms and structures*, but Sheldrake's point (and I concur) is that all holons (or morphic units) have morphogenetic fields, which is why he uses the terms “morphogenetic field” and “morphic field” interchangeably.

So what does Sheldrake mean by morphic field (and the related notion of structural or formative causation)? Here's a typical example: as Sheldrake points out, when complex protein molecules first emerged, they could have settled into any number of equivalent forms or structural patterns. There are no known physical laws that state that only one of these many forms must occur. But when enough molecules settle into a particular form, all subsequent

molecules, even in a different time and space, will settle into the same form. Sheldrake introduced structural or formative causation to account for this empirical fact, which cannot be accounted for by any known physical forces. Once a molecule (or any holon) settles into a pattern or form, that form appears to exert a type of influence on all similar forms—that is formative causation exerted by one morphic field on similar morphic fields (“morphic resonance”).

Sheldrake gives example after example of morphogenetic fields guiding subsequent development of individual morphic forms. Once a difficult task has been accomplished anywhere in the world—from crystallizing complex molecules to rats learning a particular maze to linguistic words being created—the same task can more easily be repeated anywhere else in the world (as has already been demonstrated by numerous empirical studies). This is identical to what we see with the emergence of psychological forms: for example, in historical unfolding, once the red meme had significantly emerged anywhere in the world, it began more easily appearing elsewhere around the world. A difficult, novel, creative emergence had settled into a Kosmic habit now available to subsequent holons.

Extensive work on the inheritance of forms has already been done. Brian Goodwin, for example, in such important books as *How the Leopard Got Its Spots* and *Signs of Life*, demonstrates that many processes in nature are pulled by complex dynamics toward very specific forms. Of over 250,000 species of higher plants, only *three* basic distributions of leaves around stems are actually seen. The bone structures of paws, hands, and fins have similar forms in all vertebrae. In other words, only certain forms are available for holons of a given class, and these deep forms are a product of past inheritance that, as Kosmic habits, act as dynamic attractors (strange, chaotic, etc.) that severely limit the types of forms that can arise in interobjective space, even though there is absolutely nothing in the forms themselves that impose these limits.

Now, Sheldrake is claiming only that these patterns or deep forms are inherited. He is saying that the general structure or form of a molecule is collectively inherited; he is not saying

that what this molecule actually does is collectively inherited. That is, the general form of the holon is collectively inherited, not any action or content of that form. This is simply an instance of a very widespread pattern that we often find: namely, various deep features (in all four quadrants) are collectively inherited, but not their surface features.⁶ As we will see, all this really means is that the deep features or Kosmic habits of the universe are simply *probability waves* for finding a particular type of occurrence in a particular spacetime locale. We will return to this important theme in Part II (below).

Although we sometimes use “morphogenetic fields” to mean any deep features of the waves in any quadrant (interior or exterior), it must be repeated that technically a *morphogenetic field* (or a *morphic field*) is an *exterior* description of holons, not interior. When you are experiencing subjective or intersubjective realities, you never say, “I’m feeling a nice morphogenetic field.” The *actual realities* of the Left-Hand quadrants are immediate feelings, desires, impulses, images, perceptions, values and mutual understanding, expressed in *first-person* (“I”) and *second-person* (“you/we”) perspectives. When we look at those phenomena *from the outside*, in *third-person* perspective (“it/its”), we see exterior forms, morphic units, morphogenetic fields, deep structures, social systems, the ecological web of life, and so on. It is crucially important not to confuse exterior descriptors (e.g., morphic fields) with actual interior realities (feelings, prehensions, etc.). All of them have a place in the AQAL matrix, but none of them can be reduced to, or fully explained by, the others.

In the Lower Right, there exist various *collective fields* and *systems* of morphic units. These *interobjective* fields are the correlates of *intersubjective* feelings and values. That is, if you look at the communal existence of any holon from the outside, in a third-person stance, you can discern various forms, structures, systems, patterns of interaction, and collective morphogenetic fields; but if you look at those exterior collective forms *from within*, in a second-person collaborative inquiry and participatory enactment, you will find, not structures or fields or systems, but mutual feelings, shared values, vivid lived experiences, and so on, all of which are

adequately described only from a first- and second-person perspective. (See below, quadratic methodology, or integral methodological pluralism).

But to continue to focus on the objective and interobjective dimensions (which are the only ones adequately addressed by Sheldrake's theories). Like all other developmental grooves in any of the quadrants, these interobjective fields first emerged to some degree as creative novelty but are now inherited forms that must be included (even as transcended), forms that therefore *guide* the types of exteriors that *can* emerge under their influence (just as intersubjective contexts mold the types of subjectivity that can tetra-mesh with their contours).

So this is what we have: In the Upper Right, there are various morphic units (with their associated morphic fields)—such as quarks, atoms, molecules, cells, organisms, and so on. These are seen by looking at an individual holon from the outside in a third-person perspective. In other words, these morphic units are the objective structures or *exterior forms* of that holon's *subjective feelings* or prehensions, which themselves can only be seen or felt from within (which is the Upper Left). Thus, the exterior form is atom, the interior is prehension; the exterior form is cell, the interior is irritability; the exterior form is plant, the interior is sensation; the exterior form is animal with neural net, the interior is perception; the exterior is animal with brain stem, the interior is impulse; the exterior is animal with limbic system, the interior is emotion, and so on. Interior feelings are inherited via prehensive unification, exterior forms via morphic resonance and formative causation (among others).

Moreover, both interiors and exteriors exist in individual and collective varieties. In short, there are individual prehensions (UL) and collective prehensions (LL), as well as individual morphogenetic fields (UR) and collective morphogenetic fields (LR).

What Sheldrake is offering is a wonderful description of the inheritance of structures or forms in the Right-Hand quadrants. That is, Sheldrake's formative causation refers to the inheritance of various structures or forms that first emerged, in part, as creative novelty, but have now become Kosmic habits that are inherited by subsequent forms—and those are exactly the

objective correlates of Whitehead's *subjective inheritance of prehensions*. In other words, all four quadrants inherit their past, then add a moment of creativity that transcends the past to some degree.

It appears, then, that all holons have a four-dimensional inheritance or karmic residue, which forms the inescapable platform from which any present moment must be launched. The previous AQAL matrix can be transcended to some degree, but it also *must be included*, or the present suffers a dissociation and repression of its own yesterday. The typical postmodern view that history is merely a series of complete ruptures with no continuity might actually be postmodernism's description of its own dissociative pathology, puffed up to ontological priorities. In any event, most of postmodernism overlooks the brilliant insights of Whitehead about what must be happening in this moment in order for it to pass into the next. There are not just ruptures, but inclusion-with-some-ruptures, and the inclusion part builds a holarchy into this and every moment. Sheldrake, at any rate, is not ignoring this important inclusion or inheritance of the past, and he is attempting to account for some of its objective forms and deep features.

Summary of Part I

So far we have covered a very brief introduction to four of the basic dimensions of **being-in-the-world**—the Upper-Left quadrant: **subjective** (*intentionality*; first person singular); the Upper-Right quadrant: **objective** (*behavior*; third person singular); the Lower-Left quadrant: **intersubjective** (*culture*; second person and first person plural); and the Lower-Right quadrant: **interobjective** (*social systems*; third person plural).

We noted that all of those dimensions of being-in-the-world have aspects that seem to endure and other aspects that appear novel—what we called **karma** and **creativity**, respectively. The enduring aspects of Kosmic inheritance we also called **Kosmic habits**, which are not pre-given realities (archetypal, Platonic, Hegelian, or Aurobindian), but rather Kosmic patterns and routines repeated by enough holons that they become engrained in the Kosmos and are

henceforth carried forward, either as enduring physical patterns or self-organizing autopoietic entities of one variety or another. We gave several examples of karmic inheritance or Kosmic habits found in all four quadrants, such as subjective prehension (UL); intersubjective inheritance and cultural memory (LL); organismic autopoiesis and individual morphic resonance (UR); and systems memory and interobjective formative causation (LR). Those are only a few of the types of karmic inheritance available, but they are enough to indicate some of the important factors involved in Kosmic habits and the crucial dimensions of all holons that are being preserved and carried forward (even as the creative aspects of the Kosmos continue to introduce novelty and transcendence). Needless to say, any truly integral account of the Kosmos needs to touch bases with all of those vital realities.

This is especially important because each of those four dimensions has a different methodology of disclosure and enactment. As we will see: **empiricism** and **behaviorism** primarily engage the Upper-Right quadrant; **introspection** and **phenomenology** primarily engage the Upper-Left quadrant; **hermeneutics** and **collaborative inquiry** primarily engage the Lower-Left quadrant; the **ecological sciences**, **structural-functionalism**, and **systems theory** primarily engage the Lower-Right quadrant. Of course, there are many more types of inquiries available, but these highlight some of the more historically significant.

All of these different methodologies are not important merely as historical traces; they are all crucial ingredients of what might be called an **Integral Operating System (IOS)**—an integral methodological pluralism that touches all the bases in an attempt to endlessly open itself to the creatively self-disclosing and self-enacting Kosmos: to feel all feelings,prehend all prehensions, as the Self feels itself to infinity and back, never fixed but always changing each and every moment in an open-ended free for all cascading through the AQAL matrix and infinitely beyond. Once an individual downloads and installs IOS in their own worldview, they begin more conscientiously attempting to include all views, all approaches, all potentials in their own sweep of the Kosmos. IOS initiates a self-correcting, self-organizing outreach to all aspects of the

universe previously marginalized by worldviews that were too narrow, too shallow, too self-enclosing to serve as more transparent vehicles of Kosmic consciousness.

At this time, as the center of gravity in the cultural elite begins to shift from green pluralism to yellow integralism, various types of IOS are being increasingly and actively sought by the academic avant garde—integral theories and practices of all sorts are starting to tentatively arrive on the scene. We are indeed entering **an integral age at the leading edge**. Exactly what that means, of course, remains to be seen, for the integral age is only beginning vaguely to shimmer on the cultural horizon, right out there in the slowly clearing fog of the misty tomorrow....

In the meantime, in order to assist any sort of integral understanding being able to reproduce itself autopoietically, and thus be carried forth as an enduring insight of the Kosmos into itself, it appears that we need, among many other things, a way to interpret Kosmic habits that does not rely on outmoded and discredited metaphysical postulates (such as pre-existing ontological levels or structures of reality, archetypes as fixed and pregiven forms, involution as a predetermined path, phenomena as existing independently of subjects perceiving them, etc.). Unless we can fashion such, any IOS will be burdened with outmoded Kosmic habits that now prevent the novel emergence of more integral modes in the creatively unfolding AQAL matrix. In short, the next step in an Integral Post-Metaphysics is to replace pre-existing ontological structures with... what?

Part II. KOSMIC HABITS AS PROBABILITY WAVES

Prologue

Let us begin by giving some examples of Kosmic inheritance as played out in human holons. The general thesis, of course, is that certain individual and collective prehensions and forms (in all quadrants) have been inherited to some degree. This means, for example, that all of the waves up to today's leading edge of evolution (which in humans roughly means, up to around the green wave) have been inherited as morphogenetic grooves and contextual fields. They originally emerged in part as creative novelty at evolution's leading edge, but then were laid down as Kosmic habits and thus form part of the building blocks of future occasions.

The older the meme, of course, the more fixed a Kosmic habit it has become. Thus, the basic features of **beige**, or the sensorimotor wave, are similar the world over: all humans, without exception, require food, water, warmth, shelter. **Purple** has been around for at least 30,000 years; **red** for at least 10,000 years; **blue**, for around 3,000 years—so, relatively speaking, there is very little wiggle room left in their deep features: they have become morphogenetic grooves of intense habitual patterns almost impossible to break (even though originally they emerged in part as creative freedom). **Orange** is only 300 years old, but most of its forms seem to have settled in. **Green**, on the other hand, is only around 30 years old (on any sort of collective scale), so green has a fair amount of wiggle room left in its structure; it is not yet a fully settled habit. The leading-edge today is around **yellow**, which means that any of you who are pioneering integral ideas and practices are actually creating the Kosmic habits that future generations will inherit, even as future generations continue to move beyond yellow.

(Note on the use of Spiral Dynamics: as many of you know, Spiral Dynamics is a particular model of psychological development based on the work of the pioneering developmentalist Clare Graves. Graves in particular based his model on the developmental line of *values*, which is why Spiral Dynamics continues to refer to *vMememes*, short for “value memes.”)

For Integral Psychology, the values line is one of perhaps two dozen equally important developmental lines or streams of consciousness evolution; what we want to avoid, of course, is any sort of “line absolutism,” just as we want to avoid quadrant absolutism, state absolutism, or type absolutisms [see **Excerpt C**]. Still, the great advantage of the Gravesian values line is that it is easily understood, it has a considerable amount of empirical evidence, and it is one of the most fundamental of human motivators, so it works extremely well as a simple overview/example of human development. But, needless to say, the main points that I am making can be made with any valid developmental line; see *Integral Psychology* for extensive discussion of this theme; for a brief introduction to Spiral Dynamics, see *A Theory of Everything* [and the intro to CW7, posted on this site in Archives]. For Don Beck’s important extension of Spiral Dynamics into Spiral Dynamics Integral, see www.spiraldynamics.net and www.globalvaluesnetwork.com.)

As we were saying, the leading edge today is around **yellow**—the frothy, chaotic, wildly creative leading-edge of consciousness unfolding and evolution, still rough and ready in its newly settling contours, still far from settled habit. This is why today, right now, we want to try to lay down as “healthy” a yellow groove as we possibly can, because we are creating morphic fields in all subsequent Kosmic memory. If a particular wave emerges in a deformed, warped, fragmented, or pathological fashion—due to various types of turbulence in AQAL space—then that unhealthy form will be inherited by the future, with terribly unfortunate results.

Of course, each subsequent wave is “transcend and include,” so subsequent waves can, to some extent, transcend and redress previous pathologies: but at what a cost! To some degree this is what happened with orange—the great emergence of the orange wave during the Enlightenment was fairly quickly warped into its *flatland version*, and we of today have unavoidably inherited this fractured Kosmic habit—the dissociation of the value spheres instead of their differentiation—a pathological Kosmic habit, a disenchantment of the world, which postmodernism arose to redress.

With mixed results, alas. In fact, it appears that the great potential of the green meme, which took as its vehicle postmodernism, actually arrived on the scene *already corrupted* to some degree by the modern flatland pathology: a flatland habit so ingrained that green not only succumbed to it but magnified it, glorified it, drank the hemlock and called it fine wine. The green meme emerged, almost from the start, in a somewhat pathological or malformed version (caught, as it was, in the morphogenetic turbulence caused by the orange flatland warp in the AQAL matrix). This pathological flatland version of green, due to its association with such trends as politically correct coercive movements, we call “the mean green meme”; and the MGM, over the last three decades, settled into a rigid, unyielding, morphogenetic groove that took all human beings who were attempting to move beyond orange and slammed them into the prison of a flatland pluralism.

Nonetheless, because the green meme and the MGM—and boomeritis—are only three decades old, their morphogenetic grooves have as yet been inscribed only lightly in Kosmic memory, and therefore concerted efforts now—by healthy green and healthy yellow—might yet turn the tide and bequeath to the future the great potentials of the healthy green wave, a Kosmic habit that all future generations could then draw on as a foundation for a more caring, sensitive, truly compassionate world, instead of a world dominated by thought police, green inquisitors, and one brutality or another parading as pluralism: barbarism with a smiley face.

(Of course, fifty-thousand years from now, green and yellow will be almost as determined as red or blue are now. At that time, most teenagers might be negotiating, not orange as they are now, but turquoise—orange they would have passed through probably around age 8 or 9 with a quick yawn. And the leading edge would likely be somewhere around coral/psychic, whose vast unformed potentials will start to crystallize and take on form as molded by AQAL space through future parameters as yet undetermined, still to emerge in part as creative novelty before they settle into predetermined habit. But that is why, today, it pays to focus on the two

waves that are the cusp of the Kosmic action right now—green and yellow—and attempt to contribute, as best we can, to their healthy versions as a gift to tomorrow....)

In short, the leading-edge of creative novelty is, in today's world, somewhere around yellow, which means that the deep features of the memes from beige to beginning green have already been laid down as Kosmic habits—and the earlier the meme, the more settled and determined it is.⁷ Thus, in today's world, the deep features of memes up to around green are relatively set and “predetermined,” *not* by timeless archetypes but by prehensive unifications and morphic resonances from past creative novelties now settled into habits.

Probability Space in the AQAL Matrix

Because “postmodernism” has often meant “post-structuralism,” laypeople often misunderstand just what a “structure” is (and is not). Among experts, there is actually a broad and strong agreement as to the meaning of a “structure,” which is generally defined—by Sheldrake, Piaget, Habermas, Francisco Varela, Carol Gilligan, Jane Loevinger, etc.—as a “*dynamic system of self-organizing processes that maintain themselves as patterns through their dynamic reproduction.*”⁸ As dynamic self-maintaining patterns, structures are not fixed and unchanging, but rather are “unstably stable” (or a mixture of “*circularity and openness*”—i.e., oldness and newness—i.e., karma and creatively—i.e., include and transcend), and thus are capable of flexible adaptation to fluctuations: they evolve through “structural coupling” with enacted environments (we say, “tetra-evolve”). A structure is materially different moment to moment; its pattern or form, however, is unstably stable and endures as a Kosmic habit for as long as that class of holons exists in spacetime (i.e., for as long as it negotiates the selection pressures in the AQAL matrix).

It is common in postmodern forms of “new paradigms” to say that “structure” has been replaced by “process.” Actually, of course, structure was always defined as dynamic processes that reproduce themselves. But there are indeed two aspects of structures that researchers keep

emphasizing: their capacity for fluid change (e.g., accommodation and **adaptation**—or adjusting to their *communities*); and their capacity, if conditions are right, for remaining incredibly stable over long periods of time (e.g., **autopoiesis** and assimilation—or stable *agency*).

Keep in mind, for example, that there are living bacteria on earth that have remained unchanged *for over one billion years*. There are insects species that have remained unchanged for over ten million years; reptilian forms, over 5 million years—not to mention the forms of many atoms and molecules that are close to 15 billion years old: that is an awesome capacity for stable agency! In humans, the beige meme has remained essentially unchanged for 500,000 years; the purple meme, for 30,000 years; red, for 10,000 years; blue, for 3,000; orange, for 300; green, for 30 (and we are now on the frothy, creative edge of human evolution where new and higher potentials, although explored, co-created, and enacted in idiosyncratic forms by relatively rare pioneers, are just starting to emerge and crystallize on a widespread or cultural basis—much more about that later).

What is required, then, is a way to account for “structure” without falling, shall we say, into structuralism, or a *reification* of structures as some sort of ontologically existing molds (which is what both the perennial philosophers and the structuralists did, in their own ways, both of which need to be jettisoned in that regard).

We saw that deep features are inherited, not surface features. That is, even though the general patterns (or morphogenetic grooves) of these holons are handed to us by Kosmic karma, all of the actual contents, surface features, and expressions of these habitual patterns are determined by relative, culturally, and personally contingent factors in all four quadrants.

But this is where we start to move beyond any of the typical definitions of “deep structures,” “deep features,” or “deep patterns”: for Integral Post-Metaphysics, a “deep pattern” is not an actually existing form or structure but simply a term that represents *the probability of finding a particular type of holon in a particular mode of spacetime*.

Thus, if we say that a person is “at the red wave,” and the red wave’s general features include egocentrism, preconventional morality, and strong power drives (among others), that does not mean that there is some sort of concretely existing structure, pattern, or adaptive intelligence called “the red structure” (or the red meme or the red module, etc.) such that this person is somehow operating within it and bound by it (or that is somehow “in” the person). All it means is that the person that we identify as operating at or from red is acting in a space where the probability of finding those types of responses is very high (i.e., responses that are egocentric, preconventional, power-laden, etc.). The fewer of those responses you find, the less the person is “at red”—the less they are operating in the space of probabilities of that particular Kosmic habit.

A deep pattern, then, is simply a probability wave. The deep features that are characteristic of that probability wave are discovered by doing a *reconstructive* investigation *after the fact* of its existence, and *not* something that we can deduce in a Platonic or Hegelian or Aurobindian fashion before the fact. In other words, to say that consciousness is “at the red wave” simply means that it is vibrating at a particular probability wave: from the outside, we say that it is flowing along a particular morphogenetic field that represents the probability of finding certain types of behaviors at that point in spacetime; from the inside, we say that the feeling-awareness of that holon arises within a horizon of individual and collective prehensions, such that the probability of feeling a certain type of feeling is very high at that particular wave.

Some probability waves are so tightly laid down as Kosmic habits that the probability of finding a particular type of holon in that space approaches 100%. This often happens in physical systems (where, as Whitehead pointed out, it was mistaken as pure determinism); but it happens often enough even at higher waves (e.g., the probability of finding certain types of holons at the red probability wave is very high indeed). But that should not obscure the fact that the stages/waves of development, in all quadrants up to the present, originally emerged in part as creative novelty and were then laid down as habits that accordingly represent, not rigid grids of

determinism, but organic habits indicating the likelihood or probability of finding a particular event in a particular spacetime.

(Even an electron, as viewed by quantum mechanics, is not a pre-existing thing but a “tendency to exist” whose *probability* of being found in a *particular spacetime* is given by the square of the Schroedinger wave function.)

Thus, to quickly summarize, the deep features of any holon (quark, atom, molecule, meme, etc.) are simply the types of events that are probable within the Kosmic habits already laid down by past creative emergence. These probability waves are not some sort of clunky concrete structures lying around out there, but are simply the general morphogenetic grooves that represent the probability of finding a particular event at a particular spacetime locale in the creatively unfolding AQAL matrix.

As for the actual features or concrete structures of those events, they are co-determined, not just by past Kosmic habits that set broad probability patterns, but by actually-existing factors in all four quadrants (experiential prehensions, behavioral patterns, social systems, and cultural contexts).⁹ That, again, is why we say that although some probability waves (morphogenetic grooves or deep patterns) are inherited from the past in a collective fashion, most of the surface features are not.¹⁰

But please notice: *even the deep patterns* of the *higher* waves of consciousness—that is, higher than green—are now in the process of being formed; not even those patterns are predetermined *a priori*. Of course, pioneering shamans, saints, and sages have pushed into these realms and left lingering traces of their morphic footprints, but these are yet so few and far between as to be gossamer tracings on the spiritual wind. Higher states of consciousness, higher waves of consciousness, higher reaches of human possibilities—there are indeed virtually unlimited higher potentials, but they are just that: unformed *potentials*, potentials that have not yet crystallized and settled into widely available Kosmic habits....

As we just saw, the leading edge of creative novelty is, in today's world, somewhere around yellow, which means that the deep features of the memes from beige to green have already been laid down as Kosmic habits—and the earlier the meme, the more set and determined it is. Thus, in today's world, the deep features of memes up to around green are relatively set and “predetermined,” not by timeless archetypes but by prehensive unifications and morphic resonances from past creative novelties now settled into habits. In other words, yesterday's *a posteriori* have become today's *a priori*. After the fact, we can trace their emergence with a reconstructive inquiry that shows that these patterns were laid down; before the fact we could not predict those patterns in any specific detail at all.

This is why, even if certain past forms are relatively given as habits, the leading edge is not. For example, what we now call the upper end of “the subtle”—highest of the subtle realm potentials—will likely, thousands of years from now, have differentiated into a dozen or more actualized levels, with no discernable limit or end in sight: the leading edge of Spirit's creative unfolding is frothy, unformed, chaotic, creative, a wild sport and play of bringing forth creative novelty, a creative novelty that is eventually laid down as a Kosmic habit and that, *to all subsequent development*, then appears as an *a priori* given, even though it was originally laid down as an *a posteriori* to Spirit's mysterious and creative play.

Accordingly, even the deep features of the potentials higher than green are not carried as pre-given levels already formed, but as morphogenetic potentials that, as they begin to crystallize, will be molded by factors in all four quadrants—and IF those deep patterns begin to crystallize in more and more holons around the world, they will eventually settle into deep habitual patterns that will be inherited by subsequent development. Those higher stages (stages higher than green) are, *as stages*, still in their infancy, available in *idiosyncratic* forms to highly evolved individuals, but awaiting their emergence on a larger scale in order to become settled Kosmic habits universally bequeathed to the future.

(How can we speak of higher levels being available in idiosyncratic forms to highly evolved individuals when they do not yet have collectively settled form? Please see “On the Nature of a Post-Metaphysical Spirituality: Response to Habermas and Weis,” posted on this site, as well as an important endnote.¹¹ We will be returning to this crucial topic throughout this presentation.)

