

Noosphere Evolution and Value Metabolism

*An examination of the nature and behavior of
the structures of consciousness and culture*

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Introduction

This is an exciting time in the history of human knowledge. The last ten years have seen the emergence of a significant new understanding of the relationship between the material world, subjective consciousness, and human culture. The promise of this new view of the world is an integrated understanding of matter, mind, and spirit—a unified theory of all experience. The achievement of such a synthesis is really the greatest challenge of our age. If we can successfully unify the “three cultures” of art, science, and morality within a comprehensive framework, it will mark the beginning of a *Second Enlightenment*. The essential connections between the distinct realms of

matter, mind, and spirit are now being revealed through the application of *a new theory of evolution*.

During the 20th century, thinkers and pioneers such as Alfred North Whitehead, Pierre Teilhard de Chardin, and Jean Gebser, explored and discovered many of the evolutionary properties of consciousness and culture. But in our time, there is emerging a new understanding of the *noosphere*¹ which has been achieved by combining the best of empirical science with the subtle insights of the world's great wisdom traditions. This synthesis has created a powerful lens—like Galileo's telescope—with which to view the *interior dimensions of reality*. This new understanding illuminates the structures of consciousness and culture that until now have only been approached dimly and by different paths without a common terminology or mutual recognition.

The person most responsible for the emergence of this new view of the world is Ken Wilber. In his seminal work, *Sex, Ecology, Spirituality* (SES), published in 1995, Wilber forcefully breaks through the limiting influences of scientific materialism and postmodern reductionism using the authority and power of science itself. And by following him into this new field of human understanding, we can marvel and explore, and begin the work of charting the contours of the landscape of this new domain.

This article attempts to add to Wilber's work by describing the naturally occurring hierarchical structures found in the *intersubjective* domain of evolution—the “basic units of culture”—the building blocks which act like genes or cells within the greater structures of our cultural world. This article also describes how noosphere structures actually use types of non-material “energy-like nutritional substance” to develop and maintain their forms. My thesis is that the primary *holons* of the cultural noosphere are *intersubjective relationships*, which, like all holons, are self-organizing dynamic systems that use the “spectrum” of *information, meaning, and value* to create order in themselves and their environment.² Understanding the underlying structures and habits of the intersubjective realm of evolution leads to increased health and functionality in human relationships and culture—it shows us how to actively promote the development of consciousness and society, and how to simultaneously treat their

arresting pathologies.

This article assumes a general familiarity with Wilber's four quadrant model of the universe. However, the beginning sections provide a brief review of Wilber's Tenets of Evolution, as well as an explanation of the Lower-Left quadrant of his model which charts the realm of intersubjectivity. There is also a brief summary of the theory of *Spiral Dynamics*, which Wilber has recently incorporated into his own explanation of the “Kosmos.” After this preliminary overview of the contextual ground, I describe how the structures of consciousness and culture actually metabolize the noosphere equivalent of energy. The article then examines the energetic qualities of the primary values—beauty, truth, and goodness—and shows how these values act as descriptions of the directions of evolution. I argue that evolution proceeds in three basic directions at once—the three *perfection directions*. And that this *tripartite evolution* is mirrored in each of the domains of “I, we, and it”. The article concludes by describing how an understanding of the underlying “biology” of the internal realm of evolution leads to increased health and functionality in human relationships and organizations.

The Search for a “Unit of Culture”

Materialistic science has acknowledged the existence of cultural evolution and has tried to subject it to a system of understanding based on physiological phenomenon. For example, mainstream scientist Edward O. Wilson (who believes everything can be reduced to the laws of physics) writes about the as yet unfulfilled search for what he calls the “basic unit of culture”:

Although no such element has yet been identified, at least to the satisfaction of experts, its existence and some of its characteristics can be reasonably inferred. Such a focus may seem at first contrived and artificial, but it has many worthy precedents. The great success of the natural sciences has been achieved substantially by the reduction of each physical phenomenon to its constituent elements, followed by the use of the elements to reconstitute the holistic properties of the phenomenon....

The notion of a cultural unit, the most basic element of all, has been around for over thirty years, and has been dubbed by different authors variously as mnemotype, idea, idene, meme, sociogene, concept, culturgen, and culture type. The one label that has caught on the most ... is meme, introduced by Richard Dawkins in his influential work *The Selfish Gene* in 1976.³

The theory of memes has given rise to an emerging “science of memetics” that explains all mental-cultural phenomena as “encoded patterns of neuron activation.”⁴ The primary problem of the theory of memes is its “subtle reductionism”—its attempt to reduce the interior holons of consciousness and culture to quantifiable exterior phenomena. According to Wilber, “Memes are distorted and inaccurate two-dimensional pictures of four-dimensional holons ...”⁵

However, not all attempts to discover the elements of cultural evolution have suffered from this subtle reductionism. One theory incorporating the concept of “memes” has emerged which largely satisfies the empirical demands of science and the multidimensional requirements of integralism. This system of human development, based on the extensive research of psychologist Clare W. Graves, is called *Spiral Dynamics*. The theory of Spiral Dynamics maintains that individuals and cultures naturally evolve through successive universal stages of development. According to Graves, “Each successive stage, wave, or level of existence is a state through which people pass on their way to other states of being. When the human is centralized in one state of existence, he or she has a psychology which is particular to that state. His or her feelings, motivations, ethics and values, biochemistry, degree of neurological activation, learning systems, belief systems, ... education, economics, and political theory and practice are all appropriate to that state.”⁶ These successive stages are identified as “value-attracting meta-memes” which act as “magnetic fields that bind entities together or cause them to repel.” These “biopsychosocial systems” are designated by the technical term “vMEME.” Figure 1 includes a description of the vMEMEs and the color codes that are used by Spiral Dynamics theorists Don Beck and Christopher Cowan to designate each of these discrete stages.

Spiral Dynamics represents the current culmination of a host of developmental systems that have been proposed by theorists including Maslow, Piaget, and Kohlberg. These theories of the emerging stages of consciousness development have significant research backing them up, and, although the various theories differ in many respects,

SPIRAL DYNAMICS VALUE-ATTRACTING META-MEMES				
Stage	Color Code	Thinking	Popular Name	Cultural Manifestation Examples
1.	Beige	Instinctive	Survival Sense	Survival bands focused on basic physical needs
2.	Purple	Animistic	Kindred Spirits	Tribes with deep rituals, myths and superstitions
3.	Red	Egocentric	Power Gods	Empires bent on conquest and impulsive gratification
4.	Blue	Authoritarian	Truth Force	Groups concerned with rules, tradition and obedience
5.	Orange	Strategic	Strive Drive	Corporations seeking more wealth and status
6.	Green	Consensus	Human Bond	Cultures sharing egalitarian feelings
7.	Yellow	Systemic	Flex Flow	People integrating self, culture, and nature
8.	Turquoise	Holistic	Whole View	Collectives engaged in worldcentric service

Figure 1. Stages or waves of Spiral Dynamics “vMEMEs”

there is remarkable agreement about the broad outlines of the psyche’s developmental trajectory. Spiral Dynamics stands out however, because it identifies previously undetected details that have significant explanatory power. Among the unique contributions of Spiral Dynamics is the insight that each of the vMEME stages arise in reaction to a specific set of life conditions, and that the satisfaction of one set of life conditions gives rise to new life conditions that activate the next vMEME stage. For example, the chaos and brutality that often accompanies the red vMEME’s quest for power, gives rise to the blue vMEME’s values of law and order and obedience to a rightful authority. Spiral Dynamics identifies a dialectic progression of stages which alternate in focus from individual to community. Spiral Dynamics also presents a new facet of developmental theory through its introduction of the concept of “second-tier”

consciousness. The extensive research conducted by Graves and the Spiral Dynamics theorists shows that the first six stages are “subsistence levels” (the “first-tier” wherein each stage sees its own worldview as the best perspective), but that upon the awakening of the seventh stage (the yellow vMEME, which marks the beginning of the second-tier), there arises a new appreciation of the necessary role that each stage plays in the overall development of the spiral. Second-tier thinking recognizes the necessary steps through which consciousness and culture must pass, and thus sees each stage like a grade in school—the higher levels can only be reached by passing through the lower foundational levels.

Although it can be argued that all the features of Spiral Dynamics have been partially included in one or more of the previous developmental theories, Spiral Dynamics transcends and includes these prior theories because it emphasizes the importance of *values* within the evolution of consciousness and culture. And perhaps more than any other developmental theory of consciousness, Spiral Dynamics is equally descriptive of the development of ontogeny and phylogeny: That is, the parallel between the development of the individual and the development of human culture as a whole is clearly demonstrated by the application of the theory.

By using and working with the Spiral Dynamics perspective, the indispensable role that vMEMEs play in the development of culture becomes obvious. However, the theory of vMEMEs does not offer a complete picture of the holarchy of the intersubjective realm of evolution. There are some important aspects of cultural evolution that have not yet been addressed by either Spiral Dynamics or Ken Wilber.

The Laws of Evolution Applied to the Noosphere

In the 300 years or so since the Enlightenment began, science has discovered and well-documented many of the holarchic structures and systems of the biosphere and the physiosphere. We know about the myriad types of cells and how they function. We

have discovered the geologic history of the earth, and the motions of the planets. And we have recognized how the external world evolves and develops in the general direction of increasing order and complexity. The well-known habits, techniques and laws of chemical and biological evolution can now serve as a robust guide for the task of discovering the habits, techniques and laws of the noosphere.

In his four quadrant model, Wilber shows that the noosphere, like the biosphere and physiosphere, consists primarily of individual and social holons⁷ governed by his *Twenty Tenets of Evolution* (a condensed version of which is shown in Figure 2). Wilber’s Tenets are presented as “the laws of form” and the “tendencies of evolution” that “are operative in all three domains of evolution—the physiosphere, the biosphere and the noosphere.”⁸

KEN WILBER’S TENETS OF EVOLUTION
1. Reality consists of individual and social holons (and artifacts and heaps).
2. All holons have four drives: agency (self-preserving), communion (self-adapting), eros (self-transcending—embracing higher), and agape (self-immanence—enfolding lower).
3. Holons emerge in hierarchies wherein each holon transcends and includes its predecessors.
4. In every holarchy, the lower holons set the possibilities, the higher set the probabilities.
5. “Depth” is the number of holonic levels in a holarchy, “span” is the number of holons in a level—with more depth there is more consciousness and less span.
6. The destruction of a holonic level destroys all holons above it, and none below it.
7. Every holon “tetra-evolves” simultaneously within the domains of “I, We, It, and Its.”
8. Every holon is in relational exchange with same-depth holons in its social environment.
9. As holons emerge, they increase in complexity, integration, structure, autonomy, and teleology.

Figure 2. Wilber’s tenets of evolution (condensed)

And within the noosphere, Wilber identifies two distinct interior, or “Left-Hand” realms—the subjective domain of individual consciousness (the “Upper-Left” quadrant, which he refers to as the level of “I”), and the intersubjective domain of interior shared

worldspace (the “Lower-Left” quadrant, which he calls the level of “We”). In the Lower-Left quadrant of Wilber’s model, the holons of the intersubjective domain are identified as “culture and worldview.” In describing this “We” domain Wilber explains:

The Lower-Left quadrant involves all those patterns in consciousness that are shared by those who are ‘in’ a particular culture or subculture. For you and I to understand each other at all, we need, at the very least, to share certain linguistic semantics, numerous perceptions, worldviews that overlap to some degree (so that communication is possible at all), and so on. These shared values, perceptions, meanings, semantic habits, cultural practices, ethics, and so on, I simply refer to as culture, or the intersubjective patterns in consciousness.⁹

The structures of the Lower-Left quadrant have been briefly outlined by Wilber using both Jean Gebser’s description of evolving worldview levels (archaic, magic, mythic, rational, etc.), and in the terminology of Spiral Dynamics (animistic-magical, power gods, mythic order, scientific-rational, pluralistic, integral, etc.).¹⁰ And although he has yet to undertake a direct and detailed description of the domain of intersubjectivity in his work, Wilber does make clear that, like consciousness itself, “intersubjectivity is woven into the very fabric of the Kosmos at all levels—not just the linguistic levels, but all levels, right down to atoms and quarks.”¹¹ Indeed, Wilber argues that even subatomic physiosphere holons have a type of interior consciousness which he calls “prehension,” after Whitehead. And this type of “subatomic consciousness” (a holon in the “I” domain) is, in a sense, evidenced by a corresponding form of *communication* (in the “We” domain): “[E]ven atoms translate the physical forces around them into terms that they respond to: an empty orbital shell is a sign, to an electron, that it may enter the shell.”¹² Wilber’s point is that wherever there is consciousness—wherever there is subjectivity—there is also intersubjectivity. That is, consciousness and culture are everywhere connected and interactive because the holons of consciousness are by their very nature engaged in a process of sharing or exchange (which is one of the *Twenty Tenets*).

