PATTERN & REALITY

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Also by Charles Johnston:

The Creative Imperative: Human Growth and Planetary Evolution

Necessary Wisdom: Meeting the Challenge of a New Cultural Maturity

The Power of Diversity: An Introduction to the Creative Systems Personality Typology

Hope and the Future: Understanding the New Creativity and Maturity on Which Our Future Depends

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Abstract

"Just as the organism pulls together random, formless stuff into the patterned systems of structure and function in the body, so the unconscious mind seems to select and arrange and correlate… the concept is worth considering that the organizing power of life, manifest in mind as well as body—for the two are hardly separable—is the truly creative element. Creativity thus becomes the attribute of life."

—Biologist E.W. Sinnot

Creative Systems Theory presents a comprehensive theoretical perspective for understanding how living systems organize themselves, grow, and change. Its ideas represent a new kind of theory, one critical to the task of meeting the essential challenges of our time.

Creative Systems Theory argues that today's core questions require that we step beyond the essentially linear and mechanistic logic of most theory and address living systems more systemically and dynamically—in ways that better match their living nature. Creative Systems Theory replaces the "clockworks" causality of traditional theory with the notion that reality is fundamentally creative, that it organizes as interplaying dynamics of formative process.

Creative Systems Theory adds to traditional theory in at least three ways. It offers a big picture view of who we are that better honors life's mystery and complexity. It provides a way to understand often impossibly complicated and "messy" seeming systemic dynamics—from those ordering global politics to those underlying the workings of our own psyches. And it addresses in specific, practical terms today's pivotal cultural question: How must we learn to think and act to have a vital future?

Why Bother?

Before being introduced to concepts from Creative Systems Theory, the reader should have a solid sense of why such ideas are important. The argument for their significance must be a good one, for although these notions are not inordinately complicated, they place what we know in a new and larger ordering context. Thus they require that we re-think our understanding from the ground up.

We'll approach this question of "why bother" from two directions. We'll look first at some of the critical concerns of our times and examine why a new kind of perspective is needed to address them. Then we'll turn briefly to the history of ideas and examine what Creative Systems concepts add to more familiar approaches to understanding.

THE NEW QUESTIONS

When today we attempt to address important cultural issues, increasingly we are left feeling that somehow we've not asked the right question. Restricted to usual ways of thinking, the answer too often comes back: sorry, you can't get there from here.

A closer look reveals we are being confronted by a new order of question. Today's challenges are complex in a sense that requires not just new ideas, but a new kind of idea. They demand that we think much more systemically, in ways that better acknowledge multidimensionality and interrelatedness. And they demand that we think more dynamically, in ways that better reflect that most often we are dealing not with gears, levers, and pulleys, but with "living" phenomena—communities, cells, ethnicities, ecosystems, individuals, values, political and religious persuasions, and on.

Creative Systems Theory represents one response to the challenge of today's new, more systemic and dynamic questions. Below I've listed some of these new questions. After exploring the basic contours of Creative Systems Theory, we'll return to these questions and examine how the theory can help us begin to address them.

How do we relate most effectively with other nations and cultures in a post cold war world?

The end of the cold war presents the opportunity to relate to others on the planet in new ways. In the past, we've defined world policy in terms of allies and enemies—"people like us" juxtaposed with "evil empires." Our times invite us to see others on the planet more maturely—more for who they are and less as projections of what we deny in ourselves. Indeed, with concerns like growing nuclear proliferation and environmental problems that must be dealt with on a global scale, such a new cultural maturity becomes not just an option, but an imperative. Along with a new global consciousness, this will require perspectives that bring greater detail to our understanding of the immense diversity and complexity of human experience.

How do we as individuals best relate to each other in times ahead?

Personal relationships of all sorts are asking more of us as well. With traditional gender roles breaking down, we are being challenged to move beyond "two-halves-make-a-whole" images of intimacy—to bridge old concepts of masculine and feminine and learn to love as whole people. New concepts of leadership ask us in a similar way to bridge across a multitude of old relationship polarities: teacher and student, doctor and patient, manager and worker, president and populace. Succeeding at this new, "whole person" relating requires not just new awareness, but also new, more dynamic and complete ways to think about the complex workings of relationship.

Will the Information Age make us more informed?