Once these Kosmic habits are formed, at any point in evolutionary unfolding, they are actually the stable patterns that will then become the *sub-components* of all new and creative emergents. For example: atoms, which originally emerged in part as creative novelty, settled into habitual patterns that then become the ingredients or subcomponents of molecules. The forms of those molecules themselves first emerged in part as creative novelty, but then settled into patterns that became the ingredients or subcomponents of cells, and so forth. Once red emerges, it becomes a subcomponent of blue, which becomes a subcomponent of orange, and so on, as the Whiteheadian moment-to-moment holarchy unfolds. This “transcend-and-include” relationship, grounded in Whiteheadian prehension, is the basis, on the feeling-side, of the gentle tilt of the Kosmos towards greater and greater complexity and depth, a tilt that by any other name is Eros.

Selection Pressures in AQAL Space: Validity Claims in Tetra-Mesh

As each new holon emerges, it emerges into an *already-existing* worldspace—that is, it emerges in an AQAL space that already has various sorts of waves, streams, states, systems, and so on, each with its own inheritance. (Again, yesterday’s *a posteriori* have become today’s *a priori*.) Each newly-emergent holon therefore must prove itself capable of existing or surviving in that already-existing worldspace—it must mesh with the already-existing AQAL matrix. It is therefore subjected to various selection pressures (or validity claims) representing *the types of fit* to which it must adapt in order to survive. Of course, it will not only or merely mesh: it will also bring its own moment of creative novelty that goes beyond all meshing altogether; but if it does

not mesh to some degree, it will simply be wiped out by existing selection pressures and never get a chance to express or pass on its creativity.

Because each holon has at least four quadrants or four dimensions of being-in-the-world, and each of those dimensions must mesh with the already-existing worldspace, there are at least four types of selection pressures: each holon *must mesh to some degree* with its own I, we, it, and its. Thus, each holon must be able to register the external it-world accurately enough (**truth**); each holon must be able to register its internal I-world accurately enough (**truthfulness**); it must be able to fit with its communal or social system of its (**functional fit**); and it must be able to adequately negotiate its cultural milieu of we (**meaning**).

Those validity claims of tetra-mesh (it-truth, I-truthfulness, its-functional fit, we-meaning) are not clunky representational pictures but mutually-evoked enactive engagements; and those tetra-selection pressures apply to all holons, from atoms to cells to trees to worms to wolves to apes. Any holon that fails to adequately negotiate all of those selection pressures simply ceases to exist.

This quadratic formulation gives us purchase on the nature of the relationships between the subjective, objective, intersubjective, and interobjective dimensions of existence. Although, at any given time, we might emphasize the importance of any one of those dimensions, particularly the intersubjective (especially if it is being ignored by most theorists), the technically correct view is that *all four dimensions arise simultaneously and tetra-evolve*. No quadrant is ontologically prior or primary. Nor is any quadrant actually “in” or “within” another quadrant. Individual holons are not “in” social holons the way that subholons are *in* compound individuals (see “On Critics, Integral Institute, My Recent Writing, and Other Matters of Little Consequence,” posted on this site).

Thus, we often say that “intersubjectivity is the *ground* in which both subject and object arise”—and that expresses an important point, but it is still only part of the integral story (a part we emphasize because it is so often ignored). The full story is that the actual *ground* of arising is

not intersubjectivity but the **AQAL matrix altogether**. That is, the previous moment's AQAL matrix is the *a priori* ground upon which the present moment arises (a ground that, if all goes well, the present moment will embrace and eventually transcend into the next AQAL moment). Each quadrant therefore hands the future *a ground of inheritance* (i.e., there is a quadrant-to-quadrant Kosmic karma), and any holon must mesh with all four of those selection pressures or face erasure. It is not that the intersubjective field is there first, and then the subject and object pop out of it, but that every holon has four dimensions that arise simultaneously and with which it must mesh to a significant degree or the holon cannot survive in the already-existing worldspace.

Certainly this means that the intersubjective field influences the probability waves of the holon's form of emergence; but so do the interobjective fields, the previous subjective prehensions, and the previous objective morphic resonances. And they do so, not one after the other, but all together and at once. If the holon does not mesh in a fundamental fashion with its intersubjective background of previously given mutual prehensions, then it will not arise; but neither will it arise if it fails to fit with the inheritance in the other three quadrants. None of these alone are ontologically or chronologically prior: what is prior is the AQAL matrix en toto. The previous AQAL moment is this AQAL moment's inheritance.

What generally happened with the postmodern pluralists is that they—correctly sensing that the intersubjective ground had been left out of the equation by an Enlightenment epistemology that ontologically privileged the Upper-Right quadrant—inadvertently careened and crashed in the opposite direction: they *ontologically privileged* the Lower-Left quadrant of relationships, participatory pluralism, and intersubjectivity (which often degenerated into Lower-Right grammatology). But the common battlecry was: “Relationships are prior to the things that are related.”

Of course, relationship without anything to be related is nothing but an arid abstraction (which secretly elevates green value structures to ontological absolutes). This postmodernist conception reflects a pre-integral, pre-quadratic understanding of the Kosmos, where events are

taken to be existing occasions *that have to be related* by various types of ground/figure or context/content schemes, instead of seeing that they all arise simultaneously in AQAL space and tetra-evolve in mutual mesh. Neither things nor relationships are prior: both are simply different perspectives or dimensions of the AQAL matrix. As we will see, postmodern pluralism got caught in a particularly intense form of quadrant absolutism that took its important but partial insights and established them as a quadrant hegemony that marginalized other, equally important voices, a topic we will return to shortly.

Part III. **THE NATURE OF REVOLUTIONARY SOCIAL TRANSFORMATION**

Let's pause in the theoretical account and give some concrete historical examples of the emergence of new probability waves, using as a point of departure some of Karl Marx's enduring insights about sociocultural transformation.

We hear much today of the need for transformation, the need for new paradigms, and even the need for a "revolution" in society, and certainly in leadership and new modes of thinking. What we see less of is any in-depth analysis of what actually constitutes societal transformation, genuinely new paradigms, or authentic revolutions. So let us see if an AQAL analysis of these key terms—transformation, paradigm, revolution—can shed any light.

Base and Superstructure Must Tetra-Mesh

Start with the nature of some of the major and acknowledged societal transformations that we have seen in history—such as from foraging to agrarian, or magic to mythic, or feudal to industrial. What drives these major shifts or transformations from one mode to the next?

One of Marx's central points, and a point that still rings true, is that around a particular "base" or mode of techno-economic production (e.g., foraging), there grows a particular worldview or "superstructure" (e.g., a magical worldview). Now for Marx, of course, the base

(LR) determines the superstructure (LL), whereas for us they tetra-evolve (as a play of all four selection pressures). It is not that “the base” is more real or more fundamental, and “the superstructure” is an afterthought resting on and determined by the prior material base. Rather, they both arise together and mutually tetra-act as part of the AQAL matrix. (We will still refer to “base” and “superstructure,” but unless otherwise stated, we mean the AQAL version.)

One of the easiest ways to get a sense of the important ideas that Marx was advancing is to look at more recent research (such as Lenski’s) on the relation of techno-economic modes of production (foraging, horticultural, herding, maritime, agrarian, industrial, informational) to cultural practices such as slavery, bride price, warfare, patrilocality, matrilocality, gender of prevailing deities, and so on. With frightening uniformity, similar techno-economic modes have similar probabilities of those cultural practices (showing just how strongly the particular probability waves are tetra-meshed).

For example, over 90% of societies that have female-only deities are horticultural societies. 97% of herding societies, on the other hand, are strongly patriarchal. 37% of foraging tribes have bride price, but 86% of advanced horticultural do. 58% of known foraging tribes engaged in frequent or intermittent warfare, but an astonishing 100% of simple horticultural did so.

The existence of slavery is perhaps most telling. Around 10% of foraging tribes have slavery, but 83% of advanced horticultural do. The only societal type to completely outlaw slavery was patriarchal industrial societies, 0% of which sanction slavery.

In short, the type of techno-economic base of a society constrains its various probability waves in very strong ways. Thus, it appears that there is a crucially important (if partial) truth contained in Marx’s most famous statement about these facts, namely (to paraphrase): “It is not the consciousness of men that determines their reality but their economic-material realities that determine their consciousness.” That is, the Lower-Right quadrant (which includes the techno-economic base) clearly has a profound influence on the types of beliefs, feelings, ideas, and

worldviews of men and women. For us, of course, this is in every way an AQAL affair—we needn't buy into Marx's tendency to absolutize the LR quadrant. At the same time, it is very hard indeed to overestimate the impact of the LR quadrant on the various modes of consciousness and culture.

There is another way to state this important point: namely, *third-person materialities have a profound effect on first- and second-person realities*. That was Marx's essential and enduring insight, and it remains true to this day because it reflects an important aspect of the AQAL matrix.

To continue Marx's historical overview: around a particular techno-economic base grows a particular superstructure of cultural beliefs and worldviews. But sooner or later there occur *technological innovations* (which means, for example, that at some historical moment, some forager figured out how to plant seeds and harvest crops—thus moving from a foraging base to a horticultural base). Precisely because there are obvious survival advantages to planting and harvesting (advantages so obvious that virtually all foragers adopted them if necessary), the techno-economic base fairly quickly transformed from foraging to horticultural. Once this happened in more and more tribal holons, it eventually settled into a Kosmic habit in the LR available readily to subsequent holons.

But the fascinating point that Marx spotted was this: the technological innovation happens very fast (in the LR), simply because you can change the *materials* of production fairly quickly: put down your bow and arrow, pick up a hoe, dig a hole like this, put in the beans, watch. But the superstructure—the worldview, the cultural accoutrements of religion, meaning, beliefs, shared values, and so on (LL)—*moves much more slowly*, because this involves not just picking up a new piece of matter (in the Right-Hand world), but an interior subjective transformation of consciousness (in the Left Hand)—a notoriously slow and difficult process. Therefore, with almost any widespread technological innovation, the superstructure of values and beliefs *now lags behind the transformations in the techno-economic base*. In short, there is a

disjuncture between LL and LR (between old superstructure and new base, between old paradigm and new realities, between old culture and new social system, between old meaning and new functional fit, between old semantics and new syntax). And that spells disaster.

As we would put it, technological innovations, in order to be innovations that actually supplant their predecessors, are ones that are more evolved and carry more depth (i.e., in this case, planting that is attuned to the seasonal cycling of nature demands extensive foresight and temporal planning—demands, that is, a conop wave of cognition, whereas much of foraging-in-the-moment demands only preop). This *increased technological depth* (the product of increased cognitive depth) is evidenced in the fact that technological innovations show an irreversible evolutionary sequence. That is, if we look at the technological evolution from foraging to horticultural to agrarian to industrial to informational, that sequence is never run in the reverse. Barring social disintegration, no industrial society ever decided to go back to agrarian, which decided to go back to horticultural, which decided to go back to foraging. There is an Eros to the sequence: time's arrow, as Prigogine would say, is asymmetrically evolutionary.

In short, this increased technological depth (in the LR) from foraging to horticultural could now support an increased depth in the worldview (in the LL)—namely, a move from magic to mythic. But the foraging tribes that first started horticultural planting *still had a magical worldview* that was adapted to, or tetra-meshed with, the old foraging mode. Thus, there was a disjuncture, a friction, a contradiction, between base and superstructure (for us, between LR and LL). They had a techno-economic base capable of supporting a new and advanced mythic worldview, but they were stuck with an “old paradigm”—the old magical worldview adapted to a foraging base that no longer existed as the significant mode of production. (As Marx would put it, the relations of production were out of sync with the forces of production.)

Because the LL and LR no longer meshed, something had to give: some quadrant will get a painful deconstruction. There will have to be a profound *cultural revolution* in order to tetra-mesh with the techno-social revolution that just occurred.

It was Marx's genius to spot these internal tensions and contradictions between base and superstructure (LR and LL) as new techno-economic bases historically emerged, and he intuitively understood that if there is not tetra-mesh, all hell is about to break loose, as the **newly rising culture** (meshed with the *new base*) is attacked by the old culture (functionally fitted to the old base). This is usually translated as the idea that history is driven by class warfare, but the crucial point for Marx was that classes themselves are defined in relation to a particular mode of production—the warfare is between different techno-economic modes and the worldviews they support. As new technological modes emerge, more progressive and expansive worldviews become available, but societal revolutions are often required to put the quadrants back in sync (more about this in a moment). Time, history, depth, and Eros are on the side of the newly rising culture, but the transition from the old paradigm to the new paradigm is usually less than pleasant.

To put it bluntly, one of the main causes of culture wars is that there is a break in the AQAL matrix, a disjuncture between LL and LR that tears the communal fabric, often violently. And that happens because transformations in the LR or techno-economic base (which only involves changing matter) can be put into play much more quickly than changes in the LL, superstructure, culture, or reigning worldview (which demands a change, not just in material, but in consciousness). Thus, as is often said, technological developments run ahead of our wisdom in how to use them (among other things).

Now, of course, this is not a one-time or singular affair. What Marx failed to see is what virtually everybody else has failed to see in this regard: it is not that each society has a single monolithic technological mode and a single monolithic worldview, and that the two somehow have to match up. Rather, each society is a spectrum of AQAL actualities: there are individuals at every level of the spectrum of consciousness, at least up to the average level of that culture (with a few moving beyond). And there are pockets of every mode of techno-production up to the leading edge: even in industrial societies, there are red street gangs foraging for their existence, and the farmers of Kansas are still out there planting seeds. So there is no single base

and no single superstructure, such that an internal contradiction between them could propel the major transformations that have marked history. Marx's general idea—that of a mismatch between LL and LR causing internal communal contradictions and tensions—is still true, but the mismatch spans the spectrum of consciousness up to the highest average wave in that society, and in all four quadrants with their many waves and streams (all of which have to tetra-mesh in the AQAL configuration, or something has to give).

In the modern West, the major culture wars involve not just *traditional* versus *modern* versus *postmodern* values, but techno-economic modes of *farming*, *industrialization*, and *informational* sectors, with worldviews of *mythic*, *rational*, and *pluralistic* (respectively and correlatively). In the nonwestern world, the major conflicts are between tribal-foraging and mythic-agrarian at war with modern-industrial and postmodern-pluralistic modes.

Thus, the socio-cultural tensions (and legitimation crises) span the spectrum, with various cultures and sub-cultures in various mixtures of stable and unstable mesh. With regard to the LR social system and its techno-economic base, what generally happens is that a technological innovation begins in the mind of some creative individual (UL)—James Watt and the steam engine, for example. This novel idea is communicated to others through the inventor's verbal and cognitive behavior (UR), until a small group of individuals eventually understands the idea (LL). If the idea is compelling enough, it is eventually translated into concrete forms (e.g., the building of actual steam engines), which now become part of the socio-economic base (LR). Precisely because adopting the base requires only a change in material, and not a change in consciousness, then the technological revolution can speed through the social system extremely quickly—leaving the old cultural worldview completely out of sync with the new realities.

To change that cultural worldview requires, of course, a difficult subjective transformation of consciousness in order to tetra-mesh with the new social realities of increased depth. And the only way that generally happens is: a group of individuals who have precociously developed to the higher wave of culture and consciousness eventually—through means peaceful

or not—end up at the helm of a novel governance system whose characteristics are those of the new probability wave (in consciousness, culture, and technics)—that is, the same new wave that produced the new technics.

Thus, for example, concrete operational cognition, which produced horticultural technology, could also support a move from preconventional tribal governance to sociocentric, conventional, trans-tribal forms of governance that united various tribes into larger non-kinship-lineage political blocks, as well as a shift from magic worldview to mythic worldview. And in turn, the new horticultural technics itself, created by and embodying a greater cognitive depth, supported and actively inculcated a mythic worldview: hence the tetra-evolution. (Marx was right in that, for most people, the techno-economic base is a major determinant of their consciousness; but he overlooked where the base originally came from: namely, the consciousness of the inventor, which clearly determined the base. In other words, Marx overlooked the AQAL matrix and tended to absolutize the Lower-Right quadrant, an absolutism we needn't share in order to appreciate his important if partial truths.)

Likewise, formal operational cognition, which could produce a steam engine, could also support the move from conventional to postconventional modes of governance (e.g., from aristocracy to representative republican democracy)—as well as a shift from mythic to rational worldview—so that, once again, all of the quadrants, at the same level of depth, would tetra-inculcate the others.

Using the example of the shift from tribal-magic-foraging to village-mythic-horticultural, even though the new mythic culture is *governed* from the leading-edge of collective evolution, nonetheless there are still pockets and subcultures of archaic and magic values—the existence of which causes internal culture wars of great significance (the historical battles between magic and mythic are legendary; see *Up from Eden*). So it is not that there is simply a wrenching culture war between one epoch and another, but that within any given epoch, there are internal culture wars representing the pockets of Kosmic habits still available on their own.

Paradigms

Incidentally, this account of historical change via AQAL selection pressures is consonant with Kuhn's observations on scientific revolutions, which are simply a subset of the AQAL transformational matrix we are outlining. Briefly: certain factual discoveries in the Right-Hand world cannot be accounted for by any scientific worldview in the Left Hand, and thus a severe disjuncture occurs between base and superstructure, such that an often painful revolution in belief structures and worldviews is now required to keep pace with factual information. Thomas Kuhn, in *The Structure of Scientific Revolutions*, outlined hundreds of such paradigm shifts or revolutions in scientific practice.

The way Kuhn used the term "paradigm," of course, has been badly misunderstood by the public and by most critics and appropriators of the term, who incorrectly use it to mean some sort of theory or super theory. Fritjof Capra, Stan Grof, Duane Elgin, Richard Tarnas, Charlene Spretnak—the list is virtually endless—would say that a new holistic or ecological theory should replace the old atomistic, Newtonian-Cartesian worldview, and that would be a new paradigm. But that typically incorrect use has Kuhn exactly backward. "Paradigm," for Kuhn, does not mean the theory or the superstructure, but the base or social practice. Paradigm is an almost exact equivalent of techno-economic base, social practice, behavioral injunction, or exemplar.

That is, a paradigm is a set of social practices and behavioral exemplars—specific types of experiments, for example, that generate a specific set of data or factual occasions. A paradigm, exemplar, or injunction brings forth, enacts, and illumines a particular set of phenomena, data, experiences, or apprehensions. (This is why my own broad theory of good science has three major strands: injunction or paradigm, enacted data or apprehensions, and confirmation/rejection. The first strand was modeled to take account of Kuhn's important work, while setting it in a larger context of phenomenology, falsifiability, and other equally important if partial factors.)

Thus a paradigm, as Kuhn used it, might be a particular set of experiments that produce X-rays. These experiments, injunctions, or social practices (the Lower Right) becomes the models or exemplars of how good science in that field is to be done. Other scientists use and model those exemplary practices to produce (enact and bring forth) more data, phenomena, or factual occasions. And—almost exactly as in Marx (because they were both onto the AQAL nature of this thing)—around this base or paradigm (LR) grow various superstructures, theories, or worldviews (LL) that are molded and determined by the base.

Thus, for example, around an entire set of physical experiments and paradigms had grown the entire edifice of Newtonian physics theory. That is, around the LR base of technological production grew LL theories and worldviews. Or again, around the LR base of data production and injunctive paradigms (which enact and bring forth various types of data, experiences, and phenomena) grew various LL theories, superstructures, and worldviews that attempted to explain the factually enacted data. The base or paradigm helps determine the consciousness of the scientists in this regard (just as the techno-economic base helps determine the consciousness of individual in any society—although, again, for us it is an AQAL affair that does not privilege any single quadrant, level, line, or state). As we saw with Marx, the essential point is that third-person materialities have a profound effect on first- and second-person realities.

This arrangement—which is Kuhn’s “normal science”—works well as long as the data generated by the paradigm continues to fit within the prevailing worldview. The Newtonian theory, for instance, worked very well for a very long time to explain all of the data that had been generated to date. With a few exceptions... such as black body radiation. That is, as more and more sophisticated experiments were invented, new data were generated that could not in any way be explained by the old theories. Thus, the base of technological production—the new paradigm—was generating experiences that could not be accounted for by the old theories. The new base needed a new worldview, and thus science was set for yet another “revolution,” or

dramatic change in worldview to account for the progressive increase in depth of the new paradigm demanding an increase in depth in a new theory.

And yes, this was scientific **progress**, as Kuhn made very clear (“I am a firm believer in scientific progress”), again showing his (correct, I believe) agreement with Marx in this essential regard (namely, there is a progressive Eros to the sequence, or else “revolutions” are not really revolutionary but are merely the old cyclical going nowhere).

Of course, virtually all of today’s “new paradigm” theorists—including all of the authors just mentioned, and literally hundreds of others—claimed that they had a new paradigm, when in fact they had no such thing. All they had was a new theory, not a new base, not a new set of injunctions to generate new data, not a new exemplar at all. The wildly popular version of “paradigm” had the cart before the horse, and simply presented a new theory with no new paradigms at all—that is, the “new paradigms” were entirely a boomeritis version of Kuhn’s important research (see *Boomeritis*, chap. 8).

Whenever a new (and real) paradigm enacts and brings forth new data, the old worldviews and theories are thrown into a crisis that can only be resolved by a progressive increase in depth to keep pace with the increase in depth in the new paradigm or technoproductive base. Whether this crisis (or **paradigm clash**—which means, clash between various technological forces of data production, or a clash between the types of experiments and exemplars that will be taken as producing the most significant data)—whether this crisis is resolved through overt *revolution* or quieter *reform* (see below), the results are the same: an increase in depth in both Lower Right and Lower Left (and therefore Upper Right and Upper Left for all those involved). In short, all four selection pressures in AQAL space swing into play and conspire to move Eros yet another notch forward in the Kosmic game. (This does not mean that all progress is sweetness and light; as we will see below, new progress and new pathologies often go hand in hand, but that fact in itself is not enough to deny the aspects of development that can and do represent genuine and progressive increases in depth.)

But let us immediately note that a paradigm clash is actually a small subset of a much larger and more important phenomena, so let us move forward to that larger discussion.

Legitimation Crisis

A paradigm clash is actually a good example of what is more generally known as a *legitimation crisis*.

First, a few technical terms. In my own approach, *legitimacy* refers to *adequacy in horizontal translation*, and *authenticity* refers to *adequacy in vertical transformation* (see, e.g., *A Sociable God*, CW4). Thus, **authenticity** is a measure of the degree of depth or height of a belief system (so that a turquoise worldview is more authentic than a blue worldview), and **legitimacy** is a measure of how well that worldview functions at its own level. A particular worldview can be very legitimate (or happily accepted by most members of the culture) but not very authentic (e.g., it might be a purple or red belief structure). On the other hand, some worldviews might be very authentic (representing, say, turquoise or vision-logic cognitions) and yet not very legitimate (or not accepted by the ruling or ruled classes).

A **legitimation crisis**, in the broadest sense, is a breakdown in the adequacy of a particular mode of translating and making sense of the world—that is, a breakdown in the adequacy of a particular worldview and its capacity to command allegiance. This can occur in any culture or subculture (including the scientific, as we just saw), but it has particular relevance in the **political arena**. Thus, a governing body (chieftain, ruler, monarch, plutocracy, aristocracy, democracy, etc.) is said to be *legitimate* if it is widely accepted by the governed (or if, alternatively, there are good legal/moral reasons for supporting it). *Legitimation* is the process by which members of a society believe (and thus follow) the governing bodies of that society. And *theories of legitimacy* attempt to explain (and/or justify) why a particular governing system has the acceptance and allegiance of its members (the explanatory reasons for this acceptance can

range across a spectrum from mere functionality at one end to more substantive reasons at the other).

A political legitimization crisis therefore means a sociocultural crisis in the prevailing modes of translation (at any given level) in reference to the governance systems of that culture (whether that culture be political, scientific, medical, educational, etc.). A legitimization crisis, in the broadest sense, is a crisis of faith in the prevailing worldview and in the governing bodies representing that worldview.¹²

At the turn of the century, Max Weber authored an extremely influential treatise (*Economy and Society*) in which he identified three major sources of political legitimacy (or reasons that people have followed a particular governance system or regime): customs or traditions; legal-rational procedures (e.g., voting); and individual charisma. Although those three *sources* of political legitimation do indeed exist, Weber's *analysis* of those sources of legitimacy was mostly functional—that is, those sources were not viewed as good or right, but simply as ones that have worked. This essentially functionalist view of legitimacy continues (implicitly or explicitly) to be embraced by most systems theorists, including most famously Niklas Luhmann.