So the intersubjective domain of evolution consists of “all those patterns in

consciousness that are shared.” But how do these patterns come to be shared? What is the stuff of intersubjectivity? It seems to me that intersubjective holons can be broadly defined as *dynamic systems of communication*. These systems of communication that result in shared experience can arise from either conscious or unconscious exchanges—the communication can be either intentional or contextual, explicit or implicit. And because there are so many subtle and contextual ways that subjective consciousness can be intersubjectively influenced, it is easy to lose sight of the fact that intersubjective holons consist of the actual connection, or contact, or transmission between subjects. Regardless of whether the intersubjective connection is pre-linguistic (as in body language), linguistic (as in a conversation), or trans-linguistic (as in the “felt-presence of being”), intersubjectivity only arises when there is some shared connection—some form of communication—being exchanged between subjects. And so we can begin to see how communication, defined broadly to include all the ways that one holon can make contact with another, acts to define the intersubjective domain of evolution. And in the noosphere the *substance of what is communicated* works in a way that is very analogous to the behavior of physical energy in the physiosphere and the biosphere. And so it is with the discussion of this energy-equivalent in the noosphere that my theory begins.

Autopoiesis in Noosphere Holons

One of the most interesting features of holons is their self-organizing property—their capacity for *autopoiesis*. The well-defined holons of the exterior individual domain clearly exhibit this self-organizing process through their behavior as dynamic systems. And part of what defines a dynamic system, whether it takes the form of a whirlpool, a cell, or a dolphin, is that it contains within itself the code of its pre-determined structure. Dynamic systems arise from within themselves. And these self-preserving coherent patterns of autopoiesis are maintained by dynamic systems within an environment of constant change. In the exterior realm of nature, the technique these

dynamic systems use to maintain and develop their ordering pattern is through the exchange or metabolism of some form of energy. Systems science has shown that physical dynamic systems create order in themselves and their environment by metabolizing energy. And self-organizing processes create more organization all the time. This is the dynamic behind evolution. What sustains the organization in these processes is the energy flowing through the process. The process extracts order from the energy, and in so doing degrades the energy (or in other words, increases its entropy, the measure of disorder). For example, we are all familiar with the way living things use energy to maintain their bodies, and how their metabolization of various forms of energy results in byproducts such as carbon dioxide or fecal matter. And we can see how a life form's relationship to the "food chain" of energy nourishment in which it participates serves to define almost every aspect of its form. For instance, how an animal gathers and uses food (and usually how it keeps from becoming food) determines the structure of its body.

Wilber makes it clear that what unites the interior and exterior domains of evolution are the common laws (the Twenty Tenets) which govern the form and development of all holons. And with respect to the holons in the Lower-Left quadrant, Wilber affirms that they too are self-organizing: "What both individual and social holons have in common is, well, many things (see SES), but especially important is that they both have an identifiable pattern, agency, code, or regime that spontaneously arises (in something like an autopoietic fashion) and imposes order on the holon from within the entity or system, and is the identifiable pattern that lets us recognize that holon as an existing entity."¹³

Thus we understand from Wilber that our consciousness and culture consist primarily of self-organizing holons. And we know from biology and systems theory that self-organization arises from the continuous metabolization of energy.¹⁴ So when it comes to the holons of the collective interior domain—those essential elements of culture that define and govern our shared worldspace—we are faced with the intriguing question of: what is the energy-like, power-giving substance, or medium of exchange

that powers their autopoiesis? We can begin to answer this question by observing the process of energy metabolism as it has evolved over millions of years within the evolution of the biosphere.

Naturalists and Biologists have charted the time line of evolution's progress through the social holon known as the "tree of life." The tree of life maps the holonic development of species from the first types of bacteria up through the primates to modern humans. Along side the tree of life we can see a parallel type of holonic progression known as the "food chain." And the food chain arguably begins in the physiosphere.

In the first billion years of history on earth, the atomic elements interacted with various forms of energy to mold the early holons of chemical evolution in the physiosphere. As the planet cooled and the atmosphere emerged, complex molecules began to form larger dynamic systems (such as clouds) which exchanged heat energy in the process of their existence. And then as the physiosphere developed the systems of energy exchange that are its "climax holons" (warm shallow seas, oxygen-rich atmosphere, water-circulating hydrosphere), the biosphere emerged. At first, the fundamental holons of the biosphere metabolized the same forms of solar energy that sustained the higher holons of the physiosphere. But eventually, as the biosphere's organisms became more complex, their form of energy nourishment also became more complex—as plants and animals evolved, so did the food chain.

The holons of the vegetable kingdom are nourished primarily by the sun, but animals are nourished primarily (at first) by plants. The holonic jump from plant to animal co-evolved with the use of a higher level of food chain nourishment. Even though the energy of vegetable matter as food can be traced back to solar energy, the form of holon that can metabolize plant energy as food is significantly more complex (has greater holonic depth) than a holon whose chief metabolism is photosynthesis.

And just as we can now recognize the historical development of the food chain in the objective realm of evolution, we can now also begin to see how a similar holarchy of "nourishment" has unfolded in the intersubjective realm of evolution through the

development of the “food chain of communication.” As subjective consciousness evolved from subatomic prehension, through irritability, sensation, perception, and then up through emotion to concepts, vision logic, and beyond, so too did the systems of intersubjective communication evolve into the complex social holons that make up the identifiable realms of human culture discussed in this article. The communicative exchanges of the earliest identifiable forms of consciousness, such as “subatomic prehension,” consisted of simple *information* about the state of being of the subject—as previously mentioned, the state of an atom’s orbital shell is a sign to an electron that it may enter the shell. Then as the organisms of the biosphere began to appear, the information transmitted between them evolved in complexity. For example, the bloom of a flower transmits the information of its readiness to pollinate.

As evolution proceeded and animals appeared, consciousness developed more depth. Consciousness gradually evolved to include more perceptive ability, more interpretive ability, and more intelligence in general. And as the complexity of subjectivity evolved, so too did the complexity of intersubjectivity. Intersubjectivity evolved through an increase in the depth of what was communicated. As intersubjective evolution proceeded from the information transmitted by the atom’s orbital shell, to the flower’s bloom, to the bee’s dance, to the bird’s song, the information communicated contained more and more *meaning*.

In the evolution of the intersubjective noosphere, the increasing appearance of meaning within the communication of information eventually accumulated to the point where it emerged as a new and distinct holonic level. In the same way that a new level of biological organism (such as an animal) appears concomitantly with the ability to use a new level of food chain energy (such as the ability to eat plants), a new level of “cultural organism”—a new level of communication system—likewise emerges when the substance of what is communicated between subjects takes on a new level of complexity—the emerging depth of meaning.

In summary, the self-organizing “throughput” of the earliest forms of intersubjective holons is information. In the early noosphere, sensory information acts

as the form of *order-creating nutritional “noosphere substance”* that is exchanged in the simplest systems of communication. The use of information by these systems of communication is analogous to the use of food-energy nourishment by the organic systems of the biosphere. As the subjective holons of consciousness evolve, we see a corresponding co-evolution among the holons of the intersubjective realm. And as evolution proceeds, we can see these systems of communication advance from exchanges of information to exchanges of the more complex substance of meaning.

And so returning to our question: what is the energy-equivalent or medium of exchange that powers the autopoiesis of intersubjective holons? As a preview of the next two sections, we can answer that the holons of the intersubjective domain are dynamic systems of communication that create and maintain their self-organizing forms initially through the exchange of *information* (primarily), followed later in the evolutionary time line by the increasing exchange of the substance of *meaning*. And as I hope to show, the holonic level of meaning is itself transcended and included by exchanges of what can best be termed *value*. However, before we take up the central topic of value as a form of noosphere nutrient, we must examine the structure and function of the dynamic systems of communication that use this form of energy-like nutritional substance. Now that we are beginning to have an idea of the substance that powers the self-organizing systems of the intersubjective noosphere, we can start to examine the systems themselves.

Agreements and Relationships—Noosphere Organisms

The communication of information among early life forms is, in a sense, automatic. The subjective consciousness of plants and primitive animals receives the information it needs from its intersubjective world largely by instinct. But as consciousness evolves to encompass new levels of depth, new types of communication systems appear that serve to share and exchange this emerging depth of consciousness.

In the time line of evolution, the appearance of new communication systems is evidenced by the development of specialized sounds or movements in animals. According to evolutionary systems scientists Ervin Laszlo, “[culture] evolved from expressive signs, such as animals use to communicate, to denotative symbols, typical of human languages. Whereas signs provide a stimulus which signals something of immediate significance in the communicator’s environment, a symbol may have a meaning which is entirely divorced from the here-and-now.”¹⁵ Laszlo, however, does not clearly distinguish between the cultural holons of the intersubjective realm and the *interobjective* features of the exterior domain. The symbols Laszlo refers to are the sounds made by the mouth, the pictures on the cave wall, or the images made by the hand in sign language—these are mostly artifacts, not holons.

Intersubjective holons are “patterns in consciousness that are shared by those who are ‘in’ a particular culture.” So it is not the sign or the symbol or the external act or artifact that comprises the fundamental holon of the intersubjective noosphere, but the connection or accord between the subjects participating in the communication. That is, intersubjective holons exist in the shared connection—the overlap of consciousness that exists between subjects—and so they are neither wholly subjective consciousness nor wholly objective events. A complex intersubjective holon does not arise from symbolic communication until there is a kind of *agreement* about what the symbols *mean*. That is, the successful communication of meaning requires interpretation—the transmission of meaning depends on a kind of *mutual understanding*. For the meaning to be *shared* there must be what Wilber calls “a type of interior harmonic resonance of depth.”¹⁶

So just as the emergence of the cell represents a transcendent breakthrough in the evolution of the biosphere, so too does the emergence of depth-sharing agreements between subjects represent a breakthrough holon in the intersubjective noosphere. I am using the term *agreement* in a technical way to describe the *consummation of the communication of interior depth*—a connection that gives rise to a distinct form of holon in the Lower-Left quadrant. By “agreement” I mean the *receipt or exchange of interior substance* (the meaning or value, not just the sound). This type of agreement

can be formed even if the subjects don't "agree with each other"—as long as they understand what is meant. An agreement is thus the most basic type of intersubjective relationship that arises as a result of the successful communication of the interior depth of consciousness. For example, when a prairie dog whistles, the other prairie dogs in the "town" make the connection that this is a warning—the prairie dogs' receipt of the meaning is a kind of simple agreement. The connection between the signifier and the signified (using the language of Ferdinand de Saussure)—what is given and what is received—creates a simple dynamic system in the intersubjective realm (which Wilber acknowledges is a holon¹⁷). And this communicative system of exchange itself evolves as the complexity of what is being exchanged increases. In other words, as simple forms of meaning (like the presence of immediate danger) are transcended by more complex forms of meaning (like the fairness of a decision), the type of relationship that arises from this "holon-building energy-like substance" becomes more complex—more evolved. As we move from the communication of the meaning in a simple whistle to the communication of the ideas in an entire book, the nature of the relationship arising from the exchange increases in evolutionary complexity.

Returning to comparisons with the biosphere, if we recognize the primary holons of the biosphere as organisms (spanning the range from single-celled organisms to humans), we can likewise identify the primary holons of the intersubjective noosphere as *relationships*. Just as biological organisms metabolize various forms of food chain energy to live, noological relationships exchange the various forms of communication input (the 'food chain' of information, meaning, and value) to maintain their "life." So within the broadly defined category of organisms, we have distinct levels such as plants, animals and humans. Likewise in the broadly defined category of relationships we have simple agreements about the exchange of information, all the way up to complex human relationships—family relationships, relationships among friends, and the relationships between leaders, teachers and artists and those who follow them. And it is through the accumulations of relationships into *relationships of relationships*—groups, organizations, and cultures—that the larger worldviews and vMEMEs that comprise the

senior social holons of the Lower-Left quadrant are formed. (The higher levels of the intersubjective holarchy are described in further detail toward the end of this article.)

A cell is the breakthrough holon in the emergence of the biosphere—it is the smallest unit that can be identified as a true organism. Like a cell, an agreement (as I am defining it) is a breakthrough holon in the noosphere and the smallest system of communicative exchange that can be identified as a depth-exchanging relationship of mutual understanding. And just as cells become the subholons of the human body, so do agreements become diversified and specialized to perform subtle and complex tasks within the larger system of a complex human relationship. For example, a significant human relationship is made up of innumerable tacit and express agreements (including unconscious agreements that arise from shared contexts). Consider all the agreements that make up a typical close personal relationship—both subjects speak the same language (every word in our language is an artifact that evidences an underlying agreement about meaning), both share common experiences, and the subjects probably agree about a series of activities that are worthwhile or fun. If we think of a human relationship as a cord or rope, we can see how the many forms of agreement make up the strands of that cord (as illustrated in Figure 3). As a human relationship moves through time it becomes increased or diminished as those agreements are renewed or abandoned.

Thus, agreements can be understood as the building blocks of human relationships. What we have “in common” with others is how we “relate” to them (even if a relationship is based on a disagreement, it still counts as the kind of connection I am describing). But truly significant human relationships are usually based on more than the exchange of mere meaning. Relationships become most significant to our consciousness when they arise from exchanges of *value*. One of the primary points of this article is that systems in the internal realm of evolution exhibit many similarities to systems in the external realm. And just as the holarchy of biological organisms is stretched upon the frame of the distinct levels of the food chain, so too is the holarchy of noological structures organized around a spectrum of distinct levels. And with this understanding,

value can be seen as a distinct level in this spectrum of “noosphere food” above the levels of information and meaning. What I mean by the term “value” is the subject of the next two sections.

Simplified Relationship Cross-Section

An illustration of the common values or “channels of agreement” that arise as explicit and implicit (verbal and non-verbal) vessels of communication in a relationship.

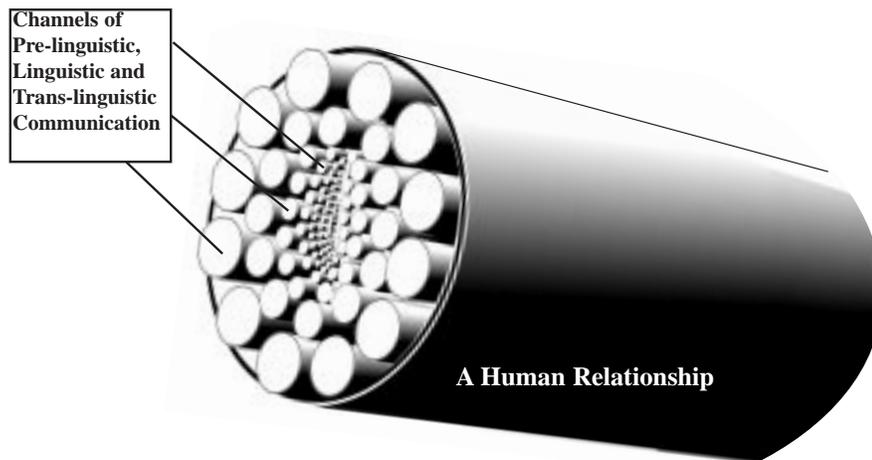


Figure 3. Cross-section of an intersubjective relationship

From Meaning to Value

Looking back through the time line of evolutionary history, meaning can be increasingly discerned within the communications of the evolving holarchy of consciousness. And as human consciousness arises, we can begin to discern within perceptions of information and meaning the emerging seeds of value—those matters of “ultimate human concern” that constitute ends in themselves. That is, the most significant information is that which has the most meaning, and the most significant meaning is that which has the most value. Just as the growth of meaning (contained within information) comes to transcend and include the significance of simple

information alone, so too do emerging perceptions of value (discerned within information and meaning¹⁸) come to transcend and include the significance of meaning alone in the mind of the subject.

The “food chain” of the noosphere can be described as the *continuum of that which is communicated* to form agreements and relationships. And the forms of such communication can include language, art, actions, or various forms of contextual communication such as “felt presence.” But, like all holarchies, this continuum of noosphere energy-like nutritional substance is marked by distinct quantum levels. That is, all energy is part of a continuum of vibration marked by periodic intervals. So extending our comparison of noosphere nutrients to physical energy, it seems appropriate to identify at least the most basic levels within the communication continuum as distinct in character and behavior. The level of value can be distinguished from the level of meaning, because value is *meaning that has spiritual significance*. For example, in the communication of the value of beauty through a work of art, there is usually an understanding of meaning within the art (i.e. we understand that the image is of a landscape), but the experience of the beauty is beyond mere understanding. What makes the landscape image work as art is its *transrational communication of value* that transcends and includes its information and meaning. The powerful relationship-building potential of communications of value is seen in the way people feel intimately connected with their favorite artists. The exchange of value, such as beauty or truth, produces relationships which are more significant than relationships based on the exchange of information and meaning alone.

And so it is through an examination of human relationships that we can best begin our exploration of the contours of value. It seems to me that there are two basic types of significant relationship that make up our cultural world—relationships with people we know personally (such as our family, friends and work associates), and *impersonal* relationships with people who have taught or inspired us. These impersonal relationships are with the artists and musicians who move us, with the teachers and thinkers who nourish us with understanding and ideas, and with the leaders and heroes

throughout history whom we admire for the good they have done in the world. And many of us also have a kind of relationship with a spiritual master such as Jesus or the Buddha; someone whose teaching we endeavor to follow as the path of right living and thinking. In some ways, it is these impersonal relationships—these heroes and historical role models—that have the biggest influence on our subjective worldview.

The *energy-like, order-creating nutritional substance* that causes these significant impersonal relationships to arise can be identified as variations of the essential elements of value—which, as I hope to show in the next section, can be understood as the beautiful, the true, and the good. For example, in my life, the relationship I have with Mozart arises from the transmission of beauty-energy. The relationship I have with Plato arises from the transmission of truth-energy. And the relationship I have with Martin Luther King arises from the transmission of goodness-energy. Conversely, the relationships I have with my students and the people who admire my work give me energy too, even though I may not know them personally. And the values flowing through impersonal relationships power the commonality of interest that often develops into personal relationships. Values power relationships by unifying people—by giving them something in common that is energizing and motivating.

Consider the example of Bob Dylan. In the early '60s, Dylan made a significant contribution to the development of the noosphere by acting as a harbinger of a new cultural worldview. '60s youth flocked to Dylan because he “sat behind a million eyes and told them what they saw.”¹⁹ Just about everyone in the emerging counter-culture of the '60s could relate to Dylan, and the relationships between this artist and each member of his audience (as well as among the members of the audience themselves who were united by Dylan's music) became a significant new cultural development. The people who became hippies in the Sixties were influenced by more than just personal peer relationships, they were also significantly influenced by their impersonal relationships with energizing artists like Bob Dylan.

The *matrix* of personal and impersonal relationships that are our primary source of contact with the intersubjective realm serves to “contain” and feed our subjective consciousness from the inside, just as our bodies “contain” and feed our consciousness from the outside. (See Figure 4.) Our relationships *hold up our reality*. This is acknowledged by Ken Wilber:

The individual self rests upon—and grows out of—a network of conventional dialogue, membership and shared experiences, G.H. Mead called this the ‘generalized other,’ which means that the subjective self is actually formed in an *intersubjective* process of dialogue and common recognition. (The cases of ‘wolf boy’—humans raised in the wild—show that a human being, left on its own, will not develop a personal self.) I can only become aware of myself *as a person* in a community of others who recognize me as a person. That is, I have to be able to take the role of others—and see how they see me—in order for me to see myself as well! Thus, my *very identity* is formed through a process of reciprocal recognition with the cultures and subcultures in which I find myself.²⁰

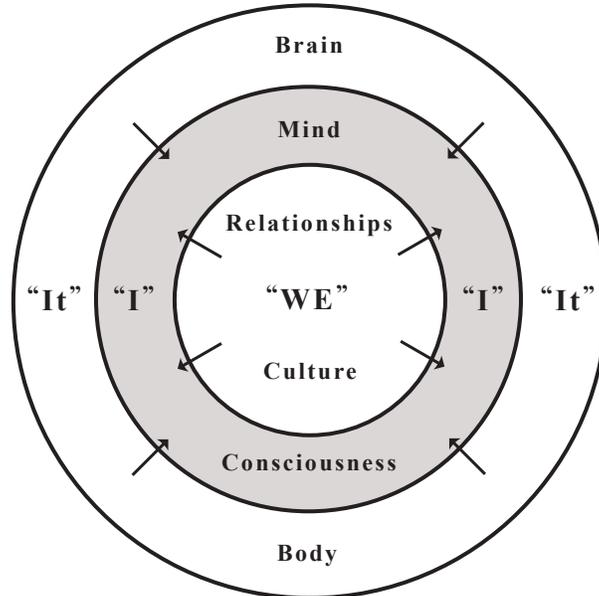


Figure 4. The “nest” of intersubjective, subjective, and objective realms of evolution

And this process of “reciprocal recognition with cultures and subcultures” comes

by and through our personal and impersonal relationships. So if we were able to really identify and chart the people and groups whose relationships make up our *relationship matrix*, we would see how these relationships serve to nourish our consciousness with a spectrum of value nutrition. (See Figure 7 on page 38 for a graphical representation of a hypothetical relationship matrix.) And we may also see how the lack of certain types of relationships causes us to be “malnourished” in the health of our consciousness. (We will return to the topic of “value nourishment” in later sections.) A relationship becomes energizing to our consciousness when it involves an exchange of something more than mere meaning—*the nutrition of value transcends and includes the nutrition-quality of meaning alone*. If the difference between information and meaning can be measured by the addition of a new dimension of depth (the difference between matter and mind), then the difference between meaning and value can likewise be understood as a transcendent increase in depth—the difference between mind and spirit. Value can thus be understood as a form of energy-like *dynamic quality* that transcends and includes meaning.

The spectrum of information, meaning, and value is the food chain of the noosphere. The food chain analogy fits because information, meaning, and value act in the interior realm in a manner very similar to the action of physical energy in the exterior realm—the substance of communication gives rise to actual holons (intersubjective agreements, relationships, and groups) whose forms emerge in the process of the exchange. Indeed, how could there not be a noosphere equivalent of the energy exchange feature, which is so central to the functioning of chemical and biological evolution? And if the energy-like substance exchanged by noosphere holons is not information, meaning, and value, then what is it? While the content of subjective consciousness consists of feelings, thoughts, and decisions, the content of intersubjective cultural structures consists of the substance of what is shared by subjective consciousness—the substance of information, meaning, and value.

Beauty, Truth, and Goodness—The Primary Values

Value is more of a direction than a thing; more of a verb than a noun. I am defining value as a form of spiritual power. And although what is valuable is always relative to the perspective of the individual,²¹ I believe it is possible to better understand the nature and behavior of value by examining its energy-like qualities. Much of the reasoning in this article is based on the premise that there are similarities between the nature and behavior of the physiosphere, the biosphere, and noosphere. Indeed much of the power of Wilber's thinking comes from his demonstration of the unity of these evolutionary levels through the Twenty Tenets and the four quadrants. Accordingly, when we recognize that the holons of every level exhibit some form of autopoiesis, and that this autopoiesis is activated by some form of nutritional exchange or metabolism, we can then begin to identify how information, meaning, and value serve the holons of the noosphere in the same way that food energy serves the holons of the biosphere. Thus if we can identify value as somewhat akin to physical energy, we can begin to compare its behavior to the actual behavior of physical energy to see what insights this may yield. And so if we look at the electro-magnetic spectrum of physical energy, and specifically at the behaviors of light,²² we can begin to see certain similarities between the behavior of light and the behavior of value.

White light divides into the millions of shades of color that reflect the surfaces and textures of the external world. In human perception (because of the existence of three color receptor cone types in the eye), the dispersion of color is organized in a natural hierarchy whereby three primary colors make up the first separation of white light.²³ Three primary colors can be combined to produce approximately all the other visible colors in the spectrum—the coordinates of the field of human vision are mapped through the use of just three basic colors. And although there is no such thing as *the* primary colors, the range of colors perceptible to humans can only be accurately represented by three colors when (in the case of light on a TV or computer screen) one of the colors looks mostly blue, one mostly red, and one mostly green.²⁴ And we can

see something very similar in the way value is dispersed into the millions of subtle shades of quality in the noosphere. Although we don't know exactly which structures in the human neocortex perceive value, we can reason by analogy that the coordinates of the "the spectrum of perceivable values"—the wavelengths of quality perceived by the human mind and spirit—can be approximated with three basic values: one mostly about beauty, one mostly about truth, and one mostly about goodness.

Indeed there is a significant degree of "consensus evidence" that there are three "primary values"—*the beautiful, the true, and the good*. According to the theory of primary values, the worth of anything that we could consider valuable can be associated with, or traced back to, one or more of the basic values of beauty, truth, and goodness. Like the three primary colors, the triad of beauty, truth, and goodness describes the fundamental categories of value which divide and combine into practically every identifiable type of quality. And we can carry the analogy one step further (as illustrated in Figure 5) by recognizing that just as whole white light can be produced through the additive colors of red, green, and blue light, the ultimate value of love might be similarly approximated by the sum total of beauty, truth, and goodness.