Other theorists, disturbed that Weber's analysis was merely functional and not moral or normative (and thus could be used to confer legitimacy on, say, the Nazis, as long as they functionally worked—i.e., in functionalism, legitimacy is reduced to the state's capacity to generate belief in its legitimacy: the standard systems theory reduction of all Left-Hand values to LR functional fit), have added other views of legitimacy and its justification, particularly those focusing on *rights* (a view running through Hobbes, Locke, Kant, Rawls, Habermas). In this view, a governance system is legitimate (and thus deserves the allegiance of its members) if it guarantees certain human rights, usually secured through some form of *social contract* between the governed and the governing. We will return to this important view in a moment.

A fifth view of legitimacy might be added, namely, the *postmodern*, which abandons a search for universal grounds of justification and returns to local narrative traditions under the

banner of plurality and diversity (at which point it becomes pragmatically indistinguishable from the first form of legitimacy, that of customs/traditions, and thus is forced to justify every form of local barbarism: as with so much of postmodernism, it degenerates into regressive displays).

Now, all of those sources and views of legitimacy (rightly or wrongly) are present in today's world, including traditional customs, charismatic leadership, and implicit or explicit social contracts. A *legitimation crisis* occurs when the belief in the governing worldview and its representatives begins to break down, and this breakdown is in every way an AQAL affair—factors from all the quadrants, levels, lines, states, and types swing into play, summarized as “selection pressures in all four quadrants”—and if this turbulence is severe enough, then “societal revolutions” are often set into motion.

Societal Revolutions

During any widespread political legitimation crisis (just as we saw with any profound scientific crisis), when turbulence in the AQAL matrix reaches a critical threshold point, translation breaks down and transformation ensues—that is, horizontal modes of translation cease to be effective and vertical transformation to new modes altogether are required in order to meet the new selection pressures.

But “societal transformation” can be either progressive or regressive—that is, the vertical shift in levels can be either breakthrough or breakdown, a leap to higher levels of organizational complexity or a retreat to lower, less complex, more primitive states. We will see examples of both.

At the same time, many “societal revolutions” are really neither higher nor lower; they are simply different ways of translating at essentially the same level of culture, consciousness, and complexity. In fact, the original meaning of “revolution” was not progressive or transformational at all, but merely circular. That is, for virtually all political theorists throughout most of history, a social or political “revolution” was not any major breakthrough to a higher or

deeper level of anything, but merely a cyclical, circular, or revolving affair—the very word “revolution” comes from “revolving,” and it meant just that, a revolving “same ole same ole” pattern basically going nowhere. Thus, Plato and Aristotle analyzed the *cyclical* changes in governments from aristocracies to tyrannies to democracies and back again. Renaissance Italian scholars introduced the term *revoluzioni* to describe the *alternating* pattern of popular and aristocratic factions. Thomas Hobbes used the English word *revolution* to describe the *circular* transfer of power from king to parliament and back again. Nothing in any of those changes was thought to be progressive, permanent, or transformational.

And then, for the first time in history, “revolution” was used by a political theorist to mean a vertical shift or transformation to higher levels or modes of being and governance. The theorist? No surprise: Karl Marx (and Frederick Engels), in *The Communist Manifesto* (1848), which attempted to demonstrate that all of history is actually a series of revolutions (or higher transformations) tied to economic progress. Believers in transformation and new paradigms have been talking about their “revolutionary” new ideas ever since.

Still, as we were saying, Marx was on to a series of enduring insights. First and foremost, he was writing in the wake of the historical realization that history is significant: that is, the realization that evolution touches all areas of the manifest world. This crucial insight, first enacted by the orange probability wave—and intensified with yellow—had driven the profound changes in humanity’s understanding of itself that were expressed in the rise of the evolutionary interpretations of the Kosmos that began to appear in everything from biology (Darwin) to sociology (Spencer, Comte) to psychology (Baldwin) to philosophy (Schelling, Hegel): not only species, but ideas themselves evolve and have a history.

It was Marx’s peculiar genius to realize the need to link these evolutionary historical unfoldings to techno-economic structures (even if he went a bit overboard), and that is why it is always a good idea to at least touch bases with Marx whenever we talk of social “transformations” and “revolutions,” because otherwise the discussion becomes focused merely

on changes in ideas, consciousness, or culture, without understanding the absolute necessity of linking any real changes to the Lower-Right quadrant of social materialities as well. (As we saw, a real paradigm is a LR social practice, not a LL theory or worldview—as we earlier put it, third-person materialities have a profound effect on first- and second-person realities—and it was Marx who first spotted that crucially important point.)

For Marx, history was therefore marked (at least in part) by a series of revolutions linked to *progressive* (or vertically transformative) changes in techno-economic capacity. In each case, an older, more primitive, backward, and often oppressive economic class (with its outmoded worldview, philosophies, and belief structures), which had benefited from the old techno-economic base, was overturned by a new and rising class whose power stemmed from more advanced forces of techno-economic production. The important moment of truth in all this is that there is indeed a slow, overall Eros to the sequence—there is a slowly increasing developmental depth in cognition, culture, and techno-economic forces of production (rock to spear to plow to steam engine to computer). And if a particular societal crisis happens to occur on the cusp of one of those major increases in developmental depth, then the only thing that will resolve the tension and turbulence in the AQAL space is a vertical social transformation and cultural revolution (or, at the least, profound cultural reform). In short, the only real cure for a crisis in legitimacy is an increase in authenticity.

Marx's initial insights into that process are sound and enduring. But, much like Freud, although Marx's general ideas were often sound, he got virtually every detail wrong. And his notorious reductionism, also like Freud's, is something we can happily jettison. (Marx's statement that we earlier quoted—"It is not the consciousness of men that determines their reality but their economic-material realities that determine their consciousness"—becomes interesting only insofar as the meaning of the word "determines" approaches "causes," which in fact in never does. Rather, the social-economic realities of the LR are part of the crucial elements that tetradetermine the nature of any actual occasion.) But for just that (limited) reason, Marx's insights

are an important part of any AQAL analysis of social transformation and cultural revolution. Every revolution, every transformation, every shift in consciousness and culture that actually sticks has *of necessity* a Lower-Right component, and if that component is not present and prominent, you can dismiss any claims to have a new paradigm, a great transformation, or a new and revolutionary anything.

For the most part, of course, most political “revolutions” have not been riding the cusp of any truly vertical shift in any of the quadrants. Like mutations in nature, revolutions in politics are usually lethal, not beneficial, or are at most what their name originally meant, merely a circular or superficial change of the guard in the fundamentally same underlying regime (i.e., they are a surface structure shuffling in the same deep structure in AQAL space). Only a small handful of true revolutions are riding the cusp of Eros. The American revolution caught the beginning wave from blue to orange, and therefore represented a profound vertical transformation. But in the twentieth century there have been over a hundred “revolutions”—most of them merely a barbaric reshuffling of the cards.

As one historian has pointed out, “What is perhaps most striking about revolutions in this century is their sheer volume and variety. From the beginning to the end, in every area of the world, revolutions have shaped political life.” Mexico, Saudi Arabia, China, Turkey, Iran, Russia, Germany, Poland, Hungary, Czechoslovakia, Vietnam, Algeria, Nicaragua, Argentina, the Congo, Zimbabwe, Cuba, Columbia, Portugal, the Philippines, Cambodia—the list of twentieth-century revolutions is virtually endless. Few of these revolutions were hooked to any vertical current in any of the quadrants, but rather were “cyclical” or surface-structure changes in essentially the same AQAL space. Call these “horizontal revolutions,” if you will.

Historians, such as Jack Goldstone, have identified **four major factors** that account for most of these horizontal revolutions, and the more of these factors you find in the AQAL configuration of any given culture, the more likely there will be a (horizontal) political revolution:

1. A weakened government, usually due to economic reasons. This weakness leaves an opening for a revolutionary coup.

2. A change in the balance of power between the major elites in the culture. Typical elites include army officers, political leaders, high bureaucrats, cultural and religious leaders, labor and business leaders, and intellectuals. These elites usually compete for power following various implicitly understood “rules of the game” in that culture, but occasionally, due to various factors, there is an upset in elite power distribution and one elite seizes control or a new elite emerges—*“such elite leadership is a prerequisite for revolutions”* (Goldstone, *Revolution and Rebellion in the Early Modern World*). Contributing to elite turmoil in the AQAL matrix are international trade of goods and ideas, new investment, foreign aid, military support, new economic modes and opportunities.

3. Rapid population growth, which tends to increase poverty and resource depletion, undermines workers and peasants, and stresses governments.

4. Erratic international intervention. International consensus often halts revolutions, and lack of it encourages them.

Empirically it has been the case that the more of those factors present in any society, the greater the likelihood a revolution will occur. As we would put it, the more of those factors that are present in the AQAL configuration of any society, then the greater the probability that this AQAL space will also contain, as an actual occasion, a legitimation crisis that will reach a critical threshold, followed by a (horizontal) political-social revolution.

Further, scholars agree that such revolutions increase nationalism, mass mobilization, and state power, all of which often lead to war, which are common byproducts of revolution.

The only places in today’s world not touched by those four factors are Europe and North America, which means that the rest of the world is still open to—and will very likely continue to suffer—violent revolutionary altercations, and human suffering will rise proportionately.

In fact, apart from the world wars, the most human suffering in the twentieth century has come from revolutions and subsequent attempts to prop up revolutionary institutions: in the Soviet union, Eastern and Central Europe, China, Africa, Asia, Cambodia: tens of millions of people were executed, starved, tortured, or imprisoned to create revolutionary states, all of which promised sovereignty to the people when the people were nowhere near capable or even desirous of such. The difficult fact for “revolutionaries” of all varieties—political to academic to cultural—to realize is that an authentic revolution is in every way an AQAL affair, demanding not just a “new paradigm,” not just a new worldview, not just a new techno-economic base, not just a new social system, and not just a new set of ideas—but all of them and all together. Failing that, social revolutions are more often than not simply an occasion for more human carnage of one variety or another.

The Fifth Factor

Another item that is often missed in any understanding of social transformation is the “all level” part of the AQAL parameters. An increase in exterior or social development can only be sustained with a corresponding increase in interior development in consciousness and culture. Simply trying to put a new form of governance, political system, or social distribution network in place without a corresponding development in the levels of the interior dimensions of consciousness has historically guaranteed failure in societal transformation.

For example, the very notion of a *social contract* (which is the basis of most forms of sophisticated legitimation, including today’s representative democracies) is itself the product of a stage-5 moral development (orange or higher). And yet the orange probability wave emerged on a fairly widespread scale only three centuries ago. For this reason, it is no accident that democratic governance systems (of a social contract nature) are very recent developments in human evolution, emerging only after the Western Enlightenment on any widespread scale.

In fact, it was the historical emergence of the orange probability wave in the Left-Hand quadrants (i.e., the Gebserian move from mythic to mental), coupled with profound advances in techno-cognitive capacity represented by, for example, the steam engine over the windmill (in the Right-Hand quadrants), that inserted Eros into the sequence of historical-developmental unfoldings and thus profoundly increased the likelihood that of the revolutions occurring at that time, at least some of them would be of a significant, vertical, truly transformative nature.

That is, the existence of a **fifth factor**—namely, the significant increase in depth in any of the quadrants in a particular society's AQAL configuration—when added to the other four factors (outlined above), substantially increases the likelihood that a merely horizontal revolution will actually give way to a vertical revolution as well.

Put differently, when the AQAL configuration of a society possesses the standard risk factors for horizontal revolution, plus a fifth factor (namely, an increase in depth in any of the quadrants), then the AQAL selection pressures will include an element of Eros (or the morphogenetic pull to greater depth, complexity, consciousness, and care), and thus the AQAL selection pressures will agitate toward an *increase in authenticity* in *all* of the quadrants, or an increase in the developmental level of consciousness, culture, and complexity, because only by an increase in depth (or an increase in authenticity) in all of the quadrants can the tension, turbulence, and turmoil created by the breakdown in translation processes, signaled by a legitimation crisis, find some sort of resolution. In short, the effective increase in depth in any one quadrant creates a tension that can only be resolved by a corresponding increase in depth in the other quadrants as well.

The exact nature of this resolution, and the exact nature of the surface structure configurations that will satisfy the agitated selection pressures in AQAL space, cannot be determined or specified ahead of time or before the fact (due to the inherently creative or novel aspect of all vertical transformations and authentic emergents: if we could predict it, it would not be emergent); but, as with any complex vertical transformation, its pathways can be understood

after the fact by a reconstructive inquiry that tells us *what* happened, and an AQAL interpretation that can better help us understand *why* and *how* it happened.

Major vertical social transformations are relatively rare, certainly in any widespread and significant fashion. Historians alive to verticality (in consciousness, culture, and complexity—that is, in any of the quadrants) have found only a half dozen or so truly profound transformations (e.g., foraging-magic, horticultural-early-mythic, agrarian-late-mythic, industrial-rational, informational-pluralistic).¹³ Marx focused on the vertical shifts in techno-economic modes (or the Lower-Right quadrant), which is clearly one of the critically important dimensions in societal change simply because techno-economic materialities constantly touch all members of a society (and are, as hinted in an endnote, probably the singly strongest determinant of the average mode of consciousness in a culture).¹⁴ Gerhard Lenski's work on the stages of techno-economic development is probably the most sophisticated in this line of approach, and his techno-economic stages are now virtually uncontested by scholars: **foraging**, **horticultural**, **agrarian**, **industrial**, and **informational** (with side branches into **maritime** and **herding**, both roughly at the level of horticultural to agrarian). These stages are a standard part of my own version of the Lower-Right quadrant in the AQAL matrix.

It was **Jean Gebser** who gave the first compelling account of the correlative cultural transformations in the Lower-Left quadrant (although the breakthrough insights in this regard were first made by theorists from Schelling to Hegel to James Mark Baldwin). Although Gebser had no clear understanding of their internal relation to modes of production (i.e., Gebser possessed a pre-quadratic approach), his stages of cultural or worldview transformation are likewise uncontested by relevant scholars (although the interpretations of their significance sometimes differ): **archaic** (beige), **magic** (purple), **early mythic** (red), **late mythic** (blue), **mental-rational** (orange), **integral-aperspectival** (green and higher, but especially yellow). These general stages (conceived as probability waves) are one influential way to interpret the Lower-Left quadrant in the AQAL matrix.

When these cultural worldviews first arose, the level of cognitive complexity embodied in them could, when turned to the exterior world, produce **correlative** modes of techno-economic production (which in turn tended to inculcate the same level of depth in the users of the base). Thus, when the interobjective dimension of an actual occasion appears as a foraging mode, the intersubjective dimension appears as an archaic -magic worldview; when the interobjective dimension appears as horticultural, the intersubjective dimension tends toward early mythic; agrarian, late mythic; industrial, mental-rational; informational, integral-aperspectival

I said these correlations hold “when they first arose,” because the whole point about techno-economic modes is that, once they are produced by a particular level of consciousness, they can be used by virtually any level of consciousness (whether it could itself produce them or not). Thus, one of the horrors of the modern world is that ethnocentric tribes, which on their own could only produce a bow and arrow, can now get their hands on orange technology, including nuclear weapons, and thus couple a very low level of moral development with a very high level of techno-cognitive development. Most of the nightmares of the twentieth century—from Auschwitz to the Gulag—which have wrongly been blamed on modernity, are actually the product of premodern consciousness attaining modern weapons. It is this possibility of a jarring disconnect between LL and LR that drove Marx to some of his original insights (e.g., a new and more advanced techno-economic paradigm throws the old paradigm and the worldviews that it supported into a legitimation crisis that can only be finally resolved by a corresponding vertical transformation in cultural worldviews to match the increased depth in the new paradigm).

My point for the moment is simply that, once a material artifact (including a force of production) is created by a correlative level of consciousness and cognition, it can take on a life of its own. Although the artifact (and the force of production) itself, precisely because it *embodies* a particular level of cognition, will always tend to *evoke* a similar level of consciousness in the user of the artifact, this is not in any way a causal or deterministic affair (not, anyway, after its first emergence). Ethnocentric tribes can use gas chambers, even though they

haven't the cognitive capacity to produce them themselves: this is the horror of disjunctive development that can occur precisely because material artifacts and the consciousness that produced them can take on a life of their own, so that "levels and lines" becomes a nightmare of global proportions in today's world: high technical development, low moral development, a mixture of which leads straight to Wounded Knee, to Dachau, to Treblinka, to Sobibor, and to September 11.

Eros and Authenticity

We have seen that when any of four major sociocultural factors are present, the likelihood of a societal revolution increases. We have also seen that, if a fifth factor is added (namely, a vertical increase in depth in any of the quadrants of the AQAL configuration of a particular society), then there is an added selection pressure that agitates not just for a circular ("revolving") translational change in surface structures but a vertical (or authentically "revolutionary") transformational change in deep structures (following the morphogenetic gradient of increased complexity and consciousness, or Eros by any other name).

As it turns out, these (exceedingly rare) vertical societal transformations (there have only been a half-dozen or so truly profound ones) are not necessarily of the dramatic *revolutionary* variety; some are the quieter *reform* variety. Both occur and have historically occurred. For example, with regard to the vertical shift from blue (late mythic-agrarian) to orange (industrial-rational), and its corresponding shift from feudal-aristocracy-monarchy to implicit social contracts, revolutions that attempted to ride that evolutionary wave included the American Revolution (which succeeded fairly well due to strong factors in all four quadrants), the French Revolution (which aborted badly and reverted to blue Napoleonic), the Russian Revolution (which never had a chance due to a pre-industrial AQAL configuration), and the Chinese Revolution (which eventually ended up substituting Marxist blue for Confucian blue, with an industrial edge).

Where revolutions thus had a fairly poor track record, reform movements that attempted the same essential vertical transformation fared somewhat better. Prussia (in 1806-1812) and England (1828-1832) managed, via relatively quiet reform and not overt revolution, to implement many of the quadratic potentials of the orange probability wave, including a reduction in the privileges of aristocracy, extending citizenship, and progressive economic and political restructuring. These reforms were “revolutionary” in the sense of being profound, vertical, authentic transformations, but were not “revolutionary” in the overt sense of being accompanied by political insurrection, war, or physical altercations.

But whether the vertical transformation occurred via revolution or reform, the essential point is that in either case *a majority of the elite faction leading the transformation was at the orange probability wave*. As with any profound social transformation, it must be inaugurated and channeled by an elite, and the elite, in every case of genuine vertical transformation, has itself been riding the edge of the new and emerging probability wave (in this case, orange). If this is not the case, then the revolution/reform is merely of the old “circular” or “cyclical” variety, being merely a change in surface structures in the AQAL configuration of the society. But should a majority of the elite be representing the leading edge of the newly emerging probability wave, then the fifth factor is introduced into the increasingly chaotic translations of the AQAL landscape, and selection pressures therefore begin to agitate toward a vertical transformation to a new and higher spacetime niche, a new and higher probability wave in the cascading AQAL ocean. The crisis in legitimacy is finally resolved only by an increase in authenticity.

Moreover, in the case of successful modern revolutions/reforms, a significant fraction of the population at large was also at the orange probability wave (at least in the cognitive line). As history has demonstrated time and again, it does no good to introduce a new mode of governance (e.g., stemming from the orange probability wave) if the consciousness of the population itself is nowhere near that wave. Representative republican democracy is a governance system where sovereignty resigns in systems of holons at the orange probability wave; such a democracy has

never occurred at blue, red, or purple. Representative democracies and the reforms they carry are only around 300 years old in any sort of enduring fashion; they are dated with the Western Enlightenment and the emergence of the orange probability wave on a widespread scale.

Thus, throughout the twentieth century, every time that Western industrial democracies attempted to introduce orange social-contract democracy into red societies, the result was always the “election” of red military regimes. Communist insurrectionaries likewise attempted to introduce socialism into similarly red societies, and the result was once again a red military dictatorship. Exterior developments (in social structures and institutions) demand correlative interior developments (in consciousness and culture) in order to be sustained, and simply forcing “democratic” behavior from a population is worthless without correlative interior growth (a fact that can be adequately tracked only by using something akin to an AQAL analysis).

Summary: Eros and Revolution

That is simply another way of emphasizing the fact that most “revolutions,” “transformations,” or “new paradigms” are, like mutations, usually lethal (or at best inconsequential), not beneficial—which is why the original meaning of “revolution” was “a circular or cyclical going nowhere.” But part of the brilliance of Marx (and the Idealists themselves) was to spot that, in the long run, there is an Eros to the evolutionary sequence: a slow, fitful, but unmistakable increase in developmental depth and evolutionary unfolding, and therefore the possibility of new and more authentic modes of being, consciousness, culture, and politics continually emerge at the chaotic, frothy, leading edge of the probability configuration of the AQAL matrix in any society, and this new emergence (in any of the quadrants) throws the old forms of being into a destabilizing crisis of legitimacy, which, if profound enough, can only be resolved by an increase in authenticity.

We saw that in the original Marxist version, a legitimation crisis occurs when the superstructure (or relations of production) no longer mesh with the advances in the base (or forces

of production), and therefore the *meaning structures* of that culture are no longer supported in a believable way. In other words, the prevailing worldview—and the prevailing governing bodies—suffer a loss of legitimacy, a loss of believability. The intersubjective meaning (LL) no longer meshes with the interobjective social realities (LR), and thus a profound legitimation crisis shakes the entire culture.¹⁵ Meaning no longer matches fact; truth no longer matches truthfulness; semantics and syntax are out of whack; base and superstructure no longer support each other—and something has to give, as all four selection pressures swing into play in the violent turbulence of the disturbed AQAL matrix.

We also saw that in the **scientific world**, this means that the old theories (the old superstructures) which were adapted to, and generated by, the old social practices and paradigms (the old base), now no longer fit with recent and anomalous evidence. A new paradigm (i.e., a series of new scientific experiments and behavioral injunctions) have generated new data, new evidence, and new experiences that cannot be fitted into or explained by the old theories. The old theories therefore suffer a legitimation crisis: their meaning structures (LL) no longer functionally fit with new material evidence (LR). Old semantics and new syntax clash, and only a new series of theories and meaning structures can match the evidence generated by the new modes of scientific production (i.e., the new paradigms that generate, enact, bring forth, and produce new types of data or evidence). A **scientific revolution** (or at the least, profound **reformation**) therefore occurs which ushers in a new series of theories or meaning structures (LL) that are adapted to, and tetra-mesh with, the new modes of scientific data production (LR), so that the new scientific culture (LL) now matches the new social system (LR).

A similar type of legitimation crisis occurs in the academic world of the humanities, not just the sciences. To give only one example, over the last thirty years, there has been a particularly influential type of data production machine (or techno-economic injunction), but one that was itself malformed to a significant degree, namely, the behavioral injunction and set of social rules for deconstructing texts (or deconstructing systems of signifiers without an equally

widespread mode for putting something positive in their place: it was merely deconstruction without reconstruction). This malformed mode of data production and behavioral injunctions (or paradigms) supported a worldview of faux egalitarian postmodernism (i.e., a malformed mode of the green wave often known as “the mean green meme”). This mode of production or social behavior practice helped to determine the consciousness of the humanities professor and his or her unsuspecting students. However, as new forms of social practice and new theories based on them began to generate more integrated and more authentic modes of consciousness and culture, the worldview of extreme postmodernism has been thrown into a profound *legitimation crisis*, which itself can only be overcome by a revolution or reform to more authentic, more integral modes of consciousness, culture, and complexity in the academic landscape. This particular revolution—**an integral age at the leading edge**—is, of course, only now beginning to form (and is one of the main themes of this essay).

In **politics** at large, a legitimation crisis means that there is a new and rising culture that does not believe the old governing bodies. The new and rising culture possesses a degree of depth and complexity that is beyond the grasp of the old governing bodies, and therefore the entire structure of governance suffers a legitimation crisis for the new culture (at the hands of Eros). A political revolution—perhaps violent (revolution), perhaps not (reform)—will therefore have to occur in order for new governance systems to take into account the new increases in depth of cognition and technology. (As we have often put it, the only cure for a profound legitimation crisis—in any domain, scientific to academic to political—is an increase in authenticity.) If those revolutions/reforms are successful, the new (and more authentic) governance systems will possess a sturdy legitimacy for the new (and more authentic) culture. Failing that, there are only culture wars, as various cultures and subcultures vie for ruling legitimacy.

All sorts of pleasant and unpleasant solutions to internal culture wars have historically been devised. A fun one exercised by mythic believers was the mass murder of magic witches

(possibly hundreds of thousands in Europe's history). But many solutions were very positive: the United States Constitution, for example, stemming mostly from the rational probability wave (orange), demanded that, although you are allowed to have any private beliefs that you want—primitive archaic, egocentric magic, or ethnocentric mythic—nonetheless in the public space you *must behave* according to rational, worldcentric laws. The democratic Constitution was more authentic than the previous aristocracy, and thus time's arrow was on its side. Of course, as we said, in order to support such an arrangement, a significant percentage of the population itself (and not just the revolutionary elite) must be at a sufficiently evolved wave of consciousness (in this case, orange or higher), or the social contract will simply degenerate into red regimes and blue dictatorships of one variety or another....