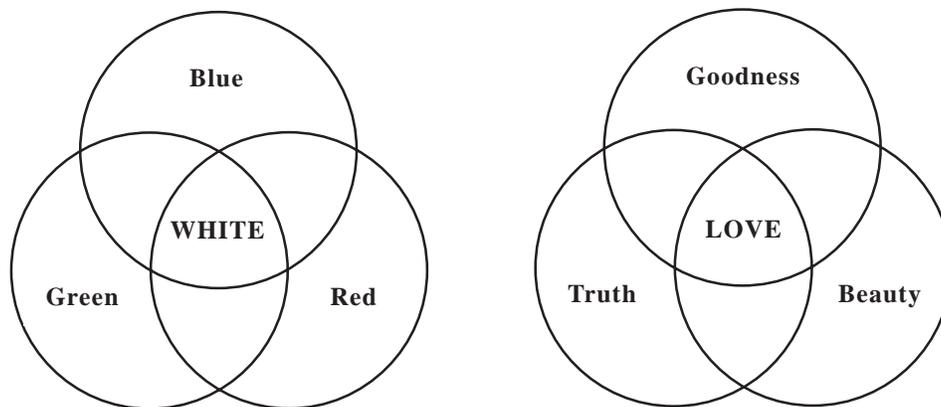


Figure 5. Additive colors of light and the primary values

Among all the words, concepts, and descriptions of value we could think of,

beauty, truth, and goodness stand out as primary for a variety of reasons. Perhaps the most prominent is the abundant *agreement* about the primary status of these three values among both Eastern and Western thinkers, ancient and modern. In the Encyclopedia Britannica's publication of *The Great Ideas, A Syntopicon of Great Books of the Western World*, Mortimer Adler writes:

Truth, goodness, and beauty form a triad of terms which have been discussed together throughout the tradition of western thought. They have been called 'transcendental' on the ground that everything which is in some measure or manner subject to denomination as true or false, good or evil, beautiful, or ugly. But they have also been assigned to special spheres of being or subject matter—the true to thought and logic, the good to action and morals, the beautiful to enjoyment and aesthetics. They have been called 'the three fundamental values' with the implication that the worth of anything can be exhaustively judged by reference to these three standards—and no others.²⁵

In support of his conclusions, Adler cites thinkers from Socrates to Freud who have acknowledged the fundamental significance of beauty, truth, and goodness. And even though beauty, truth, and goodness (and value in general) have been largely rejected in the West by postmodernists, many non-Western thinkers have continued to recognize their primacy. For example, Sri Aurobindo (who did borrow much from the Western tradition), describes three "dynamic images" through which one makes contact with "supreme Reality:" (1) The way of the intellect, or of knowledge—the way of truth; (2) The way of the heart, or of emotion—the way of beauty; and (3) The way of the will, or of action—the way of goodness. In addition to Aurobindo, beauty, truth, and goodness have also been championed by such Eastern notables as Gandhi and Thich Nhat Hanh.²⁶

The degree of substantial and historic consensus that the qualities of beauty, truth, and goodness are metaphysically primary makes it hard to discount the role of certain primary values within the spectrum of dynamic quality. And while consensus evidence is not phenomenological proof, Wilber's postulate of the validity of broad

empiricism suggests that such consensus has some probative value. And so if beauty, truth, and goodness really are the primary values—we must ask the underlying question of why these three? As a preview of the next three sections, my answer is that beauty, truth, and goodness describe the primary directions of evolution in the noosphere. Beauty, truth, and goodness are the essential ways that the human condition can be improved. The arguments for these conclusions are set out below.

The Directions of Evolution

Looking back through the time line of the tree of life, we can see the extraordinary progress of evolution through the ages. The development of the physiosphere and the biosphere provides a remarkable demonstration of the clear directionality of nature's advance. In *Sex, Ecology, Spirituality*, Wilber gathers together, from a wide variety of different sources, the various indicators of evolution's directionality. The result is a mixture of overlapping “directions” that are each described in terms of structure. For example, one direction of evolution is *complexity*, which “emerges from the interpenetration of processes of *differentiation* and *integration*.” And as this complexification increases it results in greater *organizational structure*—complexity produces levels and grades as it advances. Evolutionary development also results in increasing holonic *autonomy*—the higher a holon on the evolutionary scale, the more relatively independent it is within its environment. On top of these various indicators and characteristics of evolutionary development, Wilber also describes the direction of evolution through the “four drives of all holons,” which he identifies as agency, communion, eros and agape (See Figure 2).

And in addition to each of these characterizations of evolutionary progress, every holon is guided by a definite *teleology* that describes the way it is pulled into existence by a kind of pre-existing pattern or purpose. Each holon owes its agency, its intrinsic wholeness value, to its pre-existent attractor, its future potential end point which tends to

pull the holon into actualization. Evolutionary theorist Rupert Sheldrake explains the teleological pull that is “the future’s influence on the present” with the idea of “morphic fields.” A morphic field is a kind of future memory possessed by all members of a holonic category that guides and influences their development. So the theory of teleology is a way of describing the fact that, through all these indicators of directionality, evolution is definitely going somewhere.²⁷

So if we look carefully at the various tendencies of evolution discussed above—the methods by which evolution achieves its teleological purposes—it seems that these trends can be loosely categorized into two basic directions. One front of evolution’s advance can be summarized as the direction of increasing *complexity*—the trend toward more and more complex systems and organisms. The other general direction of evolution is found in the increasing *unity* within the forms themselves. That is, the more complex a system becomes, the more it needs to find ways to hold together its complex parts into an integrated whole. For a system or structure to maintain integrity in the face of greater complexity it must become more unified. In a complex system, each part of the system must work together with a large number of other parts, and together with the whole, in ways that require a significant degree of integration. For example, a squirrel is a more unified system than a starfish. We can cut off the leg of a starfish, and not only will the starfish grow a new leg, but the leg will grow a new starfish. However, if a squirrel is deprived of one of its legs it will almost certainly die from starvation (in its natural environment), if not from the wound itself. This is because mammals, being more complex systems than mollusks, require greater degrees of systemic unity for their existence. The parts of the system are more interdependent—each part is absolutely necessary for the proper functioning of the whole. Thus as evolution advances it becomes more and more developmentally complex, but the extension of this complexity requires the development of increasing unification within the evolutionary forms themselves.

The above-described tendencies of *differentiation*, *communion*, and *eros* can each be understood as aspects of evolution’s *reaching out to encompass more*—its

complexifying drive, its creation of parts. The tendencies of *integration, organizational structure, autonomy, agency, and agape* can each be recognized as the way evolution creates wholes—its unifying pull at the center of every holon. Complexity and unity can thus be understood as the *two legs of evolution*, with teleology representing the overall progress of the “walk.”

But notice that these descriptions of the directions of evolution are derived primarily from the observation of external holons such as organisms, species, and ecosystems. Evolutionary theorists and systems scientists study the external realms of reality, and so their resulting descriptions of evolution are phrased largely in structural “It” terms. However, when it comes to the noosphere, terms like *unity, complexity, and teleology* do not provide a very satisfying description of the evolutionary advance of human culture. To adequately describe the potential ascendant destiny of humanity we must adopt terms that reflect our highest hopes and dreams for the future. This is because in the noosphere, evolution is not only influenced by the complexifying and unifying forces of evolution’s teleology, but also by the subjective wills of the conscious participants. In the realm of noosphere evolution, natural selection is supplemented by *actual selection*. In the unfolding of history, the direction of cultural evolution comes to be increasingly determined by human choices.

A human choice that results in the progress of noosphere evolution is one that *improves the human condition*. The most basic form of this is when individual humans choose to improve their own condition by, for example, making themselves more comfortable, or by increasing their knowledge of their environment. But as noosphere evolution proceeds in humans, individuals come to recognize that their own egocentric condition can also be improved by improving conditions for their family or tribe. As noosphere evolution advances within consciousness from egocentric to ethnocentric to worldcentric perspectives, the goal of improving the human condition embraces a larger and larger whole. Although the dynamic tension between the welfare of the individual and the welfare of the group exists at every stage of development, over time the improvement of one inevitably contributes to the improvement of the other. The tension

between the needs of the individual and the needs of the group gives rise to a continuous dialectic synthesis—a balancing which itself contributes to the overall improvement of the individual and the culture. It is through this dialectical process that the destiny of the individual and the group co-evolve in dependency upon each other. And it is this process of continuous periodic adjustment in focus from agency to communion and back to agency that helps give rise to each successive stage, wave, and level of existence on the spiral of evolution. This progressive dialectic unfolding is seen in the successive vMEMEs charted by Spiral Dynamics. The characteristic focus of each vMEME alternates from individual to group as the spiral is ascended.

Each vMEME acts as a channel of human choices. Each stage on the spiral describes the relatively ideal human condition for the individuals and groups who are at that particular stage of development in time. By defining what and who are valuable at a given level, each vMEME serves to describe the path and the goal of evolution for the individuals and organizations whose center of gravity is in that vMEME. This is why exactly *what* is valuable is *location specific*. That is, what is beautiful, true, or good depends on the particular vMEME from which the assessment is made. But even though exactly what is beautiful, true, or good, is defined specifically (and often conflictingly) by each successive vMEME, the valuation of the *general directions* of the beautiful, the true, and the good is a common feature of each level. In other words, the values of beauty, truth, and goodness act as *compass headings* for the improvement of the human condition, regardless of the assessor's psychic location.

But even though each vMEME has its own version of what is valuable, we can see that the spiral as a whole acts to define the overall trajectory of internal evolution for both the individual and the culture. The dialectic unfolding of each successive value-attracting meta-meme is truly the *tree of life in the noosphere*. We can see the ubiquitous pattern of the biological tree of life as ontogeny recapitulates phylogeny—as the development of the individual exhibits the development of the species in miniature. For example, we can see the biological tree of life in the structure of the human brain and in the development of the human embryo. And we can likewise see the existence of

the “value spiral” described by the Spiral Dynamics theory in its various stages of development within individual human consciousness as well as in the culture at large. But notice that although the value spiral shows what development looks like, it doesn’t fully define what is common to each of the various value assessments along the spiral. The biological tree of life does not, by itself, describe the complexifying and unifying forces of evolution’s directionality, and neither does the value spiral define what these directions might be in the noosphere. The value spiral itself does not show how noosphere evolution achieves its advance. For this we need to look at the *modes of consciousness*.

In *Integral Psychology* Wilber defines (after Habermas) the modes of consciousness as the aesthetic, the scientific, and the moral. These distinct modes are reflected in the essential “value spheres” of modern culture—art, science, and morality. And these modes can be seen to arise from the basic activities of subjective consciousness which are *feeling, thought, and will*. Notice that this threefold pattern *within* consciousness reflects the threefold pattern that *contains* consciousness—“the It, the I, and the We.” As I hope to show, the familiar pattern of “It, I, We” is a systematic arrangement or design that repeats ubiquitously both within each level and across the levels.

Tripartite Evolution

Wilber maintains that all holons “tetra-evolve” simultaneously within each of the four quadrants. And according to Wilber, the four quadrants can be simplified and collapsed into the “Big Three” of “I, We, and It” by counting the objective and interobjective quadrants as one—the realm of “It.” So the idea of *tripartite evolution* (which is simplified tetra-evolution) recognizes that each form upon which evolution acts develops simultaneously within the objective, subjective and intersubjective realms of reality. But this *cross-domain* tripartite evolution is also seen to be acting within the

evolution of each individual domain. (See Figure 6.) For example, within subjective consciousness—within the domain of “I”—feeling, thinking and deciding must evolve together. Although in the lives of individuals one of these modes of consciousness often dominates the others, over-development of any one mode at the expense of the others can deform the personality—the exclusive reliance on one mode of consciousness often stifles development or results in some form of psychological pathology. In the evolution of human consciousness, feelings, thoughts, and will are ultimately interdependent in their development. Similarly, as discussed above, within the objective world of forms—within the realm of “It”—we see a kind of tripartite evolution encompassing complexity, unity and increasing teleology. And within intersubjective culture—within the realm of “We”—we can also see how long-term progress depends on the effective functioning and increasing cooperation among the spheres of art, science, and morality. Indeed

Tripartite Evolution

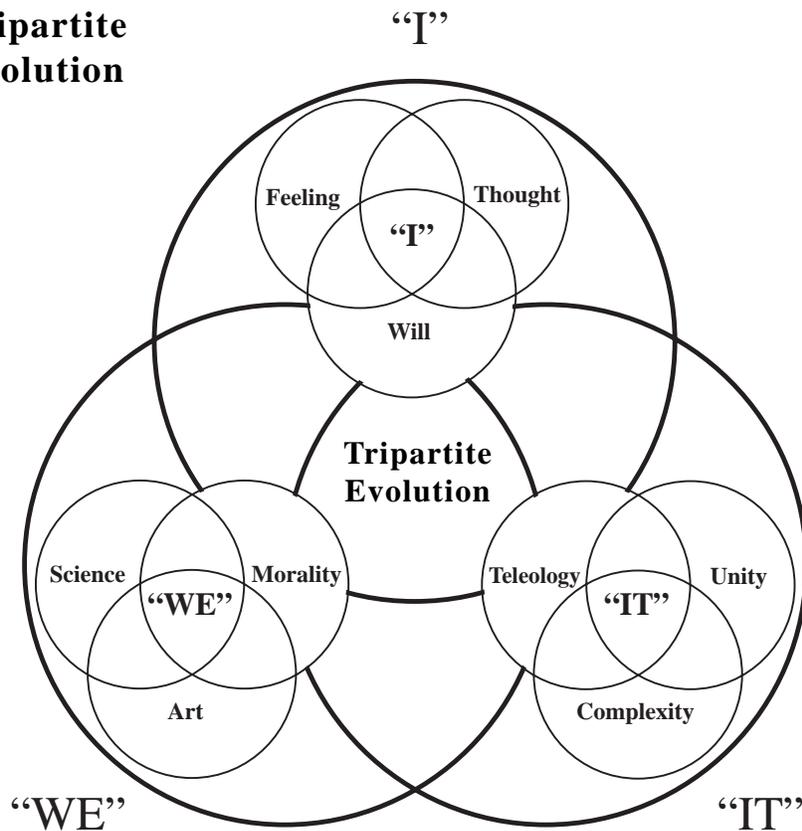


Figure 6. tripartite evolution

curing the pathology that has resulted from the dis-integration of these value spheres is arguably the human race's greatest challenge. That is, it is becoming increasingly clear that the basic human institutions of art, science, and morality must evolve together, each informing the other, if our civilization is to achieve the next level of development.

Thus it appears that within each of the three fundamental domains of evolution—within each of the “It, I, We” levels—there are in turn three fundamental domains of progress. Each domain of evolution itself has three basic spheres that mirror the “It, I, We” pattern in a vaguely holographic reflection of the whole in the parts. And if we examine the common characteristics of each of these trends toward improvement we can begin to discern how progress actually occurs toward each of these “directions” of tripartite evolution, and we can also see how these directional trends interact with each other.

The Perfection Directions

Looking at the common characteristics of evolution as it acts upon the three domains as a whole and also within each domain, we can deduce a basic pattern. It appears that evolution is working through a three-fold influence to pull the universe toward an increasing state of what can best be described as *perfection*. The three directions of tripartite evolution can be understood as phases of perfecting force. That is, if evolution has an omega point—if we can postulate the future exhaustion of evolutionary potentials—the resulting state of completion could be nothing less than perfect. This hypothetical state of perfection can thus be understood as the ultimate morphic field for all forms of evolution. And so this begs the question of what is perfection and how do we know when we are moving in its direction? The answer, I believe, can be glimpsed by recognizing the kinship and association between the various directions of tripartite evolution. That is, as described below, what each category of related directions shown in Figure 6 has in common is how they reflect the general characteristics of the primary values of beauty, truth, and goodness. The primary values

act to describe the common methods and trends of evolution within each of the cross-domain related categories of tripartite evolution. And not only do the primary values describe the directions of improvement, the directions of improvement also act to define the primary values—seeing the primary values in action in the process of tripartite evolution helps to reveal the inner nature and behavior of these illusive forms of spiritual power.

Among the subjective, intersubjective and objective realms of evolution, there seems to be a certain kinship between the spheres of subjective feeling, intersubjective aesthetics, and objective unity. The association of the trend toward increasing unity in the evolution of objective forms with feeling and aesthetics flows partially out of the recognition of unity as an important element in most theories of aesthetics.²⁸ Forms which exhibit the most unity—described by words such as harmony, symmetry, proportion, and self-similarity—are generally those which produce the most pleasurable feelings and which are regarded as most aesthetically valuable. The common feature of improvement within the evolutionary directions of feeling, aesthetics, and unity is the internal drive to make what already exists as good as it can be, the pull that comes from the center of each holon to maximize its agency and its wholeness. Evolution works to create new and better forms, but it also works to make each existing form as complete as possible at its particular stage of development. This “pull from the center” is evolution’s way of revealing relative *actual perfection* within the steps and stages of the overall trend toward increasing relative *potential perfection*. That is, the direction of relative actual perfection is the direction of beauty. The extent to which something is beautiful is the degree to which it is relatively perfect—its evolution can proceed relatively no further. The pleasure we receive from a beauty experience comes from the temporary relief of the *relentless pressure* of evolutionary development. According to Whitehead, “beauty is the final contentment of the Eros of the universe.”

Similarly, we can see a kinship among the directions of improvement within the evolutionary realms of subjective thought, intersubjective science, and objective complexity. Just as the direction of unity is understood as the pull from the center, the

creation of wholes, complexity can be recognized as the pull from the circumference, the creation of parts. Increasing complexity is how the external universe achieves progress toward new and better forms. The direction of complexity reaches out to encompass more—as evolution advances each new form is generally more complex than its predecessor. And within the internal universe subjective thinking and collective science (defined expansively to include all the pursuits of broad empiricism) are likewise striving to know and understand more. Just as in the history of biological evolution, where we can observe an increasing improvement in forms and a striving for greater achievement, we can see within the realm of science and human reason the quest to understand new levels of complexity and detail about the universe. The direction our individual and collective thinking can evolve to encompass more of the Kosmos can be characterized as the *direction of truth*. And the quest for truth (defined in this way) can thus be recognized as the drive to achieve greater relative *potential perfection*. Just as beauty (working within the realms of feelings, aesthetics, and unity) can be understood as the appearance and recognition of what is relatively actually perfect, truth can be expansively understood as the conception and recognition of what can be potentially more perfect. Just as beauty helps to define the present good, truth helps to define the future good as it works within the realms of thinking, science, and increasing complexity. The truth is not only a correct understanding of what's out there, it's also a recognition of how to get there. The “direction of truth”—as it is seen working through the evolutionary expansion of complexity, science, and thinking—can be envisioned as *the way forward*, as the direction toward increasing relative potential perfection—the direction of further and future improvement.

Now I will admit that the characterization of beauty and truth as “directions of improvement” may stretch or distort our common understanding of these terms. But there does seem to be definite and related directions of improvement within the objective, subjective and intersubjective domains of evolution. And the general trend of evolution across the domains does seem to be valuable. So perhaps we need new terms to describe these value directions. However, despite the drawbacks and potential

confusion associated with the terms beauty and truth, I believe that it is better to stretch and expand our understanding of these primary values rather than try to create new descriptive terms.

The value directions described as beauty and truth work together in each domain through the interpenetration of the antithetical forces of unity and complexity, aesthetics and science, and feeling and thinking. And this dynamic interpenetration produces overall synthetic progress in the realms of teleology, morality, and will. Although it may take an exercise of vision logic to see the correlations among these macro trends of evolution, the kinship among teleology, morality, and will can be recognized in the way these concepts are associated, each in its own way, with the idea of the good. Intersubjective morality is practically synonymous with the idea of the good, and the highest function of subjective will is to make the best choice, to discern the good and act on it. And in the external universe, we can see how the progress of evolution's teleology—the overall direction or goal of external evolution as a whole—does work to make things better, that is, more significant.²⁹ Evolution is how the universe makes the finite and limited domain of time and space more perfect and complete. The fact that our planet was once a burning ball of gas, but now supports a cultural world in which conscious beings strive to make the highest moral choices, is an indication that teleology is tending toward the good.

Through the expanded perspective of tripartite evolution we can begin to see how evolution as a whole acts to define the directions of increasing perfection. In the past, an incomplete understanding of evolution led to the pathology of “Darwinian ethics” which claimed that the good was defined merely by the selfish survival needs of the individual. Tripartite evolution, however, joins morality and free will with teleology to show a more complete picture of the trend toward improvement and thus gives new hope for the eventual development of a natural ethics—a physics of value. A fuller understanding of the nature and behavior of tripartite evolution shows how the observable directions of evolution, taken as a whole, can work to define the overall good.

Once we recognize that value (as described in this article) is the most potent form of the noosphere equivalent of energy, we can see how it acts *like energy* to provide both power and light. As power, value is the holon-building sustenance that gives rise to increasingly higher states of consciousness, and more effective relationships and organizations. And as light, value provides the compass headings—it shows the directions of evolution from any noosphere location. Even though each vMEME has its own *octave of value*—its own spectrum of beauty, truth, and goodness—the basic directions of value remain the same in each vMEME. That is, even though what is perceived as beautiful, true, and good expands to encompass greater and greater wholes as the spiral is ascended,³⁰ the pursuit of some version of the beautiful, the true, and the good is common to every level. Regardless of the vMEME location, within the subjective realm of consciousness, the directions of evolution tend toward more pleasurable feelings, truer thoughts, and will choices that consider the welfare of larger and larger communities. Within the intersubjective realm of culture, the directions of evolution tend toward more inspirational art, more accomplished science, and toward a standard of fairness in law, government, and human organizations that is increasingly just and merciful. And within the objective realm of nature, the directions of evolution tend toward systems and organisms that are more unified, more complex, and that increasingly express nature’s teleological goals by containing and supporting greater degrees of consciousness and culture.³¹

Applications of the Theory for Noosphere Evolution

At this point I should restate the thesis of this article for purposes of orientation: The principal holons of the intersubjective noosphere are human relationships which, like all holons, are self-organizing dynamic systems that use the spectrum of information, meaning, and value to create order in themselves and their environment. Understanding the underlying structures and habits of the intersubjective realm of

evolution leads to increased health and functionality in human relationships and culture. Therefore, the application of this theory is for the improvement of the human condition by increasing the effectiveness of the “science” of the interior dimensions of the noosphere. (And again, I am defining science broadly to include all the truth pursuits subject to broad empiricism.)

At the dawn of the Enlightenment the “frontier of human suffering” was physical disease. The average life expectancy of a European born in 1700 was less than forty years, and the infant and child mortality rates were tragically high. The alleviation of much of this suffering was achieved by the gradually developing science of the Enlightenment. The science of biology (especially after its fortification by the theory of evolution) discovered the holonic details of the body which produced breakthroughs in the effectiveness of medicine. The discovery of the cell and its functions, the insight into the microbial nature of disease, and the discovery of the role of genes in human biology, all served to make the population of the West healthier and longer-lived. The development of modern medicine is one of the primary fruits of Enlightenment science.

But no matter how far it grows in sophistication and technique, modern medicine comes back to the simple truth that biological health and wellness are produced primarily by the proper combination of nourishment and exercise. And medicine is also increasingly coming to understand how much a healthy emotional environment contributes to physical health. A healthy body depends on a healthy psyche, which, as I am arguing here, depends on the “health” of one’s intersubjective relationships. When we begin to understand the influence of the objective biology of the body on one side of consciousness, and the intersubjective “noology” of relationships on the other side, we can make real progress in the evolution of consciousness and culture. Indeed the current frontier of human suffering (in the postmodern world) is dysfunction—dysfunction in the family, dysfunction in business, government, and educational organizations, and dysfunction within the dominant vMEMEs of our culture (such as the “mean green meme”).

Spiral Dynamics shows great promise in the recognition of the source of much

of the world's "value poverty,"³² but its application is limited because it doesn't reach all the way down to the "cellular level" (the value agreement level) of the dysfunction it identifies. However, when we come to understand that vMEMEs are part of a holarchy made up of agreements, relationships, and organizations—and when we see how values work as energy to give rise to this holarchy—we can begin to interact with consciousness and culture so as to produce transformative results.

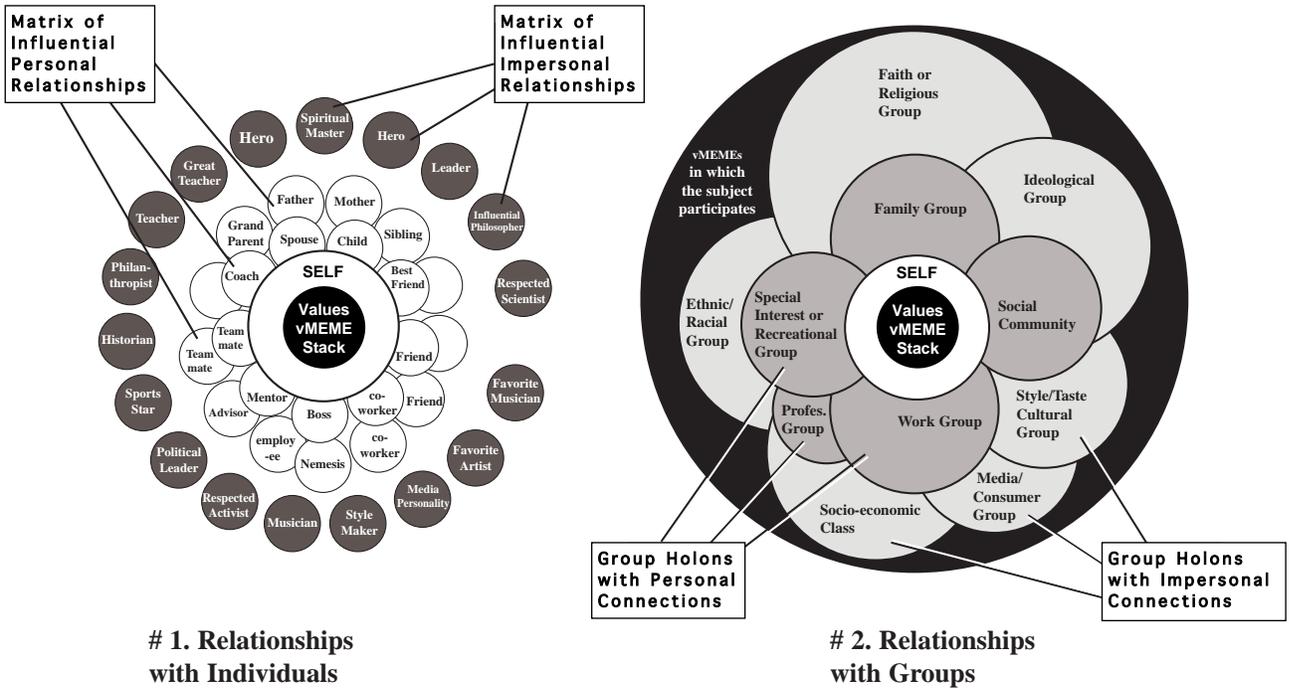
The health and development of one's intersubjective quadrant (their noological identity) is achieved through the proper nourishment and exercise of value—psychic health depends on our metabolism of beauty, truth, and goodness, and all the shades of value that emerge from these primaries. And this understanding can be applied to create greater functionality and health in individual consciousness, in human relationships, and in human organizations. We will look at each of these areas in turn.