The advantages that any greater technology and deeper cognitions have over their predecessors were many (in addition, of course, to the new forms of pathology introduced by the new modes: the dialectic of progress). We were looking at the example of horticultural-mythic over foraging-magic in its positive forms: one central advantage was that the mythic worldview had a relatively greater depth (which could include and embrace a larger number of individuals and therefore unite many tribes into a social communion much larger than their merely kinship lineage ties which dominated foraging modes). This relative increase in cognitive depth was shared by an increase in the technological depth of horticultural over foraging (evidenced in a higher degree of complexity and integration in the social system)—which is why foragers by the droves adopted horticultural modes wherever they were introduced.¹⁶ And once the a new worldview arose to match the new base (e.g., once mythic supplanted magic), then the higher mythic worldview and the deeper (more complex) horticultural mode were in mesh; they reflected different dimensions of the same probability wave, and thus could tetra-evolve more harmoniously.... (until industrial modes arose to displace horticultural-agrarian, and the old mythic-membership worldviews were challenged by the rising rational-egoic worldviews, and so

would go yet another round of world-wrenching cultural and social wars of transformation, whether by overt revolution or quieter reform....)

The advantage of any higher worldview is not in the “include” but the “transcend” side of the equation: there is an Eros to the sequence, such that the transcendental value of the new and higher world view moves into a new probability space (or a new niche) where it can flourish outside of old Kosmic habits (while initiating, in that new niche, its own forms of new Kosmic habits)—just as, for example, mammals found a new space outside of reptilian probability waves (although the mammalian brain, of course, transcended and included a reptilian brain stem, which transcended and included vegetative life functions, which transcended and included inorganic molecules, which transcended and included atoms, which h...). The new and deeper/higher worldview is therefore selected and carried forward in the new probability space, even though there are fewer holons there than in the previous space (whose Kosmic habits have now become subcomponents of the new holons).

Thus, foraging-magical modes of governance gave way to agrarian-mythic modes of governance, which gave way to rational-industrial, which is now on the cusp of pluralistic - informational. But even though the leading edge takes control of the major forms of governance systems, *all* of the previous waves remain as sub-pockets in the culture, even while the culture itself, on the whole, is subjected to the new governance system. Individuals and subcultures span the entire spectrum of the different waves of consciousness (up to the average, and a few beyond). And that is the major source of internal culture wars.

In this summary it is therefore important to repeat: What Marx failed to see is what virtually everybody else has failed to see in this regard: it is not that each society has a single monolithic technological mode and a single monolithic worldview, and that the two somehow have to match up. Rather, each society is a spectrum of AQAL actualities: there are individuals at every level of the spectrum of consciousness, at least up to the average level of that culture (with a few moving beyond). And there are pockets of every mode of techno-production up to

the leading edge: even in industrial societies, there are red street gangs foraging for their existence, and the farmers of Kansas are still out there planting seeds. So there is no single base and no single superstructure, such that an internal contradiction between them could propel the major transformations that have marked history. Marx's general idea—that of a mismatch between LL and LR causing internal communal contradictions and tensions—is still true, but the mismatch spans the spectrum of consciousness up to the highest average wave in that society, and in all four quadrants with their many waves and streams (all of which have to tetra-mesh in the AQAL configuration, or something has to give).

The Idea of Progress

Only such an AQAL interpretation can allow us to handle the **idea of progress** in a way that makes sense of actual historical realities. The problem with virtually all previous notions of progress—from the Enlightenment to Marx to present-day liberal democratic versions—is that they made the wholly unwarranted assumption that society has merely a single basic worldview and a single basic techno-economic mode, and therefore history must be a progressive, step by step increase in liberal values, clunking up the great ladder of linear progress. Thus, if the Enlightenment represented the emergence of industrial-rationality over feudal-mythology, then modernity must embody nothing but progress, pure and simple.

But, of course, a society whose governance system embodies industrial-rational modes (orange), still has pockets of archaic, magic, and mythic subcultures (purple, red, and blue). Moreover, the products of orange can now be used by pre-orange waves. Orange moral consciousness, for example, demands that all people be treated fairly, regardless of race, color, sex, or creed. Orange cognition is also powerful enough that it has to the potential to produce assembly line gas chambers, but orange moral consciousness would never use them. But tribal-red moral consciousness can easily seize orange products and will gladly use them—hence, Auschwitz.

In other words, “levels and lines” becomes an important ingredient in the AQAL analysis of any idea of “progress,” because the higher the level of development in any line in a society, the greater the possibility that those higher products can be seized by lower levels of development in other lines. Thus, the greater the genuine depth in any society—that is, the more there is genuine, real, authentic progress—the more types of pathology that can follow in its wake, due to levels and lines. This allows us to track the “good news, bad news” nature of all social transformations, and not fall into the only two widely accepted options, which either see only progress or deny all progress.

In short, no matter how “high” a society is in terms of developmental depth, every human being must start its development at square one, and thus the greater the depth, the more problems that can occur. Even in a society whose governance systems were at turquoise, individuals would still have begin at beige, then purple, then red, blue, orange, green, yellow, and turquoise—if they develop fully. But many individuals will remain at junior waves of development, which is certainly their right in all post-orange societies. But just that fact accounts for the peculiar distresses of advanced cultures: the higher the culture, the more stages of development involved, and since every stage has its own pathologies, then the higher the culture, the more ways you can be sick. Thus, good news, bad news.

Accordingly, we can indeed allow both the idea of progress in any line, and the fact that higher cultures showing authentic progress can nonetheless be subjected to barbarities that primal cultures literally could not even imagine.

This fact also leaves all societies open to internal culture wars, as pockets at different waves of consciousness vie for legitimation. As we have seen, in today’s industrialized West, there are three major subcultures still at war: the traditionalist blue wave (best adapted to agrarian-feudal modes), the modernist orange wave (best suited to industrial mass-production modes), and the postmodernist green wave (best suited to pluralistic informational modes). The governance systems of Western societies are in the slow and painful transition from industrial

orange to informational-green. And the major hazard in today's world is that the green wave is emerging in too many instances in its malformed mode, with its AQAL matrix significantly fractured by a flatland pluralism that erases depth from the Kosmos wherever it finds it. But that's another story, the story of boomeritis, yes?¹⁷

SUMMARY

We have covered a lot of ground in the first three parts of this essay. Here is a quick summary of the central points to date:

- Each holon has at least **four major dimensions of being-in-the-world**: subjective, objective, intersubjective, and interobjective.
- In the subjective dimension (UL), the moment-to-moment nature of flowing existence involves **prehension**—or this moment's feeling of the previous moment—which is a holarchical transcendence-and-inclusion of the previous moment. This is one example of the fact that each dimension of being-in-the-world **inherits** a type of influence (or Kosmic karma) from its predecessors.
- In the objective dimension (UR), the moment-to-moment nature of flowing existence involves, among other things, **morphic resonance** and **formative causation**, where the objective form of a holon resonates with similar forms across spacetime, influencing them to some degree (just as a vibrating string causes other similar strings to vibrate at the same frequency. The two strings vibrating together is called morphic resonance, the one string causing the other to vibrate is called formative causation). In the UR dimension, this inheritance appears most essentially as the past forms of an individual holon influencing its present form. This UR influence, as we will see, also appears to involve various types of subtle energies. Another equally important form of UR inheritance is

autopoiesis, whereby living holons self-organize and self-reproduce. (We will discuss autopoiesis at length in Excerpt B.)

- In the intersubjective dimension (LL), the moment-to-moment nature of flowing existence involves the inheritance of a cultural background of shared meanings and mutual prehensions. In essence, this is the basis of **cultural memory**.
- In the interobjective dimensions (LR), the moment-to-moment nature of flowing existence involves collective morphic resonance and collective formative causation that sets up various morphogenetic grooves that will strongly influence, and sometimes directly guide, the unfolding development of individual holons that arise in mesh with those grooves. This is simply a subset of the general phenomena of **systems memory**.
- Thus, all four dimensions of being-in-the-world are influenced to some degree by their predecessors.
- Put differently, each holon inherits, as a given or *a priori* ground, the AQAL matrix of the previous moment.
- These inheritances involve deep patterns of being-in-the-world that are not archetypal givens but **Kosmic habits**.
- Kosmic habits are not rigid concrete structures but **probability waves** of finding a particular type of holon in a particular spacetime locale in the creatively unfolding AQAL matrix.
- In order to survive, each holon must **tetra-mesh** with its AQAL inheritance or face extinction. This tetra-evolution involves **selection pressures** in all four dimensions of its being-in-the-world (truth, truthfulness, meaning, functional fit).
- If the AQAL matrix of this moment inherits the AQAL matrix of the previous moment, it also adds its own spark of **creative novelty** and **transcendence**. Each

actual occasion is “**transcend and include**,” giving rise to the Whiteheadian holarchical nature of each moment.

- Therefore, evolution is marked not just by the inheritance of past forms in tetra-mesh, but the emergence of new forms in transcendental leaps of creativity. As Jantsch summarized it, evolution is “**self-organization through self-transcendence.**”
- These emergent leaps therefore create new niches in the AQAL matrix marked by probability waves of **greater depth**, consciousness, and inclusive capacity.
- These niches take on specific forms as Kosmic habits when that space is **quadratically enacted** by a sufficiently large number of holons (which then pass on this inheritance to subsequent holons, who will transcend and include it).
- Higher potentials become concrete actualities—and higher states become actual stages—through this process of **creative enactment in tetra-mesh**. At no point are pre-given levels, structures, or stages required.
- Whenever a new niche is in the process of tetra-emergence, the old niche is thrown into a **legitimation crisis**, which can only be resolved by an increase in authenticity—or a **transformation** to the new niche of greater depth, consciousness, culture, and complexity.
- Authentic vertical transformations to greater levels of depth do not automatically spell progress, however, because higher developments in some lines can be accompanied by lower developments in other lines (a phenomena called **levels and lines**, whether in individuals or societies).
- For this reason, historical development is always a painful mixture of “**good news, bad news**,” as individuals and subcultures in the society span the entire

spectrum of consciousness in all of its available waves, in both their healthy and unhealthy forms.

- Thus, the greater the depth of any individual or culture, the more **potentials and pathologies** available to it.
- An **AQAL** or **integral analysis** of all of those factors very likely represents the best chance of increasing the good news and diminishing the bad news in any AQAL configuration (in an individual, family, society, species, planet, or Kosmos), because only an integral analysis takes into account the widest variety of evidence from the greatest number of sources, and is therefore the least exclusionary and least violent approach to self-and-other understanding.

Part IV. FACTS AND INTERPRETATIONS

Postmodern epistemologies (from Nietzsche to Heidegger to Gadamer to Foucault to Derrida to Lyotard) have done two profound things: introduced incredibly important truths into the game of human epistemology, and completely confused the field almost beyond repair. What is required, in any integral methodological pluralism, is a way to honor the enduring insights of postmodernism while avoiding the crippling confusions that have thus far inescapably followed.

The main argument between postmodern and modern/premodern epistemologies concerns whether the weight of truth is to be assigned to relativity or universality—or, which amounts to the same thing, whether interpretations or facts are most fundamental. The very form of that argument itself, however, demonstrates that it has taken place almost entirely within a first-tier paradigm (i.e., a first-tier data injunction machine)—the argument has been between blue fundamentals, orange universals, and green pluralisms, with one of the them taken to be true and the others false. A second-tier turquoise paradigm discloses, on the other hand, a more

fruitful way to move forward by highlighting the partial truths contained in all of those claims, and then resituating them within a more encompassing and compassionate framework expressing a self-reflexive turquoise moment of the AQAL matrix's self-understanding. In doing so, we will see that the argument is not between facts and interpretations, but instead involves understanding how both facts and interpretations are integral dimensions of this and every moment.

I personally have seen no other approach that comes anywhere close to integrating the truths of premodern, modern, and postmodern approaches. Rather, today's existing approaches tend to choose one or the other of those moments (premodern or modern or postmodern) and virulently condemn the others—a living example, alas, of a first-tier mentality still at war with its neighbors. Let us see if we can instead introduce a second-tier integral moment that honors each of them by resituating them in a larger framework, a framework that salvages their truth claims by limiting their reach. That is, by relieving each of them of their absolutisms, their enduring partial truths can be registered, included, and embraced in the ongoing unfolding of this moment's rush to realization.

Overview: Revolutionary Integral Pluralism

Let's start by turning from the nature of Kosmic karma in all four quadrants and look a little more closely at the methodologies that seem the most appropriate at disclosing/enacting the quadrants. The quadrants, recall, are simply variations on the perspectives that are embedded in all major natural languages—namely, **first person** (singular: I; plural: we); **second person** (singular: you; plural: you/we); and **third person** (singular: him, her, it; plural: they, them, its). We often summarize these as I, we, it, and its (or simply I, we, and it).

The point is that each of those perspectives embodies a particular dimension of **being-in-the-world**. Further, it appears that each of those dimensions of being-in-the-world (or each of those quadrants) can be approached by a different mode of inquiry. These different inquiries—from **phenomenology** to **hermeneutics** to **collaborative inquiry** to **systems theory**—all disclose

different aspects of the Kosmos, but each approach tends to take its corner of the Kosmos to be the Kosmos itself, thus ignoring or denying the important realities in the other quadrants (not to mention the fact that the belief in the existence of the other quadrants is usually ascribed to some sort of horrible pathology in the believer).

In other words, as important as all of these methodologies are, each of them tends to be blind to the realities in the other quadrants. It is this historical blindness, still operating as a widespread Kosmic habit, that we particularly want to address, because this blindness requires a sustained creative novelty of transcendence in order to escape its inherited prejudices. We call this prejudice *quadrant absolutism*, whether it appears in positivism, phenomenology, or postmodernism.

If we are ever to truly enter an integral age at the leading edge, it would help enormously if this widespread quadrant absolutism could be addressed and overcome. A significant move in that direction can be taken by simply acknowledging the important truths that each of the major forms of inquiry offer (instead of condemning all but one's own).

Briefly, here is what we will be suggesting: **empiricism** and **behaviorism** primarily engage the third-person singular modes of being-in-the-world (UR); **introspection** and **phenomenology** primarily engage the first-person singular modes of being-in-the-world (UL); **hermeneutics** and **collaborative inquiry** primarily engage the second-person and first-person plural modes of being-in-the-world (LL); and the **ecological sciences**, **structural-functionalism**, and **systems theory** primarily engage the third-person plural modes of being-in-the-world (LR). Of course, there are many more types of inquiries available, but these highlight some of the more historically significant that we will be briefly discussing.

Putting all of these modes of inquiry together, as an enactment and disclosure of turquoise cognition, results in what we are calling **integral methodological pluralism**, which embodies the more practical side of an Integral Post-Metaphysics.

If we are ever to enter an integral age at the leading edge, it will likely be under the banner of an integral methodological pluralism. Clare Graves called the transformation from first tier to second tier a “**momentous leap of meaning**,” because where all first-tier memes are convinced that their particular worldview is the only valid worldview, second-tier consciousness fully recognized and honors the partial truths in all of them. In other words, the leap from first tier to second tier is a leap from partialism and pluralism to integralism and holism.

Pragmatically, this means that all partial modes of human inquiry suddenly assume a new and profound significance as important pieces in the larger Kosmic puzzle, each of which has something incredibly important to tell us. Integral methodological pluralism thus becomes the banner of that momentous leap of meaning.

Of course, there are many other ways that second-tier consciousness will begin to reach a larger number of members of any given society, but here we are discussing the growing tip, or an integral age at the leading edge. As Goldstone pointed out, it has empirically been the case that *elite leadership is a prerequisite for revolutions*. If those revolutions (or even reforms) are to be of an authentic, vertical, transformative nature, then a fifth factor is necessary—namely, an increase in Eros or depth in any of the quadrants—and because the elite leading edge today is green (and has been for 20 years), then it follows that the fifth factor in this instance means a yellow paradigm, or an integral injunction and social practice, and the *actual practice* of integral methodological pluralism fits that bill organically.

In short, the more human beings who engage in an integral methodological pluralism—whose very nature is to acknowledge, honor, and include all authentic modes of human inquiry—then the greater the probability that the leading edge of the AQAL configuration in that culture will undergo a legitimation crisis followed by “a momentous leap of meaning” from first- to second-tier consciousness, with the possibility that the consciousness and culture of this growing tip will then spread out to larger segments of the society at large.

To Enact a Dimension of Being -in-the -World

Each of the important methodologies (from empiricism to collaborative inquiry to systems theory) are actually types of *practices* or *injunctions*—in all cases, they are not just what humans think, but what humans do—and those **practices** therefore **bring forth, enact, and illumine** a particular dimension of one’s own being—behavioral, intentional, cultural, or social. For example, the very form of participatory or collaborative inquiry—in which two or more subjects of awareness enter a circle of shared horizons and therefore bring forth a worldspace of overlapping intentionalities, meaning, and mutual understanding—the very form of this injunctive practice enables, enacts, and brings forth the intersubjective dimension of the individuals themselves. (This is why different forms of *praxis* yield different *theoria*.)

Under the enactive potential of various forms of practice—from phenomenology to empiricism to hermeneutics to ecological investigations to contemplative endeavors—various dimensions of a holon are energized: they “light up” in vibratory resonance, enacting a worldspace mutually co-created by the inquiring subject (but not merely created by the subject), and stand forth in the clearing created in part by the form of the inquiry.

Thus, when I take a first-person stance to this moment, I light up the subjective dimensions of being-in-the-world, many aspects of which are disclosed by introspective phenomenology. When I take a second-person stance to this moment, I light up the intersubjective dimensions of being-in-the-world, many aspects of which are disclosed by hermeneutics and collaborative inquiry. When I take up a third-person perspective to this moment, I light up the objective (and interobjective) dimensions of being-in-the-world. (We will discuss several examples of these in a moment.)

That is why none of these domains (or none of the occasions in any quadrant) are merely given or predetermined, just lying around out there waiting for all and sundry to see—but neither are these domains totally created by the inquiring subject or intersubjectivity (which is merely the pathology of postmodernism). As we have seen, some features of these domains (or reality in

general) are *given*—that is, they pre-exist the awareness of the inquiring subject. These givens or Kosmic *a priori* include the various Kosmic habits and the quadratic inheritances we discussed. As we put it, the *a priori* or given ground of this moment is the previous moment's AQAL matrix, which arrives on the scene as a given (or an inheritance from the previous moment) but never exists merely as a given, for it is always already taken up, transcended and included, transformed and reworked, by this moment's AQAL matrix, as self-organization through self-transcendence creatively unfolds moment to moment.

Reconstructive Inquiry

That is an essentially Whiteheadian stance (but only if expanded from an incomplete to a complete or quadratic formulation—see below); that is, the entire previous moment of AQAL space is handed to this moment's AQAL space as an *a priori*, even though that space itself, when it first emerged in the previous moment, emerged in part as creative freedom (not determined, not given), but a freedom that, when passed on to the succeeding moment, is passed on as determinism (which the succeeding moment must *include*, on pain of pathology, and then *go beyond* by adding its own creative freedom that is not determined by the previous moment).

These Kosmic givens thus include (among other items we will discuss) the entire world of *past actuals*—that is, all of the actual occasions that have already emerged (an emergence molded by the entire AQAL space in which it arose), a creative emergence that is then handed to succeeding moments as causal influence, morphic resonance, formative causation, prehensive unification, cultural context and social memory, morphogenetic grooves, deep patterns and waves of development, and so forth. These types of inheritances are givens: they are given by the past to the present, and they pre-exist any subject's awareness of them (although when they were first laid down, they were themselves *co-created by the subjectivity* that is part of the AQAL matrix at every moment. That is, these givens do *not* pre-exist subjectivity and its interpretations, since subjectivity is one of the four dimensions of all actual occasions; rather, these givens pre-exist the

subjectivity of this moment, not the subjectivity of the previous moment, which helped co-create them. But the point is that, once laid down, the previous moment's entire AQAL space is handed to this moment's AQAL space as a *given* which pre-exists any registration by this moment: it pre-exists the subjectivity, and the objectivity, and the intersubjectivity, and the interobjectivity of this moment—but not of the moment before, although the moment before received its own *a priori* givens, and so on.)

Hence, the only way that the subjects of this moment can *reflectively* illumine their history of past actuals is through a reconstructive inquiry (in any quadrant). A **reconstructive inquiry** means that a subject or subjects attempt to examine the actuals of their own existence by investigating these realities *after* they have already emerged. A reconstructive inquiry (in any quadrant) is therefore essentially an *a posteriori* investigation into previously laid-down realities. It is not an *a priori* investigation into predetermined structures (which is where we part ways with Plato, Hegel, Plotinus, Husserl, and Aurobindo—again, this is part of the move to a post-metaphysical stance), even though the past actuals being investigated now appear as *a prioris* because they are indeed Kosmic habits that are now pre-given (which is why metaphysics mistook them for ontologically pre-existing structures instead of organic Kosmic habits, which are handed not from the timeless to time, as metaphysics thought, but from the temporal past to the temporal present).

Reconstructive inquiry is not by any means the only type of inquiry. It is simply one version of the investigation of what was as it impacts what is. It does not cover inquiries that involve what should be (morals, ethics, normative inquiries); or aesthetic inquiry (art, artistic expression, self expression); or more openly interpretive endeavors (literary, expressive); or even exploratory inquiry into realities not yet emerged on a large scale but just now forming at the frothy creative edge, among many others. So when we emphasize that reconstructive inquiry is important, let's not imagine it is the only approach to reality, but is merely one of the many tools of integral methodological pluralism. It is important, however, because it can help us determine

which waves of consciousness (e.g., red, blue, orange) have been laid down as Kosmic habits, and which are as yet still in the formative stages—and thus allow us to move forward with a post-metaphysical approach to levels of consciousness, which can point to the existence of these waves of consciousness without resorting to metaphysical and ontological postulates but simply morphogenetic patterns and habits of evolution (without denying the existence of *higher* potentials available through self-transcendence, although these higher potentials have not yet taken on fixed form on a widespread scale, and thus their exploration remains idiosyncratic, though nonetheless very real).

In short, reconstructive inquiry is one type of inquiry that examines the nature of the present moment by looking into the past moments that led to its present form and content. These types of reconstructive inquiries in the various quadrants include, for example: reconstructive science or **evolutionary science** (in the LR), **anthropology** (LR), **genealogical hermeneutics** (LL), **developmental structuralism**(LR), **psychoanalytic inquiry** (UL), **Foucauldian archaeology** (LR) and **genealogy** (LL/LR), interpretive **cultural history** (LL), the evolution of **ecological systems** (LR), **stellar evolution** (LR), **biological speciation** (LR), **evolutionary psychology** (UR), bifurcation points in complex and **chaotic dynamic systems** (LR), and so on. Those reconstructive inquiries basic ally “unearth” or “discover” various aspects of the past actuals of the holons under investigation, and they can do so because those past actuals are givens which pre-exist this moment. They are not Platonic givens but Kosmic habits: nonetheless, they pre-exist this moment. They are Whiteheadians givens—fossilized actual occasions now prehended by their descendents, to which they are internal as prehensive unification and external in interpretive reflection (which is why they jump the Kantian divide of the thing-in-itself and present no fundamental epistemological dilemma; see below).¹⁸

But the central point is that, although these past actuals are givens that pre-exist this moment, their illumination is not. That is—just as with every other moment in spacetime (past, present, and future)—this moment’s coming-to-be is an AQAL affair: it is molded by factors in

all four quadrants (and their already-existing waves, streams, and states). This means that the unearthing of past actuals, which are fossil givens, inescapably occurs in conjunction with this moment's creative freedom and interpretation. Thus, there is no reflective way to get at past actuals except through an inquiry that includes interpretations of past actuals. The past actuals, as givens, are tucked seamlessly into the pre-reflective prehensive unifications of this moment; but they can only be unearthed with a reflective reconstructive inquiry that inescapably adds its own interpretative (subjective and intersubjective) dimensions. Thus, past actuals, as givens, are never disclosed in their pristine form; they are previous AQAL spaces that, if reflectively "unearthed," are done so only by this moment's AQAL space, a disclosure that colors the previous space with this moment's additions and interpretations (which is exactly what the previous AQAL space had done itself before passed to this moment as a given). Thus, even though the entire Kosmos of the previous moment is handed to us as a given and is felt from within in its totality in my present prehension (i.e., in my present, pre-reflective, prehensive unification), at no point do we reflectively disclose a merely pre-given world.