Value Nourishment and the Relationship Matrix

It is possible through interviews or tests to determine a person's overall relationship matrix—that is, the personal and impersonal relationships with individuals and groups which have had and are having the biggest influence on a person's life. (See Figure 7.) This list might include a person's children, parents, friends, siblings, work associates, and other people whom they value. The list would also include their favorite musicians and artists, authors of books that have influenced them, heroes and role models living or dead whom they look up to, and probably a spiritual master or masters. Beyond the personal and impersonal relationships with individuals in the matrix, we would also find relationships with groups and organizations. (This is the subject of the section after next.)

Once the significant relationships in the matrix were identified, we could see which of the relationships were strong and well defined, and which were vague and distant. The relative vitality of the relationships in the matrix could be determined by

Simplified Chart of a Hypothetical Individual's Relationship Matrix



#3. Overlay of Intersubjective Relationships with Individuals, Groups, and other Contextual Influences

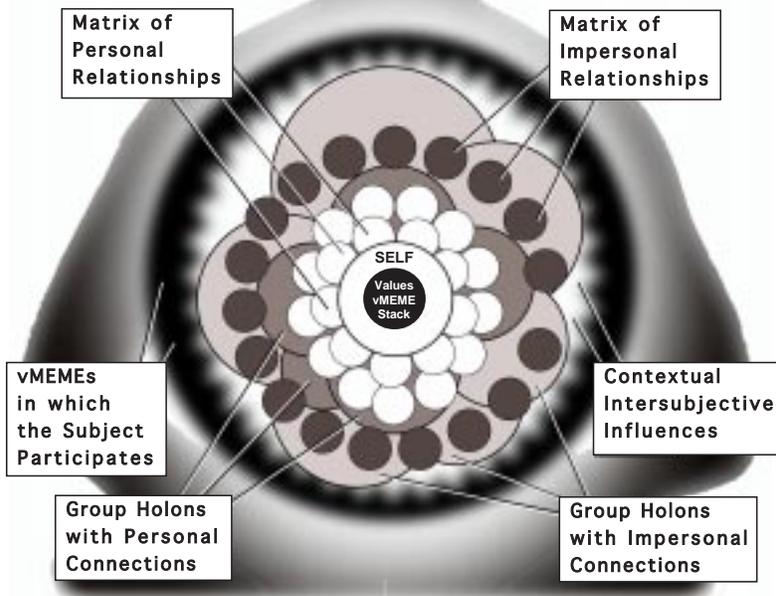


Figure 7. The relationship matrix of a hypothetical individual

reference to the time and attention a person gave to the relationship.³³ We could also see if any critical personal or impersonal relationships were missing from the matrix. This is not to suggest that there is any one form of ideal relationship matrix, but if, for example, a person never had a father figure in their life, this is probably having an effect on them currently. Similarly, if there are no artists or musicians in a person's matrix, they may be lacking the critical nourishment of beauty in their life.

So with a person's relationship matrix in hand, we can make contact with them *where they are*³⁴ and begin the process of development from there. The value metabolism within a person's relationship matrix can be gradually developed by adding new personal and impersonal relationships with individuals whose center of gravity is slightly higher on the spiral. We can also improve the matrix by strengthening existing relationships that might be weak. For example, if a person's relationship matrix reveals that one of their heroes is Winston Churchill, it may be the case that they really *use* Churchill as a role model, but they have never actually read a biography of the man. So whereas before they may have valued Churchill because of his strength of will and fearlessness, once they have read his biography and know the details of his life, they can use the value of that relationship with much greater effect. When they are in a situation that calls for the value of fearlessness, they can remember the details of what Winston Churchill actually said and did in a similar situation. And then perhaps when they come to more fully appreciate Churchill, they will be ready to begin an impersonal relationship with someone even more fearless, like Gandhi for instance, and thus move up the spiral of development.

As another example of the nourishment of an individual relationship, take the case mentioned above of a person who never had a father figure. We may not be able to replace or even satisfactorily substitute this person's missing father, but we can encourage them to notice and value the fatherly qualities of their friends, as well as other men whom they know (either personally or impersonally) who may exemplify what it is to be a good man. The values that usually flow in a healthy relationship between a father and a son can be identified and channeled into this person's

consciousness in other ways. A person can receive some of the missing nourishment of a father's love and leadership by valuing these traits through other relationships.

Alternatively, suppose a person has instead had a falling out with their father because of a significant value disagreement (like a typical conflict between orange and green memes). By examining the *real value* of what this person's father actually does value (by recognizing the evolutionary appropriateness of healthy orange meme values), the person may be able to heal and strengthen the underlying broken value agreements by becoming understandingly sympathetic to the differing life conditions that gave rise to their father's values. An analysis of broken value agreements (or other kinds of disagreements) would not only focus on the different perceived life conditions affecting the parties, it would also uncover and emphasize the common values that these individuals share. By enlarging the perspective (raising the consciousness) of both parties, a relationship could be healed through a kind of "value therapy." This is somewhat obvious, and is already being done intuitively in many kinds of therapy. But the understanding of the role of value as energy can better direct the process. Defining the interior "location of the wound"—the broken or malnourished agreement—allows the therapist to "put ice on it" and increase the circulation of value energy to the appropriate area. Instead of just working on the subjective psyche, a therapist can also work (in a distinctly post-Freudian, integral manner) on the intersubjective relationships that are "holding up the psyche."

Within the matrix of intersubjective relationships that define a person's noosphere identity, there usually exists a system of value exchange *between* the personal and impersonal relationships that comprise the matrix. For example, a person's relationships with their family and friends are nourished as they share what they love and admire about the artists, teachers, and heroes whom they value—this is one way that values are transmitted from parents to children. Friendships are often based on the mutual appreciation of some shared impersonal relationships. Indeed, as described above, each vMEME is held together by the impersonal relationships created by the leaders, teachers, and artists (both living and dead) who represent the values of that

particular vMEME.

Spiritual Nutrition and the Circuit of Value

It is through the process of sharing values that the circuit of value (behaving similar to energy) is opened to the flow that contributes to the development of subjective consciousness—the relationship matrix nourishes the “I” with “We” nutrition, just as the body nourishes the “I” with “It” nutrition. Physical health requires nutrition and exercise, and likewise must values be given as well as received for the health of consciousness. “Value exercise” can include giving of one’s self by expressing beauty, teaching or demonstrating truth, or through any other means that a person can be of service to their fellows. If we look at a person’s relationship matrix and there is no one who is being served, this could be an area ripe for development.

Behaving like forms of energy, the primary values (and all forms of value for that matter) naturally flow into and out of consciousness in a circuit—values are alive, free, thrilling, and always moving—they can’t be made static or absolute, they are always relative because they are always working to move consciousness into increasingly advanced states. As illustrated in Figure 8, our ability to experience and receive value nutrition is linked with our direct or indirect sharing or expression of it. Our ability to perceive beauty—to really see it in the world—is partially dependent on our ability to use it. Beauty flows in a circuit of appreciation and expression. For example, if an artist wants to paint a beautiful sunset they begin to look more closely and carefully at the details that make sunsets beautiful, and then they can use those details for their own expression of a sunset. This process also works in reverse: often an artist will become inspired by the experience of some external object of beauty and then be moved to use this inspiration by translating it into an original work of their own. The hand develops the eye as the circuit of aesthetic experience is taken up as a practice.

Truth is likewise perceived through the circuit of learning and teaching. In a

sense, truth is never fully learned until it has been taught or lived out. When we teach truth we learn it at a new level by internalizing it. When we have a vivid truth experience—when we learn something of real value that we are enthusiastic about—it fills us with a desire to relate this truth to someone else. A genuine learning experience carries with it the energy and the motivation to teach or apply the value of the lesson.

Like the practice of truth and beauty, the practice of goodness can also be understood through the giving and receiving rhythm that is the essence of its experience. Goodness is transmitted—it is expressed or taught—in the form of *service*. Service is a way of communicating goodness to another person. Goodness actually helps to define truth and beauty through the test of their service value—what they are “good for.” Real truth is something we can live and use to improve our lives. And even the rarefied beauty of fine art provides the service of pleasure and inspiration. But the idea of “a service of goodness” embraces all acts of kindness and consideration—all the ways that one human being can give to another. Conversely, the act of receiving goodness can be understood as a form of contemplation or worship. Worship or contemplation, as the experience of goodness, is understood in the context of learning truth and appreciating beauty. That is, from a spiritual perspective, to appreciate beauty or realize truth is a way of communing with the divine.

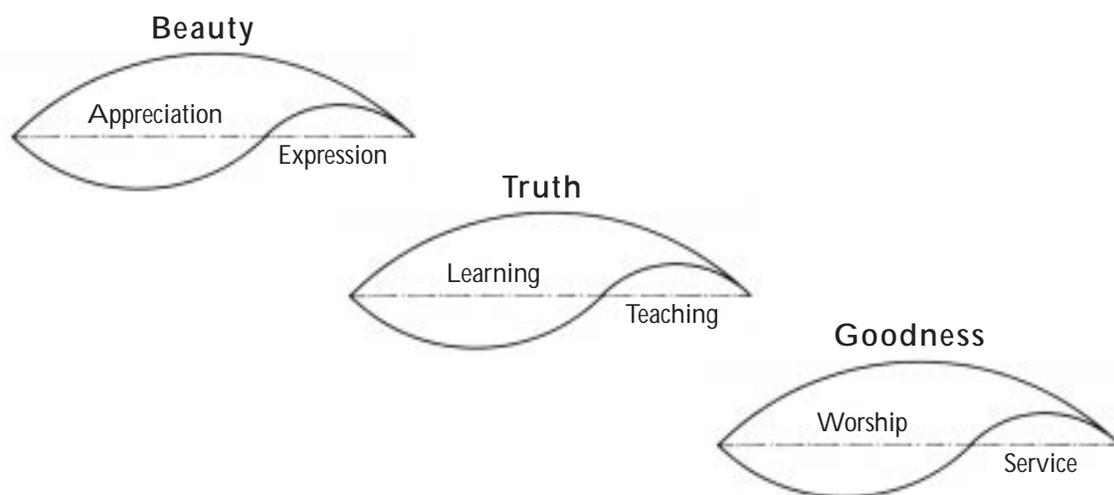


Figure 8. Circuits of beauty, truth and goodness

Notice how the natural flow of these values creates and strengthens human relationships in the process of being shared in their circuit of experience. This is how relationships “reproduce” themselves in a manner akin to the evolutionary function of reproduction in biological organisms.

The practice of beauty, truth, and goodness is the “yoga of idealism”—the increasing metabolization of these forms of spiritual nutrition in consciousness and culture will lead to the development of a more integral society in the interobjective realm. Just as we now identify our current phase of techno-economic production as the “information age,” in the future I believe we will see the emergence of a “value economy” in which the principle substance of exchange will be expressions of beauty, teachings of truth, and services of goodness. And in this future “value age” each person’s career will be understood as the “giving of their gift” to the world.

Value Metabolism and Human Organizations

As illustrated in Figure 7, a person’s relationship matrix is comprised of relationships with groups as well as with individuals. Notice in the illustration of this hypothetical person’s relationship matrix that the categories of groups to which this person relates reflect the personal and impersonal pattern that appears in their relationships with individuals. That is, with some groups, such as our family, work group, or community of friends, we have a direct personal connection with the identity of the group—just as with our personal relationships with individuals, we directly influence these groups through our participation. With other groups, such as our religious group, socio-economic class, or ethnic group, our influence is usually more anonymous or indirect—just as with our impersonal relationships with individuals, these groups affect us far more than we affect them. When looking at the groups illustrated in

Figure 7, however, please keep in mind that this is a highly simplified chart of a hypothetical person's matrix of relationships with individuals and groups. Although this illustration shows that beyond a person's individual and group relationships, there are also contextual intersubjective influences, as well as the influences of the larger cultural vMEMEs, Figure 7 is not intended to illustrate all the potential levels of an intersubjective holarchy.³⁵

Human groups and organizations are social holons consisting basically of three parts: individual holons (the people who are members of the group), artifacts (the structures and externally imposed design of the organization), and relationships (the junior social holons that make up the group). And the types of relationships that comprise the subholons of human groups are also threefold: the relationships between the members of the group, the relationships between the group members and the outsiders with whom they interact, and the relationships that both of these sets of individuals have with the group itself. In other words, not only do I have a relationship with each person in my family and with each person in my company, I also have a kind of relationship with my family as a whole and with my company as a whole—I have a relationship with the agency-identity of each of these group holons.

Just like individuals, human organizations have relationship matrixes and “vMEME stacks.” That is, because most groups include members whose center of gravity is at a variety of vMEME levels, the group must relate to each of these members at their specific vMEME location. For example, a family might include relationships with purple meme children, green meme parents, and blue meme grandparents. Similarly, the group holon of a business may consist of relationships among yellow meme management, orange meme sales people, blue meme administrators, etc. Because most groups are made up of individuals with various levels of consciousness, the best leadership is provided by individuals with second-tier consciousness who are characteristically sympathetic to the foundational necessity of all vMEME levels.