Does this mean that we can never get in touch with the thing-in-itself? That we can *never* get in touch with any pre-existing givens? No, on the contrary: the past *a priori* is now *internal* to the present moment as an actual constituent of this moment's feeling, and thus what you are feeling in this moment is, in part, the thing in-itself of the previous moment now tucked fully into your being. To say that you can never completely separate past givens from present elaborations is not to say that the thing-in-itself is epistemologically and ontologically dissociated and forever untouchable (this neo-Whiteheadian move thus escapes that particular Kantian nightmare).

Thus, although we can in some deep sense feel the thing-in-itself, we cannot reflectively cognize it; we can feel it, not think it. Even though the thing-in-itself of the previous moment is tucked fully into this moment's prehensive unification or felt-meaning, if we attempt, after the fact, to reflect on and reconstruct this past given, we then inescapably add this moment's interpretations to that moment's givens. Reflexivity itself always disqualifies itself from the

thing-in-itself. When the thing-in-itself creatively emerged, it was not given. When dug up, it is not given. Again, at no place do we ever find a merely given world.

This does *not* mean that therefore our reconstructive hermeneutics, reconstructive phenomenology, and reconstructive sciences are of no benefit at all—they are extraordinarily important as one aspect of a more transparent self-understanding. It is to say, however, that at no point do reconstructive inquiries disclose the thing-in-itself (although, if done correctly, they are *guided by the thing-in-itself*, they are guided by the *givens* or factual inheritances or Kosmic habits of the past as they impinge causally on the present via morphic resonance, formative causation, prehensive unification, cultural memory, and so on). When we enact a world, we are immersed in a meshwork of pre-existing givens with present interpretations.

Facts-and-Interpretations Are Intrinsic to the Kosmos

Thus, to say that the present moment is a seamless mesh of past givens and present interpretations is not to deny the existence of either one of them. Whitehead's great genius was to see that "facts-and-interpretations" are the same thing as "include-and-transcend." The previous moment is handed as fact, as given, as *a priori*, to the present moment, which adds its own creativity, interpretations, and transcendence—an AQAL matrix which is then handed, *as fact*, to the next moment's matrix. The interpretations of today become the facts of tomorrow as Kosmic inheritance.¹⁹

This is true all the way up, all the way down. As I have often pointed out, even electrons have to interpret their environment, and even quarks possess intersubjectivity. It is not just that atoms prehend their predecessors (a la Whitehead); it is that one AQAL moment comprehends its predecessors: the four quadrants go all the way down (we will return to this important point in a moment and discuss the ways that it goes considerably beyond, while happily including, Whitehead's notion of prehension).

Thus, when it comes to humans as well, there are indeed *a priori* givens, and there are our present interpretations of those givens. The great (and in some ways single) argument between modernity and postmodernity has always been: how much weight do we give to each of those moments? Modernity (and the Enlightenment) argued strenuously that there is only a pre-given world of facts. The basic Enlightenment paradigm was thus the *reflection paradigm* (or “the Mirror of Nature”)—namely, reality is in all important ways objectively given (i.e., the world of nature we see out there is a pre-given reality reflected or represented in the universal laws of nature)—and therefore correct epistemology consists in making an accurate map or representation of the pre-given territory. The givens alone are real: facts alone exist.

Postmodernity, as if in violent reaction to that silliness, swung to the other extreme and came up with its own howler: there are no facts, only interpretations. Postmodernity did not merely say, “There are givens but our disclosure of them is in many ways interpretive.” It said simply, “There are no givens anywhere, there are only interpretations and social constructions.” In other words, in place of the Whiteheadian process of rupture-with-continuity (or transcend-and-include), postmodernism put a *nothing-but-ruptures* view: nothing but breaks, incommensurate disjunctions, fragments, shards, as the broken Kosmos proceeds moment by moment to alienate and deny its past.

So modernity claimed “there are no interpretations, only facts”; and postmodernity claimed that there are “no facts, only interpretations.” I don’t have to tell you that in my opinion they both had an important if partial piece of the puzzle. What is required, of course, is an integral-aperspectival stance that honors and incorporates the important moments of both approaches to past actuals, while avoiding their respective quadrant absolutisms (Enlightenment modernism privileged the UR; postmodernism privileged the LL).²⁰ Both of them took their own preferred mode of being-in-the-world and claimed it was the only valid mode of being-in-the-world.

Interpretation in Both Senses

Up to this point, we have been focusing on inquiry into *past actuals* (or items that can reasonably be said to already exist in the four quadrants); we are not yet talking about inquiry into *future potentials*, which includes inquiry into the frothy edge of today's evolutionary unfolding; inquiry into events that are just emerging; inquiry into the limitless number of different forms of translation that arise moment to moment; inquiry into the transcendental components of any prehension; inquiry into realities that are co-created by the mode of the inquiry itself; inquiry into higher states that are already present as general realms—such as waking, dreaming, sleeping—but have not yet emerged at large and taken on specific forms as Kosmic habits and specific stages; and inquiry into any items that might be what we call *involutionary givens*, or realities that seem to be present from the very start of evolution (such as mathematics, certain physical laws, any truly archetypal forms, the morphogenetic gradient of Eros, and so on. Whether any or none of those exist will be discussed later).

Rather, at this point, we are talking about inquiry into those occasions that in some sense pre-exist our inquiry as actual occasions: that is, the previous moment's AQAL universe and any of its enduring Kosmic habits that repeat themselves in this moment. That is why we refer to all of these inquiries as *reconstructive inquiries*, whether reconstructive science (e.g., physics, evolutionary biology), reconstructive phenomenology and introspection (e.g., depth-psychology inquiry into past repressed feelings); reconstructive hermeneutics (an investigation of the history of meaning in a culture); reconstructive anthropology (inquiry into the historical and prehistorical material traces of human becoming), and so on.

And the question is, what part of our knowledge is based on those pre-existing facts or givens (handed to this moment via Kosmic inheritance), and what part on present interpretations of those facts (which transcend any past givens and cannot be found in the world of facts)?

In other words, the difficulty is how to determine just what part of our reconstructive inquiries are closer to the facts as best as we can construe them, and what parts are mostly our

interpretations or misinterpretations added to those facts. This is a difficult subject, and one that I believe can be best illuminated by an AQAL approach. (See **Sidebar A**: “Who Ate Captain Cook? Integral Historiography in a Postmodern Age,” posted on this site).

But let me make a few observations on this delicate issue based on our discussion of Kosmic karma. The general idea is actually simple, at least in theory: the more that past actuals are repeated, the more they become fixed and ingrained Kosmic habits—and therefore the more these past actuals continue to exist as givens, as facts, handed to the future; and the longer they exist, the more stubborn they become, resisting bad interpretations strenuously.

For example, when atoms first emerged, their emergence was in part determined by their own past givens (the already-existing quarks, electrons, protons, etc.—that is, the previously existing AQAL matrix at that time), but their emergence was also in part a stunning leap of creative novelty (i.e., that creative emergence was *a new interpretive moment* that could not be reduced to any of the pre-existing givens). As more and more electrons, protons, and neutrons followed those morphogenetic grooves and gathered together into atoms, the more the very forms of atoms themselves became ingrained as Kosmic habits. At some point, the creatively interpretive aspects of atomic formation began to wane, and the formal dimensions of atoms settled into habits handed to all succeeding moments.

Today there are over 100 of these atomic elements, stable subcomponents of all subsequent gross-realm holons. In other words, in today’s world, atoms have become such a deeply ingrained Kosmic habit that no creative emergent of today’s manifest realm can fail to include them. This means that atoms have become deep features of the Kosmos handed to all future occasions, which must transcend-and-include their forms (or fail to exist). And therefore, these *deep or formal* atomic features strenuously resist re-interpretation by today’s AQAL space (**in both senses**: the atoms themselves have ceased adding new interpretive emergents to their basic forms—as Whitehead would say, in this regard their creative novelty now approaches

zero—and we humans ourselves therefore have very limited wiggle room in our interpretations of the formal aspects of atoms).

In both senses is an important point, because it highlights two fundamental types of interpretation present in the Kosmos. The first and most fundamental is that *interpretation is an intrinsic aspect of the Left-Hand quadrants of all holons*, top to bottom. That is, any given moment's prehension contains an element of creative novelty and interpretive freedom, which cannot be reduced to, or explained by, the a priori givens and facts of the previous moment (and "interpretive freedom" means that how a holon feels its past is not fully contained in its past). As we said, even electrons have to interpret their environment—not to mention bacteria, worms, and wolves.

Thus, interpretation is *inherent* in the subjective and intersubjective dimensions of being-in-the-world (all the way up, all the way down). We often emphasize the importance of intersubjectivity in interpretation (and therefore, in shorthand, we often identify interpretation as quintessentially a LL occasion, and will continue to do so), but all interior dimensions have a moment of interpretive freedom (although never divorced from the other quadrants).

This moment's quadratic prehension is therefore an amalgam, an inseparable meshwork, of intrinsic facts and intrinsic interpretations. That is, this moment's quadratic prehension includes this moment's factual givens plus this moment's interpretive take on this moment's givens. And the sum total or amalgam of these facts-and-interpretations (i.e., this moment's AQAL matrix) is then handed, as given FACT, to the next moment's quadratic prehension, which then adds its own facts and interpretations, which altogether as amalgam are then handed, as FACT, to the next moment, which will then INTERPRET that or any such FACTS in ways not contained in those FACTS (which is why this moment transcends and includes its predecessors).

In short, the FACT(S) of the previous moment plus the facts-and-interpretations of this moment are then handed, as prehensive amalgam, to the next moment as the new FACT (i.e., as the new sum total of past actuals as givens), which is then open to new interpretations, which can

become new facts.... As we said, the interpretations of today become part of the facts of tomorrow as Kosmic inheritance.

The second type of interpretation intrinsic to the Kosmos follows from the first, namely, holonsprehend each other, and therefore must interpret each other's interpretations. The first type of interpretation is simply part of the creative freedom inherent in every holon (i.e., every holon must interpret the present moment to some degree); the second type is what happens when one holon specifically attempts to interpret another holon. This is where, shall we say, the interpretive game gets dicey.

This is a very long topic. Let me simply say that, precisely because interpretation of the first type is intrinsic to the Kosmos, so is interpretation of the second type. Any time one holon encounters another, it is a four-quadrant-to-four-quadrant affair: each holon encounters the other not just as a given fact or third-person object, but as a first- and second-person interpretative affair. The deer watching a hunter must interpret the hunter's actions, and not merely react to each of them like, say, a falling rock. Precisely because all holons (all the way up and down) contain a moment of sentience, they will always have to interpret their environments and therefore interpret each other's interpretations.

Needless to say, *adequate interpretation therefore demands same-depth translation*. If one holon attempts to interpret a holon of greater depth, something will definitely get lost in the translation. This, too, is a very long topic, so, for the moment, let us simply note that item and move on.

By the time we come to human holons, their linguistic capacities greatly extend and complicate interpretation (in both senses). Postmodernism, of course, became (understandably) obsessed with the outrageous mystery of interpretation of the Other: how on earth can we even begin such a task? Postmodernism generally answered, We can't—it is basically impossible to adequately interpret a cultural Other, so we are left with incommensurable cultures, incompatible linguistic practices, noncommunicating lifeworlds, and pluralistic shards in all directions. As it

turns out, postmodernism simply overstated its case, and the by the time that Derrida admitted (in *Positions*) that “the transcendental signifier does exist,” then the game of extreme postmodernism had already run its course, although it left academia in the midst of a colossal legitimation crisis it has yet to resolve.

We needn't follow postmodernism to its extreme in order to agree with its incredibly important if very partial truths, first and foremost of which is: interpretation is intrinsic to the Kosmos (which is the real meaning of “there is nothing outside of the text”). Postmodernism, of course, meant only the second type of interpretation that we are discussing, and then specifically in its human forms—that is, human beings are linguistic creatures and therefore must interpret everything that enters their world, since the “limits of my language are the limits of my world.” But that view, taken in and by itself, ultimately has no meaning (and is, in fact, self-contradictory) unless it is plugged directly into the first type of interpretation, namely, all holons, top to bottom, have an interpretive component internal to their own makeup or actual constitution. Once interpretation is adequately situated in an AQAL configuration, the partial truths of postmodernism take their rightful and important place in a more integral orientation.

So we have two types of interpretation intrinsic to the Kosmos, which we might call **primary interpretation** (inherent in the Left-Hand quadrants of all holons) and **cross-interpretation** (where one holon attempts to interpret another).

Let us now return to the point we were making, which is that the older any interpretative moment, the less wiggle room left in its makeup. As we were saying, when we humans today investigate atoms, for example, we bring our own interpretations to them; but our interpretations have relatively little impact on these deeply ingrained Kosmic habits, which is why bad cross-interpretations are soundly rebuffed by the actions of the atoms themselves (which is why falsifiability is often—but not always—one of the many yardsticks used by reconstructive sciences: **falsifiability** is the rebuff of a bad cross-interpretation by the Other of the interpretation).

Part of what our reconstructive inquiries unearth or disclose are some of the basic patterns, deep features, or ingrained Kosmic habits (as they appear in any of the quadrants). These deep patterns are those past actuals so habitually repeated that the probability waves become very tightly localized, hence our reconstructive inquiries can add only a few interpretative twists to these now-settled facts (and the older the habit, the less wiggle room left in its probability wave: the more stubborn the fact becomes—and the less open to interpretation—even though its original formation included *intrinsically* interpretative moments of subjectivity and intersubjectivity *in its own internal makeup*: at no point are facts ever merely factual). But the more settled the holon, the less wiggle room in its essential features.

This is why we say that only deep patterns or features are inherited by collectives: they are what all holons of that class had in common as they first emerged, and therefore those patterns set up a strong collective morphic field; whereas all surface features—or what only a few holons did—were not strong enough to be collectively passed forward (although they are carried forward by the individuals themselves in their own prehensions and individual morphic fields).

Of course, there is a type of spectrum or holarchy of collectives—individual, family, group, culture, nation, planetary, etc.²¹ The point is that there is individual karma, family karma, cultural karma, national karma, etc.; and those deep features, but not surface features, are inherited by the members of those families, groups, nations, etc. Notice that most of these collectively inherited patterns are not universal but are rather confined to one small group, subculture, or culture. Only a few deep features are universal or planetary, but the discovery of those universal patterns can only be unearthed by a reconstructive inquiry conducted by yellow or higher, since they involve universal patterns invisible to first-tier memes. We will return to these important points momentarily.

A Simple Analogy: The Grand Canyon

As we said, the older the past actual, the less room for today's interpretations, in both senses (the holon's and ours—that is, the less the interpretive moments internally added by the holon itself, and the less wiggle room in our cross-interpretations of their features). Conversely, the more recent the past actuals, the more room for interpretation (in both senses).

In psychological development, for example, this means that the earlier waves of development—particularly beige, purple, red, blue, and to some extent orange—are now fairly set as deep givens handed to the present as morphogenetic fields and interpretive habits, whereas the more recent waves are still in their formative periods.

Let me give a simple analogy here. A very old, deeply ingrained Kosmic habit—such as, say, the beige meme or structure—is like the Grand Canyon: it is a morphogenetic groove cut so deeply into the Kosmos that it is virtually impossible to escape. If you are traveling down the Grand Canyon, you can either float down the Colorado River at the bottom—a swift ride that takes a few hours—or you can walk all the way up to the top, then all the way down to the bottom, then all the way up to the top and all the way down again, and so on for miles: a huge expenditure of energy that would take you months of walking to cover the same ground. Thus, if a human holon wants to get down the river in the most efficient fashion, there is close to a 100% certainty that it will follow the river at the bottom, and not walk up and down the walls continuously. Thus, to say that a human holon is navigating the Colorado River in a developmentally efficient fashion, is to say that there is close to a 100% certainty that we will find that holon moving down the river at the bottom of the Grand Canyon in any given moment.

The beige meme is just like that: there is a virtually 100% certainty that human holons attempting to traverse its spacetime warp will follow the grooves—and thus display the characteristics—associated with the beige wave of the AQAL matrix (which is why all humans *universally* have a need for food, shelter, water: the beige meme). Moreover, these beige characteristics can only be determined (or reflectively discovered and outlined) by a reconstructive inquiry that investigates the Grand Canyon *after the fact* of its emergence and

habit-cutting grooves—i.e., as an a priori of past inheritance, not a predetermined archetypal structure.

The older the holon, the more like the Grand Canyon it becomes. At the deepest point, the Canyon is almost a mile down (some 5000 feet)—in human holons, that would be like beige.²² Purple is less deeply cut (say, 4000 feet down), red less deeply cut than that (say 2000 feet), and blue less deeply still (1000 feet). Orange is a mere 300 years old—the equivalent of perhaps only 300 feet cut into the Kosmos. And green—on the scene for a mere three decades in any widespread fashion—is a morphogenetic groove that has been cut a paltry 30 feet into the surface of the Kosmos. And poor second tier is rather like a few people dragging sticks along the surface of the ground, slowly beginning to carve an integral morphogenetic groove into the Kosmic landscape.

Thus, as we have been saying, the deep features that are inherited in any quadrant as Kosmic habits are simply probability waves for finding a type of occasion in a particular spacetime. The older the inherited feature, the more restricted the probability (so that very old morphic forms appear largely deterministic, even though originally laid down as creative freedom). All the other features of holons—their permutations, combinations, surface features, and actions—emerge as a novel play in this moment's AQAL space, transcending-and-including the past in a rush of creative fervor, with interpretations and facts sliding all over each other in a riot of indeterminacy. But the general features themselves slowly settle as Kosmic habits, and, as usual, the older the habit, the harder it is to break.

From Partial to Complete Dialogical Inheritance

We will be pursuing many of these crucial topics—such as the relation of facts and interpretations—in later sections, where we will give specific examples of what is meant in each case. The simple point for now is that each actual occasion—each existing holon—has at least

four dimensions of being-in-the-world, so that each moment exists as an AQAL display with a four-dimensional inheritance.²³

Each four-dimensional moment therefore *intrinsically* has objective/factual aspects or dimensions (UR and LR) and interpretive/consciousness aspects or dimensions (UL and LL). We are not now talking about how humans interpret other holons (or cross-interpretation); we are talking about holons themselves, all the way up, all the way down (primary interpretation). As this moment comes into being (at any level), it possesses a spark of creative transcendence, interpretive freedom, and nondetermined play; but as it passes into the next moment it becomes “gone” or “past,” a past actual no longer changing: it ceases to interpret itself and passes into the fossil record of the *a priori*. The entirety of this moment’s facts-and-interpretations is thus handed to the next moment as *a priori* given dimensions, which will then meet those givens with its own facts-and-interpretations.

To put this more accurately, by moving from Whitehead’s partial dialogical to a quadratic formulation: the AQAL matrix of this moment is taken up and included in the AQAL matrix of the next. This is not merely a matter of prehension and prehensive unification, as Whitehead believed. Whitehead was actually giving an Upper-Left quadrant analysis of moment-to-moment existence, and thus he largely neglected the inheritances contributed by the other quadrants. For example, while the subjective dimension of this moment is prehending the subjective dimension of the previous moment (and thus being molded to some degree by the prehensive causality of past feelings), the *objective dimension* of this moment is exerting a **formative causation** on the objective dimension of the next, and thus exerting not just a **feeling** causality but a **morphic** causality. That type of objective or exterior inheritance *is not directly prehended by the holon*, unless it takes up a third-person stance to its own existence, and thus it cannot be accounted for by Whiteheadian prehension or concretion (but can be accounted for by Sheldrakian morphic fields and other UR and LR inheritances, including *subtle energy resonances* [see **Excerpt D**]).

Thus, each moment is not just a subject that becomes object of the next subject; rather, each moment's objective forms also causally influence subsequent objective forms in a way that is not prehended or directly felt by the holon. That is, objective dimensions pass on their influence to subsequent objective dimensions, and subjective dimensions influence subsequent subjective dimensions—and likewise intersubjective and interobjective—and altogether they help mold the face of the present moment (*only some of which* enter the prehension or felt-awareness of the holon).

Likewise, as the exchange with David Ray Griffin disclosed, various *intersubjective fields* influence the form of the subject in ways that are *never prehended as object by the subject* (i.e., that enter and mold the subject *directly as the subject arises*, and not as prehended as object by the subject).²⁴

In short, various aspects of *all* the quadrants are inherited, not merely as a prehensive unification (a la Whitehead), and not merely as formative causation (a la Sheldrake), and not merely as cultural memory (a la Bourdieu), and not merely as social systems (a la von Bertalanffy), but via a total AQAL inheritance that includes the four quadrants all the way down (in a complete and not partial dialogical fashion).²⁵

What we need is a word to indicate this “four-quadrant prehension.” I sometimes call it “quadratic prehension,” but that stretches the Whiteheadian meaning beyond recognition, and the whole point of the quadratic formulation is that it categorically rejects the adequacy of the Whiteheadian version in this regard. So I will usually call this “quadratic prehension” by the terms **tetra-hension** or **com-prehension**, with the clear understanding that it extends beyond merely feeling-prehension, formal-causality, intersubjective-contexts, and interobjective-systems to indicate a four-quadrant inheritance all the way up and down. (And by “four-quadrant inheritance” or “tetra-hension” we mean everything going on in any of the quadrants, including their waves, streams, states, and types—all of which are just words indicating actual realities passed on from one moment to the next in the creatively unfolding AQAL matrix.)

The point is that all of the existing theories of inheritance—from prehension to causality to autopoiesis to systems memory—seem to tap into one or two of these dimensions of being-in-the-world, but none seem to cover all of the known bases. So from now on, when we speak of Kosmic karma, we mean an AQAL affair of tetra-hension, all the way up, all the way down.

In short, moment-to-moment inheritance is an AQAL affair: subjective dimensions resonate with, and influence, subjective dimensions via prehension; objective (i.e., exterior) dimensions resonate with, and influence, objective dimensions via formative causation; and so on with intersubjective and interobjective habits. Quadrant-to-similar-quadrant resonance is the form of Kosmic memory. And many of the Right-Hand forms of this inheritance never enter the direct prehension of the holon inheriting them, nor do most of the deep patterns in the Left-Hand quadrants themselves, all of which, as we will see, are discovered only by second- and third-person inquiries (and not first-person prehensions). There are likewise Right-Hand subtle energy fields, in addition to morphic fields (see below), all of which elude prehension per se.

The essential point for the present discussion is that the AQAL matrix of one moment is handed as a given, an *a priori*, to the AQAL matrix of the next. These givens are factual, *not* in the sense that they are all objects of prehension of the new subject (because some aspects of Kosmic inheritance are not directly felt by a holon). Rather, the AQAL matrix of the previous moment is now a factual given or an *a priori* in the sense that it has ceased its own creative novelty and has settled into the unchanging past, part of the fossil record of Kosmic evolution. Its creative freedom has ceased as the moment of transcendental creativity is taken over by the next moment, rendering this moment “dead,” if you will, or passed into Kosmic memory. It is a now a past actual, which is fixed or *a priori* in the sense that it no longer can interpret itself and thus change the form of its own existence, as it did in its own moment of present creativity, but it can be interpreted by its successors. As a past actual, its overall probability waves have collapsed into a specific and unalterable form, a creative reality now passed into a nonliving, nonchanging fossil, but a past actual that can only be reflectively known by present interpretations.

In short, the form of Kosmic memory is the AQAL matrix tetrahended moment-to-moment, and not merely prehensions, nor mindless formative causation, nor merely systems memory, nor solely cultural habitus, etc. Kosmic inheritance is moment-to-moment tetrahension, all the way up, all the way down.

Conclusion

The forgoing sections suggest a theoretical framework—an AQAL matrix, or an **Integral Operating System (IOS)**—that allows us to do several things at once.

First, we can account for *existing* stable structures (from bacteria to ecosystems to levels of consciousness) without resorting to pre-given archetypes, structures, or independently existing ontological levels—that is, we can begin to replace metaphysical speculation with reconstructive inquiry.

Second, even existing structures are not viewed as independently existing concrete entities but as **probability waves** for finding particular occasions in a certain vicinity of the AQAL matrix at any given time.

Third, the very nature of any actual occasion *intrinsically* contains at least three or four major dimensions (the four quadrants), each of which embodies an intrinsic mode of **being-in-the-world** (first, second, and third person modes).

Fourth, an Integral Operating System (or a theoretical framework that explicitly honors and includes all quadrants, all levels, all lines, all states, all types) is very likely the only framework that can help to inaugurate **an integral age at the leading edge**. Although any IOS is merely a third-person, abstract, theoretical, it-language construction, any authentic IOS nonetheless *explicitly* draws attention, not just to third-person “its,” but to the other important realities of first- and second-person modes, including personal feelings, experiences, phenomenology, hermeneutics, and collaborative inquiry. Therefore, any genuine IOS helps to continually remind individuals that they should be touching bases with all of those realities—with

all of the quadrants, all of the levels, all the lines, all the states, all the types—even if the simple IOS map itself can never replace the actual territory of any of those (nor was it meant to). Moreover, unlike most other maps (from the Web of Life to the postmodern paradigm), which believe themselves to be the actual territory and the one correct way to view it, an IOS is acutely aware that it is merely a map, and thus it can point to higher territories and realities not directly contained in the map itself. Finally, an especially helpful aspect of any authentic IOS is that it explicitly draws attention to the many methodologies that can themselves directly enact and illumine the various realities and potentials of the creatively unfolding Kosmos. It is to a summary of this integral methodological pluralism—harbinger of an integral age at the leading edge—that we can now turn.

Part V. INTEGRAL METHODOLOGICAL PLURALISM

Introduction

I believe we now have enough background information to take a quick tour of the some of the more commonly-used methodologies that light up, enact, and bring forth the various dimensions of holons. In each of these cases—from empiricism to phenomenology to hermeneutics to systems theory—we can ask, what is being disclosed or brought forth by the injunctions of the particular inquiry? That is, when we pursue those particular inquiries, what is it that we actually find? What does the inquiry show us? And why is this important?

Several items are being enacted and illumined in the clearing created by a particular inquiry, including **past actuals**, present **actual occasions**, and **future potentials**:

(1) We just discussed one of the most important—namely, some of these inquiries (such as physics, biology, developmental psychology, systems theory, ecology) can disclose many of the enduring features of *past actuals* that are still active in the present as givens, as facts that pre-

exist this moment's interpretations of them (even if inescapably colored by this moment's interpretations, and even though, when they were first laid down as facts, they themselves had an intrinsic moment of interpretive freedom).

(2) Some of these inquiries (such as hermeneutics, collaborative inquiry, meditation, artistic creativity) can also highlight the *actual occasions* (or facts-and-interpretations) that themselves emerge in this moment.

(3) And—just as important—some of them can disclose various *future potentials* that are just emerging with their own wild creative jolts. These emergents are not givens—certainly not yet—but are just coming to be in this moment of indeterminate playfulness. If any of these creative emergents survive the selection pressures in all quadrants and are subsequently repeated by more and more holons in that class, they might eventually settle into deep patterns and ingrained Kosmic habits handed to all members of that class in the future.

Those are some of the occasions open to our present forms of inquiry. In an important endnote, we will discuss some of the other items that might be discovered through human inquiry (items such as **involutionary givens**, or those truly archetypal patterns that might reasonably be supposed to exist prior to the start of evolution itself).²⁶ And remember, what we are exploring now are various forms of *inquiry*, or ways that we look for truth, or meaning, or information, or feelings, or insights, or collaborative sharing, and so on. In all forms of inquiry, in any quadrant, we are looking for something. So we are asking: in the various quadrants, what forms of looking or inquiring are there? And what do they bring forth? Needless to say, inquiry is not the only form of human feeling, knowing, being, or desiring—it is simply the form most open to reproducible methodology.

Let's look at the contours of some of these methodologies by giving a very quick, generic, simplistic account of some of the more commonly-used inquiries and a little bit of their recent history.

Upper-Right Inquiry

Perhaps the simplest of any sort of inquiry is **sensory empiricism** (which, given theoretical puffing, appears as **behaviorism** and, with more puffing, **positivism**—I will treat them generically as one). Sensory empiricism is also the most naively appealing, based on a series of facile assumptions: I see sensorimotor objects out there; those objects (and probably those objects alone) are real; therefore true knowing consists of following the behavior of those objects as carefully as I can: that is, true knowing consists of making an accurate map of a pre-given objective territory.

It's not that those assumptions are entirely wrong in every way. It's that, even if we grant their true aspects, they are a very small slice of the Kosmic pie. But the true aspects of that approach (which we are focusing on now) revolve around this:

When I attempt to take up the stance of an impartial and scientific viewing of objects, *I light up the third-person dimensions of being-in-the-world*. Those third-person dimensions are there, they are real, they are relatively objective (i.e., many of the aspects of present occasions are handed to the present as Whiteheadian past actuals factually inherited or prehended by this moment. This is why a diamond will cut a piece of glass, and it will do so in a premodern culture, a modern culture, and a postmodern culture: so much for cultural relativity). Those **facts** stand, but they do not stand alone, nor do they constitute a reality divorced from, or unmolded by, the other quadrants and dimensions of being-in-the-world. The disaster, needless to say, occurs when the investigation into this quadrant (the Upper Right)—or inquiry into the objective behavior of sensorimotor occasions—is taken to be the only type of investigation that yields true knowledge (an immature assumption that occurs only when I presume, contrary to the entire web of available evidence, that the only occasions that are real are sensorimotor occasions—which amounts to an absolutizing of the naive stance of unreflective awareness. “That we deny reflection is positivism”—Jürgen Habermas). This blindness is simply another instance of **quadrant absolutism**.

Still, a third-person inquiry into the behavior of the sensorimotor dimension of holons is an important tool in any integral kit. This empirical mode of inquiry lights up the third-person dimensions of being-in-the-world. It is therefore instrumental in helping to disclose some of the factual aspects of this moment (which means, the inherited forms of the quadratic past still active in this moment, AND the objective or Right-Hand correlates of the Left-Hand consciousness and interpretations arising in this moment). The existence of this important quadrant, of course, is denied by postmodernists, but only because, as we will see, they are involved in a quadrant absolutism of their own.

Important inquiries here include most of the natural sciences focusing on individual behaviors, such as physics, chemistry, molecular biology, biochemistry, evolutionary behaviorism/psychology, neurophysiology, neuroscience, and cognitive science.²⁷ However limited they are in covering the Kosmos, they form an important cornerstone of any truly integral methodological pluralism.

Upper-Left Inquiry

Upper-Left inquiry, or inquiry into first-person modes of being-in-the-world, is the most immediately available inquiry for everybody: I simply look into my own mind, my own awareness. Of course, things then get very complicated very quickly—what I call “my own mind” is partly a product of culture, social systems, a bit of undigested meat, you name it (which only means, once again, that no quadrant is divorced from the others). Still, “introspection” in any of its numerous forms is not entirely an illusory game; just as with empiricism and all the other quadrant inquiries, it can disclose many important occasions—past actuals, present occasions, and future potentials—not disclosed or enacted by any other mode.

The simple fact is, when I take up a stance of feeling into myself, *I light up the first-person dimensions of being-in-the-world*. Of course, what I find depends on a host of variables, including—most importantly—both the *wave* of consciousness and the *stream* of consciousness

that I am feeling into. But generic first-person inquiry is behind a multitude of important methodologies across the entire spectrum of consciousness—including various types of meditation and contemplation, introspective psychology, psychoanalytic endeavors, shamanic voyaging, phenomenology of awareness, dream analysis, and body work.

Most of the conflicts between approaches in this quadrant concern an argument as to which one of the many levels of awareness is the one and only true level—a case, we will see, not of quadrant absolutism but of **wave absolutism**. And we will also find a heated argument among theorists who believe that only one stream in this quadrant is really real—e.g., those who believe that the Piagetian cognitive stream, or the Gravesian values stream, or the vipassana meditation stream is the only really deep stream against which all others are but surface currents—an example of **stream absolutism**²⁸

Nonetheless, first-person phenomenology, in many of its forms—spiritual, mental, bodily—shorn of any wave or stream or state or type absolutism, is clearly an important resource in any integral methodological pluralism. We will investigate its many crucial contributions in a subsequent excerpt.

Lower-Right Inquiry

Of course, both Upper-Left and Upper-Right inquiries are, in one sense, naive. They both tend to assume that individuals stand alone. I look into my own mind (UL), and nothing I see there suggests that those contents are profoundly molded, sometimes even created, by my culture. And I look at objective things out there (UR), and they seem to be real objects existing by themselves—nothing in my senses suggests that they are intrinsic parts of larger wholes.

The first move beyond the stance of *naive individualism* generally occurs (and historically occurred) by understanding that the visible organism (UR) is intrinsically interconnected with the visible environment (LR) in systems of mutual interaction. In other words, a sophisticated tracking of the sensorimotor behavior of single objects soon discloses (to

second-tier cognition) that individual objects are following systemic patterns of behavior *that are not given by anything in the individual objects themselves*. Individual objects appear to belong to wider systems that to some degree govern the behavior of those objects that are components of the system. The evolution of an individual organism, for example, cannot be understood apart from the ecological system in which it is embedded. In some sense, individual organisms do not exist on their own; what actually exists is an organism-environment system, an ecological web—*itself embedded in even larger webs*—and it is an understanding of these systems and webs that constitutes significant knowledge. Thus, it is not the **behavior of objects** but the **behavior of systems** that becomes the focus of this mode of inquiry.

Historically, this perspective resulted in everything from **developmental structuralism** to **genealogical anthropology** to **evolutionary systems theory** to the **ecological sciences** and **Web-of-Life** theories to the wide variety of **dynamic systems theory** (from cybernetics to general systems theory to functionalism to chaos and complexity theories). All of those are still an essentially *third-person inquiry*, but now executed with an eye on the plural and the collective, not the singular and atomistic. In systems theory you find no first-person accounts of desire, feelings, impulses, visions, poetry, dreams, satori, and so on (not in their own nonreductionistic terms); and you find no authentic (or nonreductionistic) second-person accounts of mutual understanding, hermeneutics, collectively shared horizons; nor any account of the interior of states of consciousness, stages of consciousness, streams of consciousness, and so on. Those items are sometimes acknowledged, but all of them are reduced to their exteriors appearing in dynamic systems of interwoven its.²⁹ Despite attempts to introduce a “soft systems theory,” the vast majority of influential systems approaches—starting with von Bertalanffy and running through Parsons and Merton to Maturana, Varela, Luhmann, Prigogine, Goertzel, Warfield, Laszlo, Wolfram—are all primarily forms of third-person plural inquiry, which, relieved of any quadrant absolutisms, are crucial resources in any integral methodological pluralism.

In other words, when I engage in systems-theory inquiry, *I am lighting up the third-person plural dimensions of being-in-the-world*. These dimensions are real, they are there, and they are—exactly as systems theorists claim—relatively objective facts about systems in the world. They disclose the Lower-Right quadrant, or the objective dimensions of communal holons.

The more leading-edge schools of dynamic systems theory acknowledge that the Upper-Right organism does not merely *reflect* its pre-given Lower-Right environment but rather **enacts** it and **co-creates** it (the enactive paradigm). This is surely true; but it is still a third-person account of those realities, as we will see in detail in **Excerpt B**. This does not invalidate autopoietic theories, but merely situates them in the larger scheme of an integral methodological pluralism.

All of those interobjective approaches—there are literally dozens of others—are tapping into the fact that all holons have a Lower-Right quadrant, a holistic web of mutually interpenetrating patterns across space and time that can be described in a third-person plural perspective—and which, although far from the whole story, are a crucial aspect of a more integral view.

Lower-Left Inquiry

Historically, and coming right on the heels of the discovery that individual organisms exist only as inseparable aspects of webs of ecological interaction, it was discovered that those interobjective webs actually have interiors that cannot be reduced to, or explained by, the webs themselves. That is, social systems (third-person its) actually possess interiors of first- and second-person realities that escape detection by ecological and systems sciences. Worse, the objective and interobjective sciences themselves arise only as an inseparable aspect of extensive fields of cultural interpretations: intersubjectivity touches all other endeavors. Thus, modern systems theory gave way to postmodern contextualism—both of which are now being transcended and included in integral theories at the leading edge.

But to focus on the great postmodern discovery: every holon has an intersubjective dimension, every holon has a Lower-Left quadrant. Moreover, this intersubjective field is truly irreducible; it is not some sort of product of the interaction of priorly separate subjects that somehow come together, interact, and form a shared intersubjective horizon. Rather, intersubjectivity is there, from the start, as an intrinsic aspect of the tetra-arising of this and every moment.

Even evolutionary sciences support this conclusion, in that they all agree on (even if they cannot explain) the fact that *there are no first instances* in evolution. When the first instance of a new species arises—for example, the first mammal—*it never arises by itself*; what first shows up is an entire population of mammals. It makes sense if you think about it. For a new species to arise, there must occur dozens of major beneficial mutations. The odds against that happening are of course astronomical; but worse, the *same* dozen mutations must occur in another animal of the opposite sex; and then, on the entire world-wide planet, they must find each other, and then mate, and then their offspring have to survive and mate—and the odds of all of that happening are of course off the scale of the believable or even the possible. No, in some mysterious way, **entire populations simply show up**—and that means, *the insides and outsides of the singular and the plural arrive on the scene together*: the four quadrants simultaneously arise and mutually tetra-evolve, as we have been saying all along.

(How do entire populations simply show up? What “mechanism” can possibly account for that? The short answer is: Eros. See the endnote on involutory givens.³⁰ But whatever we decide on the “how” of it, the factual “what” of it is that the inside and the outside of the singular and the plural arrive on the scene simultaneously: the quadrants tetra-evolve.)

By the time the Lower-Left or intersubjective dimension flowers in self-reflexive humans, entire modes of inquiry have also evolved that help to enact, disclose, and illuminate this intrinsic dimension of being-in-the-world. Foremost among these modes of intersubjective inquiry is **hermeneutics**—the art and science of interpretation—in its many forms. Of course,

hermeneutics in its prereflexive mode exists “all the way down”—holons, even at the subatomic level, are engaged in interpreting their environments. Signal systems and exchanges of particles/energies/forces exist at even the most fundamental of levels. Unfortunately, because the creative novelty of the most fundamental holons approaches (but never reaches) zero, it mistakenly appears that interpretive freedom is completely absent at the ground levels, whereas, as Whitehead knew, it is merely at its nadir. The intersubjective dimension of evolution can be followed from its humble beginnings in the most fundamental holons (as systems of proto-prehension), through its more elaborate forms in plant and animal signal systems (chemical, biological, hormonal)—but all of them involve not just exchanges of *signifiers* in a system of *syntax* but the evoking and enacting of *signifiers* in a shared *semantic*: the four quadrants arrive on the scene simultaneously and tetra-evolve. (For syntax and semantics, see **Excerpt B**, section “Integral Semiotics.”)

In humans, this shared semantic appears as extensive networks of cultural backgrounds, prereflexive shared prehensions, mutual understanding, and overlapping horizons of intersubjectivity. These shared interpretive moments constitute an essential ingredient not only of mutual understanding between subjects, but of the arising of subjectivity itself: such is the essence of the great postmodern discovery. Agency is always agency-in-communion, in both its exterior or ecological forms, and its interior or cultural forms.

The explicit investigation of the many nuances of cultural intersubjectivity is the key ingredient in the methodologies of the Lower-Left quadrant. **Hermeneutics, collaborative inquiry, participatory pluralism, and action-inquiry** are a few of the many modes of this enactment and disclosure. The important point is that when I engage in hermeneutics and collaborative inquiry, *I am lighting up the second-person (and first-person plural) modes of being-in-the-world*. Those modes are real, they are there, and they constitute a crucial ingredient in any integral methodological pluralism.

All of those intersubjective approaches—there are literally dozens of others—are tapping into the fact that all holons have a Lower-Left quadrant, a holistic web of mutually interpenetrating prehensions across space and time that can be felt and described in a second-person (and first-person plural) perspective—and which, although far from the whole story, are a crucial aspect of a more integral view.

Integral Operating System (IOS)

Those are simply some of the major, time-tested, widely accepted quadrant inquiries. In a later excerpt, we will focus on wave, stream, state, and type inquiries (there are abundant existing examples of all of those).

But in each of these discussions of some of the more important modes of human inquiry, we are not discussing them merely as an academic item of historical interest. We are driving towards a practical, hands-on, integral methodological pluralism, or what we are also calling an **Integral Operating System (IOS)**, which specifically combines the very best of the time-tested modes of inquiry (from empiricism to phenomenology to hermeneutics to systems theory) in order to produce the most balanced and comprehensive approach to the Kosmos.

IOS, when mastered, **combines the strengths of all of the major types of human inquiry** in order to produce an approach to any occasion that “touches all the bases,” that refuses to leave some dimension untouched or ignored, that honors all of the important aspects of holons in all of their richness and fullness. IOS, as we said, *is itself merely a third-person system of signifiers* (i.e., it is nothing but a system of abstract ideas, symbols, and concepts, all of which are merely third-person symbols, not first-person or second-person realities).

However—to continue the computerese—if IOS is properly downloaded and installed, it essentially *activates the first-, second-, and third-person dimensions themselves*, simply because those are the active signifieds of the IOS signifiers. The result is that any brain hardware system operating on IOS automatically scans all phenomena—interior as well as exterior—for any

quadrants, waves, streams, or states that are not being included in awareness. IOS then acts to redress this imbalance and help move the system toward a more integral and inclusive stance. IOS acts as an autopoietic holism, if you will.

To repeat: IOS itself does not deliver first- or second-person realities, nor is it meant to; rather, it simply alerts the system to the fact that those realities exist, and urges the system to directly take them up. But that means that the person then has to actually engage in those other modes of inquiry, whether contemplative phenomenology, body work, intersubjective group processing, interobjective institutional organization, meditation, collaborative inquiry, and so on.

We will continue to discuss IOS in subsequent sections. But don't let the third-person signifiers mislead. What we are talking about are the contents of lived, felt, breathed awareness. We are talking about what aspects of the Kosmos we will allow ourselves to feel. Can we allow ourselves to feel deeply into all dimensions of the self-disclosing Kosmos, or we will recoil, contact, pull away from the Kosmos, and from our Self, and run instead into one partiality or another, one absolutism or another, one broken fragment or another? IOS, although a third-person operating system, simply acts as a reminder, a self-scanning alert, that there might be more feelings than are presently being allowed to surface, and points one in the direction of a more integral embrace.

NOTES

¹ Alexander and Colomy, “Neostructuralism today,” in G. Ritzer (ed.), *Frontiers of Social Theory*.

² Strictly speaking, a collective or communal holon (cultural or social) does not have a singular agency, will, or consciousness, and thus communal holons do not directlyprehend their ancestors, or previous communal holons, *in the same way* that individual holons do. It is subjectivity that prehends previous subjectivity, but all subjects arise with a context or background of intersubjectivity—and interobjectivity—that in part molds and influences the very nature of subjectivity itself. More accurately, each holon has a subjective dimension that directly prehends its past, but it also has an intersubjective dimension to which subjectivity is always already tetra-meshed and which therefore constrains to some degree the form of the feelings that subjectivity can have in any actual occurrence. This habitual constraint is the form of cultural memory. Likewise, the objective dimensions of any holon are tetra-meshed with interobjective realities that constrain the form of objective behavior, a constraint that appears as social systems memory.

Philosophers have been arguing for centuries over the similarities and differences between individual and social. Some deny any differences; others deny any similarities. Both are right: there are clearly important similarities as well as crucial differences between individual and social holons—see “On Critics, Integral Institute, My Recent Writing, and Other Matters of Little Consequence” [posted on this site].

(What is the easiest way to tell the difference between an individual holon and a social or communal holon? The former has a visible physical boundary. An ant is individual holon, an ant colony is a social holon; a human organism is an individual holon, while a family, a club, and a nation are human social holons. Confusing these two is a calamitous fallacy that, among other things, is the very definition of fascism, whether political fascism or ecofascism or values

fascism, because the collective is treated as an individual with a single will, value, and intentionality, which enslaves all real individuals to that system and its dominant monad; and this occurs in everything from mere theories, such as Maturana and Varela's autopoiesis, to actual politics, such as Louis XIV's famous *L'état c'est moi*, "I am the State," and therefore all people in the State must do as I, its dominant monad, command. Herbert Spencer was one of the first to emphasize this distinction, pointing out that social and individual are contrasted in terms of, respectively: asymmetrical vs. symmetrical, discrete vs. concrete, and sensitive in all its units vs. having a single sensitive center. Whitehead agreed, and called this sensitive center—possessed by an individual and not a social holon—the "regnant nexus" or "dominant monad," and it is that center of subjectivity that does all the prehending, which is why social holons do not prehend their past in the same way that individual holons do. These issues are taken up at length in **Excerpt B** [soon to be posted], particularly in relation to Maturana and Varela's confusion of social and individual, which was corrected in Niklas Luhmann's influential reformulation of social autopoiesis theory, also discussed in **Excerpt B**. See also note 3 below.)

As for collective or communal memory (and specifically cultural memory in this case): notice that the fact that the intersubjective background molds subjectivity does not strictly mean that intersubjective cultural patterns are the deep structures *within which* subjective patterns arise—although we sometimes use that loose language—but rather that any holon must mesh with pre-existing occasions in all four quadrants or face extinction: we call this "tetra-mesh." Thus, subjective holons that do not tetra-mesh with intersubjective dimensions will not be able to manifest.

More specifically, the general waves, streams, types (etc.) in all of the quadrants represent the Kosmic habits that have unfolded in those quadrants up to the leading-edge of today's evolutionary unfolding. The deep patterns of the already-laid-down holons *in each quadrant* help determine the surface features found in any of those holons in any of the quadrants.

The relation “deep to surface” therefore stands for the relation of the deep features of any holon in any quadrant to the contents or actions of that holon; it does not stand for the relation of one quadrant to another. Thus, when we say that “subject and object arise within an intersubjective space,” that is simply shorthand for the fact that all four quadrants arise together and must priorly mesh in order to manifest. We sometimes give a type of ontological priority to intersubjective and interobjective dimensions because the collective weight of those structures is enormous; moreover, the deep features of the inherited waves in the subjective and objective quadrants originally arose *only in interaction* with other subjects and objects—that is, arose only in intersubjective and interobjective tetra-meshing—agency is always agency-in-communion—but it is not that one of those quadrants existed *prior* to the others (such that one could actually arise “within” another one), but that they all arise simultaneously and tetra-evolve in mutual mesh. Thus, the relation “prior to actual” refers to the relation, not between collective quadrants and individual quadrants, but between the deep and surface features in all of the quadrants. A la Sheldrake, the deep features of the already-laid-down holons (including any waves, streams, types of holons) in the various quadrants are “ontologically prior” to any surface features of those holons, which simply means that those deep features are the *Kosmic habits* inherited from the past and which act as probability waves for actual occasions in those spaces. (The nature of this inheritance is outlined in the main text in more detail.)

Thus, various intersubjective or cultural patterns, inherited from the previous moment, are indeed ontologically prior to this moment’s subject, and therefore they place palpable constraints on the form of this moment’s subject. But this moment’s subject also inherits *its own* individual past as prehension, and thus BOTH the previous subjective and intersubjective patterns are ontologically prior to the present moment’s subject. In fact, all four quadrants hand the present an inherited AQAL matrix that is *ontologically prior* to the present moment’s arising (as the prior or inherited past), a past which must be embraced (as tetra-prehensive unification) if the

present moment is to harmoniously exist and not face pathology or extinction. (And, of course, each moment, in all four quadrants, nonetheless has a measure of *creativity* that ontologically *transcends* anything given to it by the past: this is how ‘significant’ trumps ‘fundamental’ in the transcend-and-include nature of each present moment. Thus, e.g., each subjectivity can to some degree rise above its own its own past and its own culture, which is another reason that any subjectivity is not actually “within” the intersubjective field).

Accordingly, when we say that “the intersubjective field is prior to subject and object,” that is simply a shorthand way of emphasizing the importance of all four quadrants: the Lower-Left or intersubjective quadrant is the one that is almost always ignored, misunderstood, or distorted, and therefore we often emphasize the fact that subject and object always arise in conjunction with an intersubjective meshwork. But again, to emphasize the importance of the Lower-Left quadrant is not to deny the *equal* importance of the other quadrants. As we will see, the extreme privileging of the Lower-Left quadrant is postmodernism’s major pathology (a participatory pluralism that callously disrespects realities in the other quadrants). On the other hand, the simultaneous tetra-arising and tetra-causality of all four quadrants and their necessary mutual evolution explains the influence of the past intersubjective dimension on the present subjectivity, but it also explains the influence of the past subjective, objective, and interobjective dimensions on present subjectivity as well. None of those dimensions should be either overlooked or absolutized. (All of these points are elaborated in the main text in more detail; see also note 3.)

³ Re: social and cultural prehensions and memory: as indicated in note 2, it is not that a collective holon has an individual agency that can directlyprehend the feelings of its past (since collective holons do not have individual agency), but rather that an individual holon becomes a *member* of the collective holon when its individual behavior follows the organizing rules of the collective and its individual feelings mesh via mutual understanding.