It is through a group's various relationships that it is nourished with all the forms

of energy that sustain its organization. We are all familiar with the flows of physical energy metabolized by a group—“cash flow,” for example, is a vital form of energy circulation required by most organizations. Indeed, the field of accounting has developed a variety of ways of measuring the physical energy metabolism of an organization with instruments such as income statements and balance sheets. But it is becoming increasingly obvious (especially in the business world) that the vitality of an organization depends not only on physical energy, but also on its metabolism of the noological energy-equivalent of information, meaning, and value.³⁶ In the spectrum of noosphere nourishment, the pseudo-physical input of information acts as a bridge between the more physical forms of energy (such as money) and the more spiritual forms of noosphere power (such as value). The communication of appropriate information is a critical “circulatory system” in every organization. We can recognize the circulation of value within an organization as participation in the group fulfills the higher needs of its members such as belonging, self-esteem, and self-actualization. And the more a group creates value (through services of goodness) the more the members of the group are themselves nourished with the energy-like substance of value.

Positive group morale or team spirit depends not only on the vitality of the relationships that comprise the organization, but also on the vitality of the relationships that the group itself has with its constituents. Through an awareness of both the circulatory quality of value, and the holarchy of relationships through which these values flow, the leaders of any organization can work to strengthen and encourage the group's holonic agency by increasing the communion of its members. That is, by strengthening the relationships among group members and by emphasizing the identity of the group as a whole, leaders can increase the commitment of the members to the group. For example, loyalty to a group's identity can be nurtured by emphasizing a group's history—coaches of sports teams often refer to the team's auspicious legacy to motivate the players. Similarly, group agency can be developed and strengthened through an emotional articulation of the group's goal—a powerful “rallying cry” can often forge commitment to a group or cause.

And a group's mission and strategic plan can also act as a source of value nourishment. The leaders of a group can make its mission statement *live* by translating its value message into terms most appropriate for each of the vMEMEs of the organization's members. That is, not only can a group have multiple goals, it can have multiple articulations of those goals tailored to the consciousness of each of its members. Even though each vMEME has its own spectrum of value, the general *directions* of what is valuable are common to every participant, regardless of their psychic location. Thus, even though a group's "orange meme mission" may be stated in different terms than its "green meme mission," the overall direction of the group's intended progress can be recognized from every level on the spiral.

I believe that in the future, the *technology* of group mission statements will evolve so that the values of the mission are made vivid at every opportunity. And I believe that integral leaders will increasingly come to recognize both the complexifying and unifying directions of evolution by emphasizing in their missions not only the future goals of the group, but also the present value of the group as it is. Indeed, integral organizations need integral mission statements—mission statements that vividly express the physical goals of the group, the meaning of the group's existence, and the ultimate spiritual value of the services it provides. And these values can be subtly woven into all the various forms of communication that give rise to the relationships that comprise the anatomy of the group.

A proper treatment of the subject of values and human organizations is beyond the scope of this article. We have here only touched on some of the ways that an understanding of value as the equivalent of energy can be applied to the improvement of group health. But before concluding, I have a few more observations about value and second-tier consciousness.

Value Metabolism and Second-Tier Consciousness

Value agreements and relationships define our identity and *location* in the intersubjective realm. And most people identify themselves partially by defining who they are not. The typical relationship matrix, if charted with accuracy, will reveal one or more people that the subject of the chart doesn't like. Value *disagreements* can work to form significant intersubjective relationships in the same way that agreements about common values form more positive relationships. Because each of the first-tier vMEMEs arise partially in reaction to the pathologies of the previous vMEME on the spiral, people whose center of gravity is within first-tier consciousness often give their attention to "negative others." That is, each of the first-tier vMEMEs includes a list of people and groups *not to value*. For example, in red meme consciousness the enemy is everywhere—"the world is a jungle full of threats and predators." In the blue meme, the enemies are the sinners and infidels who don't ascribe to the mythic order. In orange, there is a strong sense of rivalry with competitors, the object is to beat the other guy. And in the green meme, the enemies of the community are the patriarchal oppressors whose egocentric worldviews marginalize people and the planet.

But in second-tier consciousness, one becomes aware of the different life conditions that effect each of the levels of the spiral in the first-tier. The yellow and turquoise memes become sympathetic to the problems encountered by the lower memes and they begin to understand why these first-tier groups value as they do. Instead of vilifying the fundamentalists (as is common in the green meme), persons with second-tier awareness will see the strength of the love and loyalty possessed by the adherents of the blue meme. The second-tier will understand that the stability and order that comes with blue meme consciousness is more evolved than the chaos of red, and for those operating at a healthy level of blue, this may be the best they can do. "Second-tier thinking appreciates the necessary role that all of the various vMEMEs play."

Because each of the vMEMEs in the second-tier are a recapitulation of the essential nature of their corresponding first-tier counterparts (yellow is "beige prime",

turquoise is “purple prime,” etc.), the healthy aspects of these first-tier worldviews are reborn at a higher octave. For example, the consciousness of “blue prime” (whatever color that turns out to be) will take heart from the clarity and certainty of first-tier blue’s charming faith. Even though those with “blue prime meme” consciousness will not live in a “black and white world,” like first-tier blue, they may model some of their behaviors after the healthy versions of first-tier blue meme values, only at a higher level of consciousness. As second-tier levels of consciousness arise, each of the first-tier vMEMEs will act as simplistic value models that can be used and interpreted by those in the second-tier.

Second-tier consciousness achieves its evolutionary advance partially by being able to metabolize all the values of the first-tier spiral. Just as the highest forms of biological organisms are often omnivores, people with highly evolved consciousness become *omnivaluers*. This doesn’t mean that second-tier thinking values everything equally (a pathology of the green meme), but rather that it places some value on everyone and every worldview in the spiral. People whose center of gravity is within the second-tier are able to effectively use the appropriate reactions for all life conditions that have evolved over the millennia. For example, when the life conditions call for purple meme bonding rituals, second-tier consciousness can embrace this. Or when the life conditions call for orange meme individualistic competition, a second-tier perspective recognizes how this can be appropriate even within a worldcentric value system.

Conclusion

Our civilization is struggling to hatch out of the egg shell of a previous age of fragmentation and confusion. The institutions of our society are straining against the straitjackets of scientific materialism and postmodern reductionism which both deny the significance of one of the most fundamental aspects of reality—values. Values have

traditionally been the province of religion, whereas science has concerned itself primarily with facts. But if we can achieve a “scientific” understanding of the nature and behavior of values, we can make significant progress in the greatest challenge of our age—the integration of science and religion.

In this article I have tried to carry forward what Ken Wilber has begun. I have tried to advance the integral endeavor by applying Wilber’s new theory of evolution to provide an understanding of how value acts as the energizing sustenance of consciousness and culture. By identifying human relationships as the “organisms of the noosphere,” I have tried to show how relationships nourish consciousness with value nutrition. And I have examined the energy-like qualities of beauty, truth, and goodness and shown how these primary values act as descriptions of the directions of evolution in the noosphere.

If this new theory of value nutrition is accepted, it will serve as an additional stone in the foundation of integral understanding. And the development of an integral understanding will provide what our civilization needs most: a science of spirit based on truth claims validated through the methods of broad empiricism. Such a science will do much to heal the dysfunction that plagues our culture. But this new perspective will do more than fix what’s broken, it will promote the growth of whole new aspects of society—integral institutions motivated and energized by the vivid vision that not only is increasing perfection of consciousness and culture possible, it is our evolutionary destiny.

Noosphere Evolution and Value Energy End Notes

¹ The term “noosphere” was coined by Pierre Teilhard de Chardin in his landmark book, *The Phenomenon of Man* (Harper & Row 1955). *Noos*, from the Greek for *mind*, is used to denote the “thinking layer” of evolution—the sphere of human consciousness and culture which has come to envelop the earth, just as the biosphere evolved to envelop the underlying physiosphere.

² Technically, every holon is simultaneously objective, subjective, and intersubjective. However, most holons have a center of gravity that can be identified primarily with one of these domains. Therefore, in this article I will refer to “intersubjective holons” with the acknowledgement that such holons are not exclusively intersubjective, they are just primarily identified with the intersubjective level.

³ E. O. Wilson, *Consilience: The Unity of Knowledge*, (Random House 1998) p. 146-148.

⁴ Quoted from the article by L. Gabora, *The Origin and Evolution of Culture and Creativity*, printed in *Journal of Memetics—Evolutionary Models of Information Transmission*, Volume 1, No. 1, (1997), http://www.cpm.mmu.ac.uk/jom-emit/vol1/gabora_1.html.

⁵ *A Theory of Everything*, p. 147.

⁶ C. Graves, “Summary Statement: The Emergent, Cyclical, Double Helix Model of the Adult Biopsychosocial System,” Boston, May 20, 1981.

⁷ Discussing the difference between individual holons, social holons, artifacts, and heaps, Wilber says:
“Individual holons are holons with a subjective interior (prehension, awareness, consciousness); they have a defining pattern (code, agency, regime) that emerges spontaneously from within (autopoietic); and they have four drives (agency, communion, eros, agape). Examples of individual holons (or compound individuals) include quarks, atoms, molecules, cells, organisms. ...

Social holons emerge when individual holons commune; they also have a defining pattern (agency or regime), but they do not have a subjective consciousness; instead, they have distributed or intersubjective consciousness. Examples include galaxies, planets, crystals, ecosystems, families, tribes, communities. ... Both individual and social are holons, and they both follow the twenty tenets. ...

Now, artifacts are any products made by an individual or social holon. A bird's nest, an anthill, an automobile, a house, a piece of clothing, an airplane, the internet--these are all artifacts. An artifact's defining pattern does not come from itself, but rather is imposed or imprinted on it by the agency or intelligence of an individual or social holon. ...

A heap is just a random pile. A pile of sand, a water puddle, a bunch of dead leaves--these are heaps. They have no interior consciousness, they do not follow the twenty tenets, and they have no enduring, defining pattern. And they are not artifacts, because they are not the product of individual or social agency or intelligence.” Quoted from: *On Critics, Integral Institute, My Recent Writing, and Other Matters of Little Consequence: A Shambhala Interview with Ken Wilber*. January, 2001, <http://wilber.shambhala.com>.

⁸ K. Wilber, *Sex, Ecology, Spirituality, Collected Works*, p. 40.

⁹ *A Theory of Everything*, p. 50.

¹⁰ See the two charts of the four quadrants in *A Theory of Everything*, p. 43 and p. 70.

¹¹ Quoted from K. Wilber, *Do Critics Misrepresent My Position?*, A Test Case from a Recent Academic Journal, unpublished manuscript of 2001, p. 4.

¹² *Sex, Ecology, Spirituality, Collected Works*, p. 560, note 46

¹³ This quote is from Wilber's e-mail post of September 17, 2000, on the Shambhala Publications website's *Ken Wilber Author's Forum*, <http://forums.shambhala.com>.

¹⁴ As a technical point, I must acknowledge that, as far as I understand it, physiosphere holons such as stable atoms are not recognized by mainstream science as "energy exchange systems." While complex molecules, such as water, exchange heat, atoms maintain their autopoiesis without a detectable exchange of energy. However, the energy of atomic cohesive integrity is certainly substantial, and as our understanding of the holonic nature of reality increases, perhaps atoms will come to be recognized as dynamic systems. For now, I will rely on the substantial evidence of energy exchange in biosphere holons to provide ample support of my claim for the existence of the energy exchange feature of evolution in the noosphere.

¹⁵ E. Laszlo, *The Systems View of the World: A Holistic Vision for our Time*, (Hampton Press, Inc. 1996), p. 73.

¹⁶ This quote is from K. Wilber, *Sex, Ecology, Spirituality, Collected Works*, p. 133. Meaning, of course, is a "complex self-referential system that [is] profoundly context-dependent." And it is meaning's dependence on context that shows its "location" in the interior domains. That is, because meaning is bound up within the context of its language and culture as a whole, its very substance is determined by its use within the holon that is metabolizing its "energy." As agreements and relationships form through the communication of meaning, they co-create the meaning itself by using it.

¹⁷ See K. Wilber, *Integral Psychology*, (Shambhala 1999) p. 166. According to linguist Saussure, a linguistic "sign" is a system composed of a signifier (a word) and a signified (what comes to mind). In discussing the work of Saussure, Wilber recognizes that "every sign is a holon ..."

¹⁸ Values such as beauty can be perceived within information and meaning, or within information alone. While value is usually perceived nested inside meaning, it does not always depend on the presence of meaning for its perception.