More technically, this means that an individual holon becomes a member of a social or communal holon when (1) its organismic behavior (UR) meshes with the rules of the interobjective social system (LR), and (2) its individual feelings and prehensions (UL) mesh with the intersubjective cultural background (LL). (In **Excerpt B**, we will see that cultural meaning [LL] involves *semantics* in the broadest sense, and social rules [LR] involve *syntax* in the broadest sense, so that an individual holon becomes a member of a communal holon when it meshes with its collective semantics and syntax, or its cultural and social patterns.)

The collective or communal holon is not something that exists as a superorganism over and beyond the individual organisms, but rather exists as the patterns that individual members follow in their membership (or the patterns of agency-in-communion). Shared behavioral patterns (and their artifacts) are the “stuff” of *social memory* (these behavioral patterns can be *latent* or *manifest*); and distributed values, shared horizons, and mutual prehensions are the stuff of *cultural memory* (these mutual prehensions can be *conscious*, *unconscious*, or *preconscious*).

Thus, when an individual holon shares the syntax (LR) and semantics (LL) of the group, it is a *member* of the group, and *membership* is found in the shared patterns and feelings, and not in some superorganism with its own agency above and beyond the individual. (For syntax and semantics, see **Excerpt B**.)

This is another way of saying that all four quadrants arise together in tetra-evolution. Treating the social holon as an individual organism—i.e., as a superorganism with a single agency or regnant nexus—is, as indicated in note 2, the central philosophy of fascism, whether it appears in Marxism, ecotheories, Gaia paradigms, Goddess mythology, or systems theory. This confusion of individual and social holons is found in theorists from Francisco Varela to David Bohm, but has been clearly corrected by such important theorists as Niklas Luhmann, Jürgen Habermas, and Erich Jantsch. We will return to this crucial topic in **Excerpt B**.

⁴ Sheldrake, *The Presence of the Past*.

⁵ That is, both the UR and LR have morphic forms and fields. The UL (subjective feelings) and the LL (mutual prehensions) do not have morphic fields *in themselves*, because “morphic field” is a third-person description of various realities, but UL and LL are first-person and second-person realities, known only in an I or thou/we language and by direct experience. But when UL and LL realities are looked at in objective, third-person terms, then you get the UR and LR, which indeed appear as various exterior **forms** (individual forms or morphic units [UR] and collective forms or social systems [LR]) and the related **fields** of those individual and collective forms (including individual [UR] and collective [LR] morphogenetic fields). Note that, in my view, these various **fields** include not only morphic or morphogenetic fields, as described by Sheldrake, but also various **energy fields** (gross energy, subtle energy, and causal energy, as we will see in **Excerpt D**, “Subtle Energy”—where I will further suggest that the various morphic fields *are actually subtle energy fields*; but whatever we decide about that issue, the point is that both morphic fields and energy fields are Right-Hand phenomena, appearing in both UR and LR, or the exterior forms and fields of both individual and socialholons).

With regard to Sheldrake, the point is that both individual and social holons (UR and LR) have morphic (or morphogenetic) fields. Each morphic unit has individual morphogenetic fields that relate its present individual state to its previous individual states. The *collective* dimensions of that formative causation or structural inheritance are the morphogenetic fields and systems found in the Lower Right, but both individual morphic fields and collective morphic fields influence the present unfolding of morphic units.

Again, it is not simply that the collective fields mold the individual, but that that individual’s past fields also mold the individual (which can mold the collective), which is to say—as always—that the quadrants tetra-evolve.

Thus, we do not privilege the interobjective morphogenetic field as being ontologically prior to the present object, because there are also *individual* objective morphogenetic fields that

are equally prior to the present object: the objective dimensions of any holon must mesh with both objective and interobjective inheritance—in fact, an AQAL inheritance. But precisely because it is the *interobjective* dimensions of this inheritance that are almost always overlooked—by objective science, by intersubjective postmodernism, by LL pluralism, and by UL phenomenology—we therefore give a strong emphasis to the incredibly powerful influence of interobjective fields, structures, and systems on the forms of individual development. As we will see in the main text, the great contributions of inquiries ranging from **developmental structuralism** to **ecological sciences** to **chaos and complexity theories** is that they focused on this incredibly important **interobjective dimension**.

Finally, as mentioned, the Upper-Right quadrant is the home not only of gross forms and energy, but of subtle forms and energies and causal forms and energies. See **Excerpt D**: “Subtle Energy.”

⁶ The fact that many of the deep features in all four quadrants are *collectively inherited* confuses some people, because the upper quadrants are supposed to be merely individual, not collective, so how could the upper quadrants have collective forms? Put differently, any time I find a collectively inherited form, isn't that a lower quadrant entity?

No, not at all. The upper quadrants simply represent that which exists in any individual holon (e.g., prehensive feelings in the UL and morphic forms, mass, and energy in the UR); it does not exclude the fact that the deep features of those individual occasions are often collectively inherited.

For example, take Stan Grof's Basic Perinatal Matrices. According to Grof, all human beings universally go through four stages of the birth process (whose details needn't concern us). Does this mean that the four BPMs belong to the lower or collective quadrants, since everybody has them? No. When an infant is going through the birth process, many of those events involve what is happening only to a specific individual—the infant has various sensations, perceptions,

feelings, and impulses as it goes through the organic stages of the birth process. Those processes do not primarily involve mutual understanding, shared values, second-person perceptions, and so on. Rather, the four BPMs are *exterior (or third-person) descriptions* of what is happening behaviorally to an individual infant (the UR) and its subjective feelings, sensations, perceptions, and so on (in the UL). The fact that the deep features or stages of those processes are collectively inherited does not mean a *collective experience* is therefore occurring (although it sometimes does, in which case those involve tapping into the other quadrants: the mother and neonate exchange intimate feelings, for example, which is a LL phenomenon). We all collectively inherit ten toes, but when I feel my toes, this does not mean that I am necessarily having a collective or shared experience with you (unless you are feeling your toes and for some bizarre reason we are talking about what it feels like to feel toes.)

In short, many of the deep features in all four quadrants are collectively inherited; when those forms are experienced individually, we have the upper quadrants; when shared, the lower quadrants. (For further discussion of this theme, see notes 9 and 10.)

⁷ In humans, we call the sum total of those habits, inherited as potentials ready to emerge as actuals, the **ground unconscious** (see *Atman Project*, CW2, and *Transformations of Consciousness*, CW4). The ground unconscious also includes any **involutionary givens** (see note 26 below). The ground unconscious can thus be accounted for without recourse to Platonic givens or fixed archetypes. See in particular the endnotes in *Integral Psychology* dealing with a post-metaphysical approach to these issues, endnotes gathered together in “On the Nature of a Post-Metaphysical Spirituality,” posted on this site.

Incidentally, one of those endnotes gathered together was edited to comply with contextual necessities; one critic went ballistic and claimed I was altering the original meaning of this note, which is preposterous if the original context is taken into account: ug, critics! (-)

The same critic suggested that, because I allowed the Scott Warren et al. essay to appear in “Wilber Watch”—and because that essay explicitly endorsed the perennial philosophy notion of levels of consciousness—then I actually did endorse the notion of a universal perennial philosophy. But the Warren essay endorses only gross, subtle, causal, and nondual “levels,” which are actually the four great states/realms, and I have always said that the only thing I supported about any “perennial philosophy” was the existence of 3 or 4 major states of consciousness (namely: gross, subtle, causal, and nondual, identified with waking, dreaming, sleeping, and ever-present nondual; and indeed all human beings universally possess those four major states, which is why that part along of any “perennial philosophy” is indeed perennial or universal for all human beings, but that is the extent)—see, for example, note 16 for chap. 4 in *A Theory of Everything*, where I repeat this point again. Therefore, the editors of Wilber Watch accepted the Warren piece as a very general summary of a spectrum of consciousness, without it necessarily endorsing any particular version of a Great Chain of Being with pregiven levels or structures, which I categorically deny and have denied for over twenty years, which is why I have rejected the perennial philosophy for twenty years.

But then, I have long ago given up having critics accurately represent my position before criticizing it; that is not really what criticism is about in the postmodern university, where criticism has come to be primarily the expression of what is true for the critic (not true for the position being criticized). Thus, in today’s criticism, the critic uses a particular book or essay to express what that book sets in motion in the critic; the critic’s response is thus primarily a cataloging of the critic’s egoic feelings, sentiments, and thoughts as the critic reads a particular piece—it has almost nothing to do with the piece itself or its actual contents, which are largely irrelevant to the display of the responses of the critic. It took me almost a decade to realize this and to cease trying to engage in factual or evidentiary discourse with critics, and respond instead to the feelings of the critic, where the only acceptable response to is thank them for sharing their

swell sentiments (-:-). If, on the other hand, you attempt to correct their misrepresentations, this is taken to mean that you are condemning their feelings, and thus you are taken to be a terribly insensitive fellow, following the “great chain of being nasty,” which is the only sin recognized by the mean green meme. Accordingly, a type of interpretive play, acknowledging and honoring the egoic feelings and desires of the critic, is the main arena in which criticism operates today, and this requires, shall we say, some getting used to....

⁸ See, e.g., Bausch, *The Emerging Consensus in Social Systems Theory*, and Intro to CW3. There is, however, a semantic confusion that needs to be addressed. Sometime a distinction is made between “organization” and “structure,” where “organization” means “pattern” and “structure” is used in the narrower sense as the material components of the organized pattern. Thus, Maturana and Varela say, for example, that a cell has “a closed organization and an open structure.” The organization or the dynamic pattern of the cell is *closed* because it is autopoietically maintained and resists all change; but the structure is *open* because the actual material components of the cell are changed constantly. That is quite true; but many theorists (and virtually all structuralists) use “structure” to mean the “organization” or the pattern itself, and not the material components. I am following that more standard usage. Thus, “structure” means the organized dynamic pattern that is autopoietically maintained and resists change, and “components” mean the material components.

⁹ As we saw in note 6, many of the probability waves of development are collectively inherited, but whether they refer to the upper or lower quadrants depends on the specific characteristics being considered. “The red meme,” for example, refers to the general set of values that are available to an individual within the probability space of a particular wave of consciousness (a wave that, in this case, we call “red” or “egocentric”). When an individual experiences a personal subjective value that falls within that probability space, that is an instance of the Upper Left (i.e., the red meme then refers to aspects of the subjective dimension of value as it vibrates in an

individual human holon in a particular AQAL matrix). The preponderance of evidence, gathered by a reconstructive inquiry, suggests that the general features of this probability wave are inherited by humans whenever they evolve beyond purple, which we take as indicating that this wave has become a fairly settled Kosmic habit prehended by virtually all holons moving through that now-laid-down space.

When these red prehensions are *mutually shared* with other holons at red; when there is an intimate, nonmediated resonance of red feelings with red feelings among two or more holons; when red values (i.e., values whose features have a very high likelihood of falling within the probability space called red) form the background of mutual understanding; when red value waves are a part of the fabric of the pre-reflexive feelings of the members of any collective holon; when the horizons of individual holons vibrating at red fuse in a mutual-enough prehension: then we speak generically of a “red worldview,” and here red obviously means the Lower Left: not just individual, but communal.

Finally, when a red value wave is lit up and vibrating in the UL or LL, there are (necessarily) corresponding vibrations in the UR and LR. In humans a red value felt subjectively (UL) goes hand in hand with an increased activity in the limbic system (the Upper Right). And when holons vibrating at red come together as a group, and act as if the group’s center of gravity is red (i.e., the general features of the group’s behavior fall within those that would be generated by the characteristic occasions of the red probability wave), then that group has a syntax or social system representing the collective exterior dimension (LR) of the red probability wave, and it has a set of mutual prehensions, semantics, and pre-reflexive backgrounds (LL) representing its intersubjective dimensions.

Thus, it is not that there is something called an individual red value, and that several holons then come together and exchange this thing called red value (although that can happen), but rather and most fundamentally, there is a general probability wave or Kosmic habit (which

represents the repetitive or karmic likelihood of finding a particular class of events in a particular spacetime locale)—a probability wave that in this instance we call “red”—and that probability wave can be looked at (and experienced) from at least four important perspectives: subjective, objective, intersubjective, and interobjective. These dimensions are not four different things but four different dimensions of any actual occasion (all the way up, all the way down).

(Generally, the term “red” is used only for the subjective and intersubjective dimensions of this probability space, which is fine; but the point is that there is simply a general probability space with at least four dimensions, and we can use the terms from any of those four dimensions to refer to the others—this is merely a matter of semantics. We could just as well use “limbic” to refer to the correlates in all four quadrants, or “tribal,” and so on. But generally, various terms are used specifically with reference to only one quadrant—terms like prehension, values, molecules, ecosystem—and those terms better reflect the realities of that quadrant or dimension, and therefore we will usually follow that custom; but the fact that these are merely four dimensions of a single actual occasion should always be kept in mind.)

So the red intersubjective background does not come into existence through an individual exchange of red values; nor does the subject arise in an intersubjective space—rather, they all arise simultaneously and tetra-evolve. Any subject that does not initially mesh with the *a priori* or pre-existing AQAL space will be selected out of existence (a fact that appears to a pre-quadratic understanding as a belief that relationships, or the intersubjective background, are ontologically prior to subjectivity, a fractured understanding replaced by the simultaneity of tetra-evolution). Any quadrant has to mesh with all other quadrants or it is selected out of existence.

The fact that the collective dimensions often have more weight (by sheer dint of numbers) should not be misinterpreted to mean that the collective dimensions are somehow ontologically prior. It is not that one quadrant is prior to another. Rather, what is prior to the AQAL space of this moment is simply the AQAL space of the preceding moment. There must

initially be a tetra-mesh of this moment's AQAL matrix with that of its predecessor, or prehensive unification fractures, formative causation fails, there is no moment of continuity between now and then, and accordingly the newly-emerging holon is erased in its emergence. (We say it must *initially* tetra-mesh because, of course, it will also add its moment of creative novelty in all four dimensions, and thus the AQAL matrix of this moment will transcend to some degree the matrix of the moment before: thus does the Kosmos grow.)

If intersubjectivity (LL) were ontologically prior to a subjectivity (UL), then cultural backgrounds could never be *fundamentally* changed by individual subjects (i.e., subjects, coming after the fact of the deeply prior ontological ground, could never get at the ground in order to change it), whereas individual subjects always have some sort of influence, sometimes profound, on the cultural background. Likewise, the cultural background itself must mesh with other dimensions: if, for example, the intersubjective background (LL) does not mesh with the techno-economic base (LR), then there is a profound interior conflict and dissonance between the cultural and social aspects of a holon's being-in-the-world (i.e., its semantics and its syntax clash). (For an extended discussion of this theme, see the section "The Nature of Revolutionary Social Transformation" in the main text.) The point, as usual, is that the quadrants arise simultaneously and tetra-evolve in mutual mesh.

¹⁰ "Deep" and "surface" are sliding terms, which is why one must rely on the context to help determine their meaning. For example, the "deep" features of a holon are defined as that which is common to that class of holons, and "surface" refers to only individual members of that class. But "deep" and "surface" are therefore relative, because they shift meaning according to the *level of the class* itself. There could be deep features common to members of a particular family, a particular subculture, a particular culture, a particular civilization block, all humans, all sentient beings, and so on. In that case, what is "deep" to one is "surface" to the next higher class: e.g., the *deep* features of a particular family (i.e., features shared by all family members) are *surface*

features of a particular culture (i.e., they are not shared by all culture members). Likewise, the deep features of a culture are surface features for a civilization block, and what is deep to that block is surface to all humans, etc. All of those uses are acceptable, as long as they are based on reputable evidence from sound reconstructive inquiries.

Further, it appears that all of those collectives (as well as the individual) generate morphic fields—which is Sheldrake’s essential point. Thus, these classes are not mere abstractions—another essential point. That is, these morphic fields (of a family, a group, a subculture, a culture, all humans) exert *formative causation* on the form of all holons in that class, which is part of their deep-feature inheritance (or Kosmic -karmic influence on subsequent holons). Sheldrake gives example after example of how different classes of holons exert morphic influence on other members in that class—whether a family, a group, a nation, all humans, all species, etc. A civilization block, for example, is united in the fact that all of its members speak a particular language, such as English, and that collective linguistic field has profound morphic effects on its members. Likewise with the influence that a family can exert on its members, a peer group on its, a nation, and so on. Each of those classes, to the extent they really exist, have deep and surface features; and the deep features are inherited by all members of that class as part of its Kosmic karma.

In the main text, when I generally say that “deep features are inherited, surface features are not,” I usually mean that from the class of the universal (unless otherwise specified). From that vantage point, the *universally* inherited deep features of, say, beige (such as the need for food, water, and shelter, which are universally inherited by *all* human beings with no exceptions) nevertheless do not determine what a particular culture or individual does in the specific ways of acquiring food, water, and shelter, so we say that those specific surface features are *not* universally inherited—they are surface features that appear differently from culture to culture, and those cultural differences need to be acknowledged and honored.

But a particular culture will invariably develop a set of practices (e.g., a particular language structure; various ethical norms; a particular techno-economic mode of production, styles of dress and accepted mores, etc.)—practices that, although surface to universal structures (i.e., those specific forms are *not* inherited by all humans), are nonetheless common for all members of that culture, and thus they are the *deep* features of that particular culture, inherited as background by all normal members of the culture. So those sociocultural backgrounds (intersubjective and interobjective) are actually *deep features for that society*, and as such are inherited by all normal members of that society (but not all humans everywhere). And likewise within those deep structures of a particular culture, there are family surface structures—but those might be common to all members of that family, and thus are “deep” structures collectively inherited by all members of that family (but not all members of that culture nor of all humans).

The point is that what is “surface” for one level can be “deep” at another (and, among other things, the deep features at any level exert morphic resonance and formative causation on holons at the same class-level). Moreover, in order to spot “deep” features, the corresponding cognitive apparatus is necessary. For example, yellow systems theory discloses universal patterns that cannot be discerned with blue or green cognition. (See **Excerpt C**, subsection “A Brief History of Conperceptions.”) This is why the green meme, for example, which does not have cognitive access to second-tier holarchical universals and their cross-cultural deep features, imagines that there are only surface features everywhere—that there are only relativistic and pluralistic features in existence. But add second-tier integral cognitions, and the deep features underlying cultural relativity come into focus—such as the deep patterns of the quadrants, with first-, second-, and third-person perspectives, and the spiral of development itself. This does not deny the relativity of many cultural productions—which are indeed *universally* “surface” and not universally “deep”—but it does complement rampant relativity with the many features, disclosed by yellow and turquoise, that are cross-cultural for humans, including many of the claims made

by the postmodernists themselves, such as the interpretive component of all human knowledge, which is indeed a universally deep component.

So the generic statement that “deep features are inherited, surface features are not” needs always to be qualified, because the concrete meaning depends upon which class-level is implied. The statement actually means “*inherited by all members of that class.*”

To summarize: Generally, in the main text, I am referring to cross-cultural or *universal* features, and thus when I say “deep features are inherited, surface features are not,” I mean that those general probability waves are inherited as Kosmic potentials/habits by all humans, but that’s as far as it goes, cross-culturally. Nothing that is relatively surface to those deep features is universally inherited. But that does not stop particular cultures, subcultures, and families from having their own “deep” features that are collectively inherited by their members (as determined by a reconstructive science). At their particular class-level—say, that of cultures—it is again true that “deep features are inherited, surface features are not”—which in this case means, all members of that culture inherit certain deep features, such as the culture’s intersubjective background (which is generally deep to all normal members), but not all members inherit particular features within that background (which are surface). However, some features that are surface for that culture might be common to all members of a particular family, in which case they are deep features for that family and are inherited by all members of that family (this is particularly true, as almost everybody intuitively understands, for pathological traits in a family, where the sins of the fathers and mothers are visited unto the seventh generation...). Here we have a deep family karmic pattern which is nonetheless surface to the culture itself (and certainly surface to all humans).

Anyway, please keep in mind the sliding nature of “deep” and “surface” in following the narrative about formative causation, morphic resonance, and Kosmic karma in general. As I said, in the text, usually I am speaking about cross-cultural and *universal* features (deep for all normal

humans), so everything else is treated as “surface,” which means, everything else is culturally relative (which is true). But within those cultures, there are many deep features inherited by that culture, by various subcultures, by families, and by individuals (with morphic resonance and formative causation presumably contributing to the mechanisms of that inheritance, along with factors in the other quadrants, such as prehensive unification, genetics, autopoiesis, habitus, etc.).

The important point, which will be suggested in the main text, is that none of those deep features at any level—including the universal—are predetermined in any sort of Platonic, Hegelian, Aurobindian, or pre-given archetypal fashion. They emerge in part as creative novelty during evolution, and only after they are laid down as Kosmic habits do they become potentials that can be inherited by subsequent holons. This is an essential aspect of the move from metaphysical to post-metaphysical.

¹¹ The general idea involves what is technically called “states and stages”: although higher *stages* have not yet crystallized collectively as Kosmic habits, higher *states*—including subtle, causal, and nondual states—are available to virtually anybody. The reason is that the four great natural states of consciousness, given to all human beings—waking, dreaming, sleeping, and ever-present nondual—give one type of access to the four great potentials that span the entire morphogenetic spectrum—gross, subtle, causal, and nondual. Anybody, at virtually any *stage* of development, can have an altered state or peak experience of these higher *states* (for the simple reason that everybody wakes, dreams, and sleeps). Those higher states are real, they exist, they are authentic, and they can disclose higher and deeper and wider realities spanning the entire spectrum and the great morphogenetic field (gross to subtle to causal), even though none of those higher *states* have settled into widely available, inherited, specific, concrete, morphogenetic *stages*. (As we have seen, the leading edge of *collective* stage-making is today around turquoise to coral.)

When a leading-edge pioneer first pushes into some of these higher potentials (whether they do so yesterday, today, or tomorrow), they can do so in one of two basic ways: as a

temporary peak experience (or altered state), or as a *permanent acquisition* (or enduring trait). If the former, they simply experience some of these higher potentials as a temporary spiritual experience or altered state, which can have a profound impact on them (and their followers, if they become teachers). However, these potentials do not become a permanently accessible trait or acquisition in consciousness.

In order for that to happen—in order for temporary states to become permanent traits—then the pioneer must undergo some sort of learning, growth, and permanent development in those higher potentials. As with all learning—from learning a language to learning karate to learning how to ride a bike—there will be some sort of stages involved, or some sort of sequential unfolding of these acquisitions. As with all new emergents, much of these sequential acquisitions first emerge as free and creative novelty at the chaotic and frothy leading edge of development and evolution. But if they are repeated by more holons, they begin slowly to settle into Kosmic habits that are then available to subsequent holons who engage the particular injunctions that first brought forth and tetra-enacted this particular path and its stages. Gautama Buddha, for example, is credited with creating a novel series of meditative injunctions (exemplars, paradigms, practices) that could take a serious practitioner from gross states (waking) to subtle states (savikalpa) to causal states (nirvikalpa, nirodh, nirvana). Those specific practices involved a series of meditative stages that he taught to his followers (like all stages, they were not rigid and discrete linear steps, but fluid, flowing, and overlapping waves of consciousness, but they generally unfolded from sila, or a strenuous foundation in moral precepts, to meditative practices of absorption and insight, leading to nirvikalpa, nirodh, and nirvana; like all stages, those were never found to unfold in the reverse order). As more and more practitioners followed those general stages (in an AQAL fashion—that is, in collectives or sanghas anchored in social institutions), the more those stages became ingrained as Kosmic habits that made that particular meditative path a dependable series of stages through the great morphogenetic field of higher

subtle and causal potentials. Today, the general stages of vipassana mediation are available as permanent acquisitions in the meditative developmental line, although, of course, their various surface features vary from culture to culture and often from individual to individual. But there is nothing about those stages that represent pre-given, fixed, absolute, independently existing ontological structures, planes, or levels of reality or consciousness. Rather, as more and more leading-edge pioneers pushed into the higher states on a more permanent basis, they increasingly give form to those realms, forms that, when adopted by more and more individuals, eventually settled into Kosmic habits as available *stages* of development that could be enacted by a particular series of paradigms and injunctions. (But even then, of course, only their deep form or morphic pattern is inherited; their surface forms and contents will vary from culture to culture and person to person, just as the surface forms of red, blue, orange, etc. do so now. And, it goes without saying, there are many other different paths available through the great spectrum of consciousness.)

Today, for example, Hameed Almaas is fashioning a new series of waves and stages through the great morphogenetic field of higher potentials; as more and more of his followers pursue the specific morphogenetic groove that he pioneered, the more its features become ingrained as a Kosmic habit through that particular developmental line in the AQAL matrix. A lineage path, in other words, is now being cut into the Kosmic grain, and, like all lineages, it will bear the marks of its founder, both positive and negative. This is unavoidable in any sort of higher, pioneering path-cutting, and thus one always hopes that the founder or founders of a particular path in a particular developmental stream create a sufficiently self-critical sangha such that any major deviant patterns can be internally spotted and self-corrected. (Humanity, needless to say, has a spotty track record in that regard....)

For a further discussion of the four great states (waking, dreaming, sleeping, nondual) and their corresponding potentials (gross, subtle, causal, nondual), see **Sidebar G**: “States and

Stages,” posted on this site. The point is that at any given time, higher states are collectively available even if higher stages are not (although higher stages can be forged uniquely by individuals or sanghas); but as more individuals push into higher states, the more they become available as collective stages (or Kosmic habits), stages that appear as *a priori* but are actually *a posteriori*—this is the essence of a post-metaphysical derivation of higher potentials without Platonic or Aurobindian givens.

¹² A legitimation crisis can happen, of course, regardless of the level of the worldview. Even highly authentic worldviews must seek and find legitimation. Authenticity is no guarantee of legitimacy, nor vice versa. See *A Sociable God*, CW3.

¹³ This is not to overlook the hundreds and thousands of micro-transformations or micro-increases in depth that can and often do happen in individual and societal affairs. It is simply that profound macro transformations (e.g., foraging to horticultural to agrarian) are relatively rare.

¹⁴ See note 17.

¹⁵ That is part of the AQAL reconstruction of Marx and his contributions: the importance of Marxist-historical materialist *component* is that it includes the Lower-Right dimensions of social systems and the institutional power they embody. What is entirely lacking in new paradigm and postmodern versions of “transformation” is they rely on subjective and intersubjective factors, totally overlooking objective and interobjective realities. Further, as we will see in our historical survey of the Lower Right (see **Excerpt B**), Marxism is a form of **developmental structuralism** in the broadest sense (or interobjective forces of production and relations of production: that is, relations of signifiers and systems of syntax). This can only be adequately analyzed using an IOS.

¹⁶ One of the many insuperable difficulties with the eco-primitivist view—which sees foraging tribes as an ecological, social, and political heaven—is that such a view has a very hard time explaining why, if that is the case, the foragers themselves abandoned that mode and adopted the

horticultural mode in virtually every case it was offered. Why would cultures by the droves abandon such an alleged heaven? To voluntarily jettison heaven, either the foraging tribes were incredibly stupid, or they were not in any real heaven at all (but more like a relative hell they were all too eager to transcend, which transcend they did).

¹⁷ By the way, the above account of the nature of social transformation is a short summary of one of the major sections of the original volume 2 of the Kosmos Trilogy (which will now be volume 3). That section deals with an in-depth analysis of individual, cultural, and social **transformation** from an AQAL perspective. It arrives at what I believe are many new and interesting conclusions about societal transformation, such as that the single greatest (but not sole) determinant of the average mode of consciousness is the form of the techno-economic base driving the governance systems of a society; there are also extensive discussions of the specific factors required to initiate transformation in any quadrant, and the evidence of the types of transformation that are—and are not—occurring in today’s world.

¹⁸ I would call this “four-quadrant prehension” or “quadratic prehension,” but that stretches Whitehead so much that it would be misleading. But the idea is indeed that all four quadrants “touch” their predecessors, and this touching is part of the quadratic inheritance. Still, Whitehead’s “prehension” really only covers the Upper Left, for reasons explained in the text (e.g., much of formative causation is not prehended, but exerts its influence nonetheless). See below in the main text, “From Partial to Complete Dia logical Inheritance.” If I occasionally use terms like “quadratic prehension” (because they are fairly simple to understand), please remember the actual meaning.

¹⁹ The interpretations of today become the facts of tomorrow as Kosmic inheritance—but if and only if they survive selection pressures in all four quadrants. Of course, more technically, it is the totality of this moment’s AQAL space that is handed to the next moment’s AQAL space, so that the facts (RH) and interpretations (LH) of this moment are handed to the facts and interpretations

of the next moment. The point is simply that facts and interpretations, or objectivity and subjectivity, or matter and consciousness, are inseparable dimensions of all holons.

Incidentally, the surface features (in any quadrant) have their own individual history, which is subjectively inherited as prehensive unification and objectively inherited as individual morphogenetic fields. In order to manifest, these must mesh with the given intersubjective and interobjective fields—again, the quadrants tetra-evolve.

²⁰ They were also involved in wave absolutism: modernity absolutized orange, postmodern absolutized green.

²¹ See note 10.

²² And, of course, prehuman holons are cut even deeper than that—they are cut not just one mile but hundreds and thousands and millions of miles into the Kosmos. The most fundamental holons—such as strings, quarks, and subatomic particles—go back virtually to the Big Bang itself, and thus their morphogenetic grooves have been cut into the Kosmos almost from the start. Succeeding holons—from atoms to molecules to cells to organisms to triune brains—are cut less and less deeply, and thus are **less fundamental** (but are **more significant**, since they transcend and include their predecessors—see *A Brief History of Everything*). By the time we arrive at human holons, although they compound and include previous holons, their defining or capping holons are thinly cut into the Kosmos, and thus although they are even less fundamental, they are much more significant, transcending and including as they do the entire historical cuts of the Kosmos, a prehensive unification whose sub-feelings go all the way back to feeling the Big Bang itself.

²³ Of course, if you add the different dimensions of time—there appear to be at least five in each of those four “spatial” dimensions—then the total dimensions of holons reaches 25 dimensions or greater. See endnote 9 for chap. 1 of *A Theory of Everything*, where I outline these 25

dimensions of advanced holons. But the simple four dimensions/quadrants will more than suffice for this discussion.

²⁴ See Appendix A of “Do Critics Misrepresent My Position?,” posted on this site.

²⁵ When we say that the subject of this moment becomes object of the subject of the next, it means within the subjective stream itself. Thus, the “interior object” of the new subject is quite different from the “objective dimensions” (which are the RH) of the subject. In order to show what this means, let’s use the words “interior” and “exterior” to refer to the subjective and objective streams (or the LH and the RH dimensions), and use “subject” and “object” in the Whiteheadian sense of prehender and prehended. What we then have is: the present moment has interior and exterior dimensions (LH and RH; for this example, we will focus on the individual quadrants, so that UL is “interior” and UR is “exterior”). The overall AQAL matrix is handed to the next moment, such that the present interior/subject of this moment becomes an interior/object of the interior/subject of the next moment (i.e., the felt subject in the UL becomes a felt object in the UL of the new subject in the UL; put differently, the felt subject becomes a felt object, subcomponent, or subholon of the new felt subject). AND, simultaneously, the present exterior (or UR correlate) of this moment’s interior/subject (UL) becomes an enfolded (or subcomponent) exterior of the interior/subject of the next (i.e., the exterior form of this moment becomes a subcomponent form of the new exterior of the next moment, whose interior correlate is the new subject prehending the old subject in the UL. The old interior subject in the UL has become interior object of the new subject in the UL, and the old exterior in the UR—including its morphic and subtle energy fields—has become a subcomponent of the new exterior in the UR, the sum total of which, along with the lower quadrants, is the total AQAL inheritance). See **Excerpt B** for further snappy reflections on this topic, where we will discuss why “inside” and “outside” are not the same as “interior” and “exterior,” and why that is important in a more integral methodological pluralism.

The point is that, if on occasion we lapse into merely Whiteheadian lingo (since a more complete and quadratic view takes time to explicate), please put this in its correct AQAL interpretive framework. For example, when we say that the facts-and-interpretations of this moment are handed as fact to the next moment, or that this moment becomes an object of the subject of the next, the actual reality is: the interiors of this moment are handed to the interiors of the next, while the exteriors of this moment are handed to the exteriors of the next, not dualistically but in nondual tetra-interaction. The AQAL matrix of this moment does not become a prehended object of the next moment, for only the subjective dimension in its surface features are actually prehended; all other aspects are handed as inheritance through the AQAL matrix, not through the prehensive unification (e.g., the individual subject never prehends its own deep patterns, nor its own stages of development, nor its own probability waves, nor its intersubjective background, and so on—unless it takes up specific second- and third-person inquiries). Again, Whiteheadian prehension is quintessentially a UL phenomena.

²⁶ **On the Nature of Involutionary Givens**

Are there any givens (other than past inheritances) that determine the nature of this moment's coming-to-be? Put differently, are there any givens that seem to have existed prior to the Big Bang? Among the few theorists who have thought clearly about this issue, the consensus seems to be yes.

Here is a myth that is sometimes useful in suggesting notions that cannot be grasped dualistically or conceptually in any event: As Spirit throws itself outward (that's called **involution**) to create this particular universe with this particular Big Bang, it leaves traces or echoes of its Kosmic exhalation. These traces constitute little in the way of actual contents or forms or entities or levels, but rather a vast morphogenetic field that exerts a gentle pull (or **Agape**) toward higher, wider, deeper occasions, a pull that shows up in manifest or actual occasions as the **Eros** in the agency of all holons. (We can think of this "pull" as the pull of all

things back to Spirit; Whitehead called it “love” as “the gentle persuasion of God” toward unity; this love reaching down from the higher to the lower is called Agape, and when reaching up from the lower to the higher is called Eros: two sides of the same pull). This vast morphogenetic pull connects the potentials of the lowest holons (materially asleep) with the potentials of the highest (spiritually awakened). The involutionary given of this morphogenetic field is a gradient of potentials, not actuals, so that Agape works throughout the universe as a love of gentle persuasion, pulling the lower manifest forms of spirit toward higher manifest forms of spirit—a potential gradient that humans, once they emerged, would often conceptualize as matter to body to mind to soul to spirit. “Spirit” (capital “S”), of course, was (and is) the ever-present ground of all of those manifest waves, equally and fully present in each, but “spirit” (small “s”) is also a general stage or wave of evolution: spirit is the transpersonal stage(s) at which Spirit as ground can be permanently realized.

The residue of this involutionary outpouring are various **involutionary givens** (or items that are given or deposited by involution, items that therefore pre-existed the big Bang and thus are already operating from the moment of the Big Bang forward), the most general of which is the great morphic field of evolutionary potential, a gentle gradient of persuasion pulling all manifest holons back to their ever-present Ground as Spirit—a Kosmic field of Agape, gently pulling evolution into greater and greater consciousness, embrace, inclusion. The universe, it appears, is tilted, and its entire contents are slowly sliding into the Source and Suchness of the entire display. This tilt, this grain to the Kosmos, this Agape, this vast morphogenetic potential, exerts a tender pull on evolution to unfold in waves of greater complexity, greater inclusiveness, greater depth, until the entire Kosmos is included in a prehensive unification that can swallow the Pacific Ocean in a single gulp, hold Mount Everest in the palm of its hand, blink and bring nightfall to the entire universe, smile and bring forth the sun to shine on all creatures great and small.

Are there involutory givens other than the great Kosmic morphic field of Agape (appearing in all holons as Eros)? In other words, are there any *a priori* forms, not just in the evolutionary sequence, but in the involutory sequence? We already saw that evolution inherits its *previous moment* as an *a priori* given. But those are not archetypal or timelessly pre-given forms, merely the past creative forms of evolutionary unfolding. We are now asking: are there any forms that were laid down as “memory” in the *involutory* sequence and which therefore show up as timelessly given forms that are present at the very start of evolution itself and operative at every point of evolution’s unfolding? As involutory givens, we have already postulated Eros/Agape and the morphogenetic tilt of manifestation. Are there any others? (That is, are there any *a priori* forms that are *a priori* to evolution’s *a priori* forms?)

Whitehead believed so: eternal objects, for example (these are things that you have to have before you can have anything else, such as shape, color, etc.).

Sheldrake implicitly has a set of involutory givens. For Sheldrake, there are no archetypal constants or pre-given forms, but in fact he introduces several universal, pre-given constants in order to explain morphic resonance and its formative causation. By Sheldrake’s own theory, there are certain categories that *must always be the case* in order for this theory of morphic resonance and formative causation to be true, and those *a priori* categories are in fact timeless (or archetypal in that sense). For example, Sheldrake sees the world as composed of energy and form; he sees energy causing energy and form causing form; he sees development occurring; and he sees creativity as essential. All of those—energy, form, causation, development, creativity—are seen to be present everywhere, timelessly, from the start—they do not themselves develop or evolve. They are therefore archetypal by his own standards, at least for this universe.

Most physicists today believe that when the Big Bang occurred, it seemed to be following certain physical laws described by mathematics. These mathematical matrices

therefore must have been present at or before the Big Bang (i.e., as involutory givens), and not something that came into being after the Big Bang and were then inherited by the future (which would be an evolutionary *a priori* for subsequent moments, and which do indeed exist; but these mathematical forms appear to be involutory *a priori*—not anything created in the past but present all along).

All of these involutory givens might be viewed as the patterns and constraints that are the residue of this particular round of involutory creation: what's left of Spirit's exhalation that resulted in the Big Bang, which was therefore already following these patterns (or involutory givens) when it arrived on the scene.

So it certainly seems that there are at least some forms of involutory givens. I would call these "archetypes," but that term has been so abused as to be perfectly meaningless. So let's call them "prototypes," or simply involutory givens.

On the other hand, many theorists, such as Plotinus, Hegel, and Aurobindo, went a bit too far in trying to specify and determine the form and sometimes content of these involutory givens. They tended to view these involutory givens as consisting of actual levels, sometimes with actual contents, so that evolution is nothing much more than a rewinding of the involution videotape.

That view, I believe, does not easily withstand today's scrutiny. In fact, all of those great pioneers were presenting metaphysical, premodern (and certainly pre-postmodern) constructions. As such, they did not adequately grasp the AQAL nature of manifest spacetime; in particular, they did not grasp the formative power of the Lower-Left quadrant: the inescapably constitutive power of the cultural contexts and backgrounds with which all subjects and objects are indelibly meshed, to which they must initially conform, and within which certain of their prehensions necessarily arise. Put bluntly, even the staggering genius of these great pioneers could not escape their own cultural embeddedness enough to see that much of what they called "universal pre-given

levels of being” were actually particular, socially constructed surface features. That is, *most of what they ascribed to involutory givens were really evolutionary inheritances*. Not forms eternally given by Spirit on its way to material manifestation, but inherited forms of past manifestation on its return to Spirit. This is why we are attempting to construct a **post-metaphysical**, post-postmodern spirituality that honors the essentials of these masters, while setting them in a context more adequate to today’s self-understanding (i.e., the form of Spirit’s self-prehension at this particular wave of its own playful unfolding).

Still, these blindingly brilliant, philosophical avatars of Eros saw one, overwhelming, awe-inducing fact: Spirit is your own *Original Face*. It is not something that is socially constructed, or that is created for the first time when you happen to stumble on it, or that pops out at the end of a temporal sequence, or that is nothing but some sort of Omega that can only be realized at the end of the universe. Spirit is your own ever-present, radically all-inclusive, always-already-the-case reality, which is why some notion of involution, or *return* to a Spirit that was never lost, is an inescapable part of the *theoria* of every great philosopher-sage, bar none. There is one, staggering, screamingly undeniable involutory given: the ever-present Ground of all grounds, Nature of all natures, Condition of all conditions.

Beyond that, the great philosopher-sages (premodern, modern, and postmodern) often disagree on the specifics of the other involutory givens. Honorable men and women can do so. I have stated my own beliefs in this regard (and will summarize them below). But the notion of involutory givens is a *necessary* framework with which the human mind, itself a product of evolution, must use *in order* to construe evolution in a noncontradictory way. As we saw, even the postmodernists, who deny any givens, actually present their own set of implicit givens to explain why there are no other givens.

Well, all of these theorists, it seems, are intuiting those faint traces and perfumed residues of Spirit’s quiet exhalation—your own original breathing out—that created this particular

manifest world and thus show up as involutory givens, there to be interpreted by the AQAL matrix of this and every moment.

As I said, this is a useful myth.

* * * *

Within that myth, we can summarize. The postulated list of *involuntary givens* seems to include:

(1) **Eros**. Eros basically is derived from one fact: Spirit creates the entire manifest world and every holon in it; in fact, every holon is Spirit-in-itself playing at being Other (e.g., the great nest of morphogenetic potential often summarized as matter, body, mind, soul, and spirit is actually Spirit-as-matter, Spirit-as-body, Spirit-as-mind, Spirit-as-soul, and Spirit-as-spirit). Since the reality, suchness, or isness of every holon is actually Spirit, but because most holons do not realize that they are Spirit, then each holon, so to speak, has an itch for infinity: each holon has a drive, a desire, a push, a telos, a hankering for God—which means, a drive to realize Spirit-itself, a drive which ultimately wants to embrace the entire Kosmos itself. This is a drive toward higher unions, wider identities, greater inclusion—culminating in God-realization, or every holon’s realization of Spirit, by Spirit, in Spirit, as Spirit. This ultimate realization, however, is not a summation at the end of the line, or a culmination of temporal additions, or a finite sum of finite parts adding up to One Really Big Finite Thing, but rather the realization of the ever-present, spaceless and therefore infinite, timeless and therefore eternal, formless and therefore omnipresent, Condition of all conditions and Nature of all natures and radically groundless Ground of all grounds. Nevertheless, in the manifest realm, the paradoxical result is a drive toward greater unity among finite things themselves, yearning to be Free and Full. This drive toward greater unity and wholeness in the finite realm is called Eros: the drive of all finite things

to find the infinite, which results in the increasing unification and differentiation-integration of finite occasions. In the temporal realm, the sequence of ever-increasing unifications is endless, stretching from the subtle into millions, billions, zillions of manifest realities in the future, as every moment transcends-and-includes its predecessors, thus bringing new truths, new experiences, new realities, and new integrations into being, with no discernible upward limit (because Spirit is not found as the upper limit of finite things but as their ever-present Ground, and therefore there is no final destination upward). At some point in this spiral of development and evolution, a holon becomes complex enough, differentiated-and-integrated enough, conscious enough, that it can begin to awaken to its ever-present Ground, even as the finite display continues on its agitated round of unifications. In that holon, Spirit then continues its play of manifestation, but now as a conscious, felt, vividly present Presence, a ray of infinity hooking out from that holon on the world that it created.

This drive—the drive of Eros—appears, to the third-person perspective of humans at or beyond the yellow wave, as a drive toward self-organization in all complex holons, a drive to create order out of chaos, a series of dissipative structures that eat energy and create unified form: against all scientific sensibilities (which see only “its” without intentionalities), and against every known law of physics (which imagines that “its” only run downhill), the material universe appears to be actively organizing itself into higher and more complex systems. Scientists scratch their heads. How can that be? The universe is self-winding. The universe seeks higher unions. The universe has a drive for self-organization. The universe... well, let us say plainly what the it-perspective misses: the universe is on fire with an unquenchable thirst for God. But however you wish to conceive this Eros, this drive to order-out-of-chaos, this astonishing autopoiesis at the very heart of matter, it is an uncontested pattern in evolution, and a pattern that cannot be accounted for by evolution itself.

Thus, Eros is postulated to be one of the involutory givens: that is, one of the items present from the start of evolution, a deposit in the manifest realm of Spirit's involution into, and as, that realm—faint echoes of Spirit's sneeze that set this particular round of the Kosmic Game in motion.

(2) If all holons reach toward Spirit, Spirit reaches out to all holons. The first is called Eros, the second is called **Agape**. Two sides of the same pull.

(3) A **morphogenetic gradient** in the manifest realm. This refers to the curvature of spacetime across all possible forms of the manifest or AQAL matrix: Eros operates through a gradient of increasing embrace. This gradient (clumsily expressed by premodern traditions as a pre-given, fixed series of levels and planes stretching from matter to body to mind to soul to spirit—the so-called “great chain of being”) actually represents the tilt of a universe looking for God. Involution creates, not a series of fixed planes and pre-given levels (there is no pre-given great chain), but a vast morphogenetic field of potentials, defined not by their fixed contents and forms but by their relative placement in the sliding field. (See “On the Nature of a Post-metaphysical Spirituality,” posted on this site.)

(4) Certain **Prototypical Forms** or Patterns. If involution creates, not a series of pre-given fixed levels but a fluid morphogenetic field, the question remains: are there any fixed forms that are involutory givens? We saw several: Whitehead's eternal objects, basic mathematical-physical laws, Shekdrake's implicitly postulated archetypes, and so on. A list of 20 proposed involutory givens can be found in chapter 2 of SES. These **20 tenets** are simply the residual forms of the Big Sleep, echoes of the Big Forgetting that set this round in motion, involutory forms that were tattooed on the translucent skin of the radiant Kosmos in its coming-to-be.

But aside from those relatively few involutory givens, keep in mind that what most theorists postulate to be involutory givens or eternal archetypes (i.e., **involutionary a priori**,

given for all time) are actually **evolutionary** *a priori*, or forms chaotically created in temporal unfolding and then handed to the future, *not* as forms that were predetermined even before they unfolded, but simply as Kosmic habits that various forms happened to take in their AQAL evolution, forms that were then handed as *a priori* to the next moment, an *a priori* determined not by eternal archetypes but by temporal history.

Still, the point is that at least some patterns appear not to be merely historical—and that is where it is necessary to postulate involutory givens. Of course, the theorists who do acknowledge involutory givens, such as Whitehead, must then postulate that the actual emergence of a given occasion is somehow a mixture of involutory givens, or timeless *a priori*, and evolutionarily-created or historical *a priori*, which are not determined prior to their emergence. For example, the early subatomic particles at the Big Bang were obeying various laws of physics, so their actual existence was a mysterious mesh of archetypal givens and historical contingencies. Some version of this mixture or concrescence of eternal objects and actual occasions is postulated by most philosophers who have thought carefully about issues of involution and evolution, and I accept the general outlines of these conclusions.

But two points: be as careful as you can that you are not confusing *evolutionary* givens—which are not eternally given but are created by temporal, chaotic, evolutionary history and bequeathed to the future as habits that are then givens or *a priori* in a temporal sense—and *involutionary* givens, which are what you must have before you can have anything else, and which therefore appear to exist at or before the Big Bang.

²⁷ These modes of inquiry only came into their own with the emergence of the orange probability wave (which is the first wave, not to possess third-dimensionality, but to *reflectively* grasp a third-person stance, and therefore the first mode to reflectively engage in hypothetical-deductive awareness which enacts and illumines this dimension).

²⁸ In fact, it was the Piagetian stream absolutism—or Piaget’s belief that the cognitive line was the one deep line against which all other developmental lines were surface—that eventually derailed developmental studies for a decade or two. Piaget did for developmental psychology what Hegel did for developmental philosophy—presented such a brilliant, tightly woven system that when one part of it collapsed, the entire edifice fell apart, taking the entire field with it. Much of what Piaget discovered about the cognitive line is still accurate and valid, but if and only if the cognitive line is seen as one of at least two dozen other, relatively independent developmental lines. It is quite true that the cognitive line is necessary but not sufficient for most other lines, but that does not mean that the other lines develop within the cognitive line—in fact, most of them develop quite behind the cognitive line, giving a very uneven psychograph for most individuals (see *Integral Psychology*). But if the cognitive stream is seen as one of two dozen relatively independent developmental lines, modules, or intelligences (e.g., Howard Gardner), then much of Piaget’s pioneering insights can be transcended and included.

Today, the most prevalent stream absolutism is probably Gravesian. That is, many people using the Graves system do not see that the values stream, brilliantly pioneered by Clare Graves, is merely one of the two dozen or so relatively independent developmental lines. Rather, the Gravesian structures/levels are taken to be the deep structures against which all other lines are surface, a stream absolutism flatly contradicted by considerable empirical research. Still, the Gravesian values line is a very important developmental stream (basis of the value meme or vMEME of Spiral Dynamics), and as such, it is an important if partial ingredient in any integral psychology.

²⁹ This is why systems theory and ecological sciences are still within the fundamental Enlightenment paradigm (the representation or reflection paradigm): what is now being represented is the *behavior of systems*, not the behavior of individuals, but the “mirror of nature” is still in place, with nature conceived as systemic, not atomistic. The Enlightenment paradigm

itself was actually a systemic reflection paradigm (what was represented was the “great system of nature”), contrary to the pop histories of it given by web-of-life theorists who insist the Enlightenment paradigm was atomistic in essence. But the point is, both atomism and systems theory are map:territory or reflection paradigms (one gross reductionism, the other subtle reductionism, but both reductionistic), because neither grasp the constitutive nature of first- and second-person dimensions.

³⁰ For involutory givens, including Eros, see note 26.