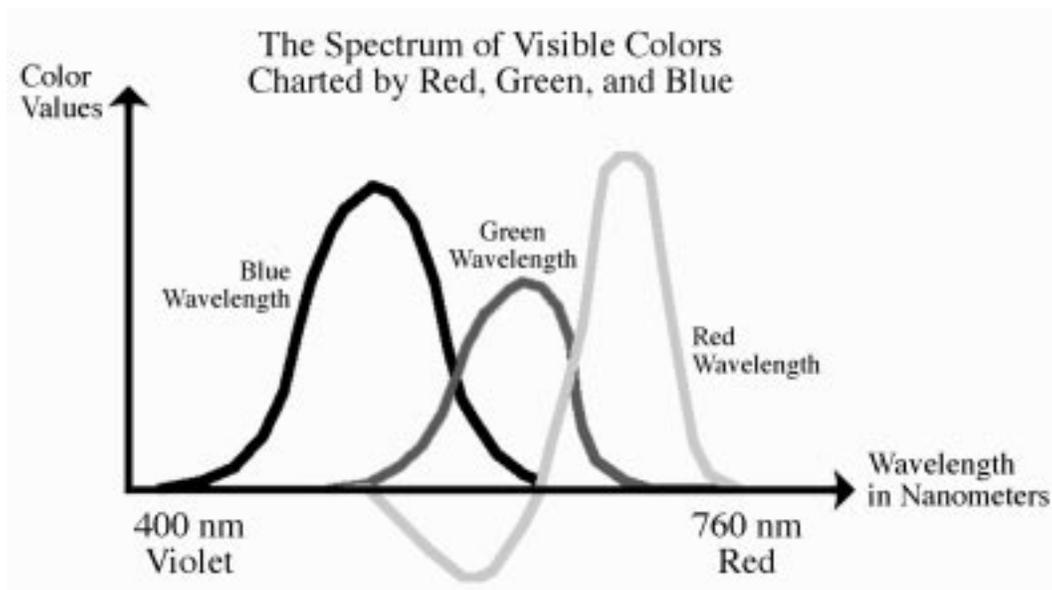
¹⁹ This quote is a lyric from *Song For Bob Dylan* by David Bowie. The song appears on the album *Hunky Dory* (1971).

²⁰ Quoted from K. Wilber, *Boomeritis: The Extraordinary Emergence of an Integral Culture and Its Many Obstacles*, unpublished manuscript of 1999, Chapter 6 *The Mean Green Meme*, p. 25.

²¹ Even though some truths and some aspects of beauty (such as a rainbow) almost *compel* agreement about their value, for the most part, values require a subjective choice by the person perceiving the value—to be values they must be valued. The requirement of a participative choice (either tacit or express) by the evaluator suggests that the *will* may actually be the *organ of perception* for values. If this is true, it may help explain the upper limits of artificial intelligence. That is, machine intelligence can process information, and some of the lower levels of meaning, but when it comes to assessments of qualitative value, the lack of "free will choice" in such artifacts may render them unable to make true value judgements.

²² It seems that the visible spectrum of white light is a particularly fruitful area of study in the quest for universe understanding. Many of the fundamental discoveries of physics, including those of Newton and Einstein, for example, have been made through an investigation of light. Indeed, in his later years Einstein wrote that he wanted to spend the rest of his time on earth studying the behaviors of light.

²³ Primary colors are simply those that cannot be mixed from other colors. In paint pigment these colors are red, yellow, and blue. But in printing inks the “non-mixable” colors are magenta, yellow, and cyan. On television and computer screens the visible spectrum of color is represented through a combination of red, green, and blue. Three colors can approximately represent the visible spectrum because of the structure of the human eye. The human eye is made of an optic system that focuses light on the retina, the photo-receptive part of the eye. The retina is made of cones and sticks. Sticks are more receptive of contours and contrasts, while cones are more receptive of colors. In fact, there are three types of cones, with three different color responses, and these color responses are combined together by the brain. However, although the various versions of primary colors can be mixed to approximately represent the visible spectrum of color, all visible color cannot be completely portrayed by three primaries. The chart below shows the amount of red, green and blue required to represent all the pure colors. For each pure color, defined by its wavelength, the chart shows the amount of red, green and blue needed to represent this color. The result is expressed by the three curves, below:



The problem is evident: there are some colors where we need a negative amount of red. In other words, there are colors that can never be made with just a mixture of red, green and blue (but are still perfectly visible colors nevertheless). But perhaps this subtle “problem” with the physics of color reveals even more about the physics of value than the simplistic model of three primaries. Perhaps in the requirement of “a negative amount of red” we can see an analogy suggesting that, within the value spectrum, the “wavelength” of truth can only be fully expressed by the addition of a certain amount of ugliness, that is, “a negative amount of beauty.”

²⁴ See H. Hardin *Color for Philosophers* (Hackett 1993)

²⁵ M. Adler *The Great Ideas, A Syntopicon of Great Books of the Western World* (Encyclopedia Britannica Publishers 1980), Volume 2, p. 275.

²⁶ See *Dharma Talk* given by Thich Nhat Hanh on November 20, 1997 in Plum Village, France, <http://www.plumvillage.org>. See also, Gandhi's interview with J. K. Mohana Rao in *Today's Beautiful Gem: Part II of 'Gandhi on Truth and Beauty'* from *Young India*, found on: <http://newage.about.com/religion/newage>.

²⁷ Because evolution has definite directions of development, it is possible for this development to get stuck, or for the development to proceed off-track. This underscores how the developmental direction of evolution defines what is "more valuable"—that is, more significant. And how pathologies in any system can be judged (and thus hopefully remedied) with reference to the more complete holonic forms to which the system in question belongs. We can discover sickness in one individual with reference to the relative health of another individual who is at an equal level of depth and complexity.

²⁸ One of the oldest definitions of beauty, and one that still holds sway in modern aesthetic theory, is Thomas Aquinas' description of beauty as "*unity, proportion, and clarity*." Moreover, a recent Newsweek cover story (*The Biology of Beauty*, June 3, 1996) described a growing body of scientific research that shows that in both animals and humans *symmetry* (a species of unity) is an important measure of the attractiveness of members of the opposite sex. In the contextualist theory of aesthetics, beauty is understood as a quality which arises from the unity of the whole event or object—aesthetic value is recognized where the qualities of the parts are fused into the quality of the whole. Similarly, in the organistic theory of aesthetics, a work is judged by the degree that it exhibits an integration of every detail into the totality of the larger composition, rendering every element absolutely necessary to the whole (just as each organ in the body of an animal is necessary for the body's function). Each part is thus endowed with a purpose that is created and satisfied entirely within the context of the work. No part fills a purpose other than internal integration. The parts balance within the whole. In organistic aesthetic theory, the absence of superfluous parts also functions as a standard of aesthetic value. It was Michelangelo who first said "beauty is the absence of superfluity."

²⁹ In *Sex, Ecology, Spirituality, Collected Works*, p. 544 -545, Wilber distinguishes between holons that are "fundamental" and holons that are "significant". For example, in the biosphere bacteria are more fundamental and dolphins are more significant. Lower holonic levels are valuable because they are necessary for the higher levels, and higher levels are valuable because they have greater holonic depth. We can thus recognize that dolphins are more significant than bacteria, even though dolphins rely on the fundamental foundation level of bacteria for their existence.

³⁰ As the vMEMEs are ascended, the scope of beauty, truth, and goodness expands. Increasing goodness or morality can be recognized as egocentric red is transcended by ethnocentric blue which is in turn transcended by worldcentric green and yellow. Increasing truth results as the superstitious worldview of purple is replaced by the mythic order of blue, which is superceded by the "flatland" science of orange, which is itself transcended in the integral embrace of yellow's recognition of valid truth claims in each realm of human experience. And from a second-tier perspective, beauty can be seen in the art and culture of each vMEME level.

³¹ So if we can see how beauty, truth, and goodness act to generally define what is common among each of the *evolutionary parts*—beauty defining the common direction of improvement among unity, aesthetics and feeling; truth defining the common direction of improvement among complexity, science and thought; and goodness defining the common direction of improvement among teleology, morality and will—it is natural to ask whether the individual primary values can also be generally associated with each of the

evolutionary wholes. That is, can we map the beautiful, the true, and the good, respectively, onto the evolutionary domains of “the It, the I, and the We?” Wilber associates the beautiful, the true, and the good with each of the value spheres of art, science, and morality respectively. And then he goes on to assign the value of truth primarily to the objective realm of “It,” the value of beauty primarily to the subjective realm of “I,” and the value of the good primarily to the intersubjective realm of “We.” While I agree with Wilber’s designation of the good as the guiding light or “perfecting force” within the value sphere of morality and the intersubjective quadrant, I question the association of the beautiful primarily with the subjective quadrant of “I,” and the association of the true primarily with the objective quadrants of “It.” Although all three of these values (as spiritual energy) are working within each of the domains of “It, I, and We,” when it comes to the beautiful and the true, it seems to me that these values can just as easily be associated with the opposite quadrants—the true with the subjective realm of mind and the beautiful with the objective realm of matter. Consider these arguments:

Wilber admits that beauty is not “merely subjective,” but he concludes that because beauty is (in part) “in the eye of the beholder” its understanding belongs primarily in the subjective domain (See K. Wilber, *The Marriage of Sense and Soul*, Random House 1998, p. 49-50). But think about it, among beauty, truth, and goodness, beauty is the *most objective*—beauty is the only one of these values that can actually be seen or heard. Although each of the primary values requires a *subjective agreement* to be perceived (to be values, they must be valued), beauty is the one that most requires an objective sensation from the external realm of “It.” Beauty is a value that generally describes the most highly evolved aspects of the material and biological world. The question: “Is such and such beautiful?” refers to an object or external expression of some “It.”

Similarly, I question the assignment of the true primarily to the objective realm of “It.” When we are talking about whether something is true or not, we are referring more to the thought, opinion or proposition than to the external object itself. For example, the question: “Is such and such true?” asks whether the thought is true—whether the “I” event matches the preexistent reality. Although truth is a “conformity to fact or actuality,” what conforms is our understanding—our thinking. More than any other value, truth describes the most highly evolved aspects of subjective consciousness.

Like all values, the primary values exist partially within the subjective consciousness of each individual—beauty in feelings, truth in thoughts, and goodness in decisions or actions. But each of the primary values also has a primary realm of residence—a domain in which their particular value is *most real* from the standpoint of human perception. Beauty is perceived by consciousness as an actuality expressed by the unity of nature or the creations of art in the external world of “It.” Truth is perceived by consciousness as the potential for correct thinking or understanding within the internal realm of “I.” And the original value of goodness is perceived as *most real* when it causes right relations between all sentient beings within the intersubjective realm of “We.” However, because beauty, truth, and goodness are forms of spiritual experience and spiritual energy, they can’t be “mapped all the way down” (i.e. completely reduced) to the levels of “It, I, and We”—as spirit the primary values preexist and transcend each of these realms. Beauty is spirit in matter (*in* the It, but not *of* the It), truth is spirit in mind (*in* the I, but not *of* the I) and goodness is spirit in the intersubjective realm (*in* the We, but also woven throughout every domain of evolution).

³² While Spiral Dynamics shows how each vMEME is the most appropriate response to a given set of life conditions, the life conditions of 10,000 B.C. no longer describe the state of the world in the 21st Century. So just as we would consider an adult whose cognitive development is arrested at age 5 *retarded*, societies whose center of gravity is presently in purple may be appropriately recognized as *impoverished* in their values.

³³ Our external location is determined by our body, but our “internal location” is determined by where our attention is, and also by the primary vMEME which acts as our center of gravity. And both our attention and our dominant vMEME can best be determined by examining our relationships—who we spend time

with and those to whom we give our awareness. That is, unlike simple locations within time and space, *complex locations* within the noosphere are determined by the locus of consciousness. And consciousness can transcend time and space—human consciousness can dwell in the past or the future, and it can focus on locations distant from the actual location of the body. Moreover, the locus and focus of consciousness can be directed to locations that are entirely within the internal domain. The *directions* of beauty, truth, and goodness relate to the *location* of one's cultural worldview, as well as to one's spiritual status relative to enlightenment. I will be taking up the deep and interesting subject of *complex noosphere location* in a future article.

³⁴ An accurately-charted relationship matrix will present a fairly good picture of the subject's "vMEME stack." That is, a person's personal and impersonal relationships reveal what they value. And this kind of value assessment is likely to be more accurate than a test that simply asks people what they value because such tests often encourage "value inflation." For example, a recent exchange in the Spiral Dynamics online discussion group lamented the fact that in workshops on Spiral Dynamics, when participants are given a multiple choice "values test" with questions that ask them to select for example "The words and phrases that describe me best," the results often show a large number of participants to have the turquoise vMEME as their center of gravity. The discussion group acknowledged it was unlikely that this "values test" produced an accurate assessment of the workshop participants. This kind of test usually fails to accurately chart true values because values cannot be accurately assessed simply by asking what a person's values are in conceptual terms; the results are usually inflated. Rather, an interpreted assessment of a person's relationship matrix reveals a far more accurate picture of their true working values—their true *noosphere location*.

³⁵ One type of intersubjectivity that is often discussed in the science of consciousness literature involves relationships between subjects and objects (with the idea of "objects" usually referring to what Wilber defines as "artifacts"). In my understanding, intersubjectivity consists of patterns in consciousness that are shared between subjects. So a subject's relationship with an artifact (such as a tool) would be intersubjective to the extent that the subject could relate to the makers of the artifact (the tool designer and/or the company that made the tool) through the artifact as a *medium of communication*. However, the relationship between the subject and the object itself would usually not give rise to an intersubjective holon.

³⁶ As the culture of integral business develops, perhaps a system of *value accounting* will emerge that charts the flows of meaning and value energy in an organization in a manner similar to the way generally accepted accounting principles chart the flow of physical energy. Value accounting might chart an organization's relationship matrix, and it might monitor an organization's key communications for value content.

About the Author

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