Increasingly, every discipline has much more information than any one person can master. On top of this, the critical questions we face are decidedly interdisciplinary—knowing just one discipline doesn't begin to be enough. We face the possibility that "infoglut" may become the modern equivalent of the prehistoric tar pits. For the Information Age to make us truly more informed, we need ways of thinking that can dynamically link the very different languages and assumptions of various disciplines and allow us to better address underlying processes and purposes.

How do we make sense of today's new uncertainties?

Wherever we look, we find the loss of familiar handholds. For many situations the evidence is good that we will never again know certainty in quite the same sense. For example, culture will likely not provide us with a shiny new set of gender roles to replace those we have recently lost. If we are to do more than just run in fear from today's uncertainties, we need big picture perspectives that can help us understand not only how the world is complex, but also the role uncertainty plays in that complexity.

How do we best define progress for time's ahead?

Culture's most recent definition of progress—new inventions and material growth—becomes a formula for global suicide if extended much further into the future. Progress for the 21st Century must be based on a broader concept of "more," one that includes every aspect of life—the moral and the environmental as much as the material and technological, and all the planet's immense diversity, human and otherwise. Such a more systemic view of progress will require ways of thinking that effectively address the multi-layered and time-relative nature of planetary conditions and cultural truth.

What is intelligence?

We recognize increasingly that intellect—what we measure with I.Q. tests—represents but one aspect of intelligence. Personality styles in which traditional intelligence is primary have prospered in traditional education. Where other kinds of intelligence predominate—for example, intelligence that is more kinesthetic, more feeling and relationship based, more intuitive, etc.—people have gotten the short end of the stick. Education that effectively mines and supports the full richness of human complexity must be based on more complete, systemic, and dynamic models of who we are and the diverse ways we organize experience.

How do we rethink organizational structure for times ahead?

Simple hierarchical organizational models worked well for the Industrial Age. Today, wherever we look—business, government, education, medicine, religion— we find familiar institutional assumptions leaving us entangled in bureaucracy and

facing growing crises of confidence. Institutions of all kinds call for more dynamic and creative models of organizational functioning. Popular notions such as "work teams," "flattening hierarchies," "total quality," and "learning organizations" reflect the beginnings of a more dynamic view. But these notions are only beginnings and each have their own blindnesses. We need new, comprehensive models for understanding change and relationship within and between organizations.

What does it mean to be a moral person?

At some level, all the critical questions of our time are moral questions. We can no longer avoid ethical responsibility by wearing cloaks of objectivity, claiming "I'm just a scientist" or "I'm just a journalist." At once, traditional moral codes of all kinds are breaking down, revealing themselves too narrow for what is being asked. The territory ahead requires new concepts of moral truth, ones sufficiently dynamic to keep us from falling back into sectarian dogmatism, yet sufficiently specific and sophisticated to keep us from losing all direction in moral relativism.

How do we make coherent sense of these times?

The single most important task of our time is that of developing a credible and compelling image of the future. The crises of our time are at essence crises of purpose—reflections of the fact that our cultural story is no longer sufficient to who we have become. The immense array of current youth-related concerns make particularly poignant illustrations—dramatic increases in teen suicide and violence, growing drug use and teen pregnancy, and a frighteningly pervasive general anomie. Each reflect a reality in which a major portion of our youth, often our best and brightest, see no coherent and meaningful image for the future. If our future is to be a healthy one, we need perspectives for making positive sense of what our times are asking of us.

The critical questions of our time take us into new territory. They demand that we take into account profound new complexities and venture forth in a world that is much more dynamic and more infused with uncertainty than what we have known in the past. Creative Systems Theory presents one "map" for making our way in this easily confusing and overwhelming new territory.

HISTORICAL PERSPECTIVES

Some reflection on history and a brief look at how present times fit into the larger story of human culture and thought can help us further understand our current challenges. On first encounter, the assertion that today's questions require fundamental changes in how we think may seem like an overly dramatic notion. Some historical reflection can help greatly in making sense of what today's challenges ask of us.

Change in human understanding often happens incrementally—one idea adding to the next. But just as often changes happen in leaps, some small, some large. Culture is like a snake, periodically shedding its skin. Over time, critical issues become too big for the old skin—a culture's conventions and assumptions—and the skin splits, requiring new realities of understanding.

Throughout this century, questions like those presented in the last section—unavoidable questions that can't be addressed with old frameworks—have pushed inexorably against our modern conceptual skin. Here and there they have split it, in some cases resulting in larger understanding, in others simply befuddlement. The evidence is good that we live in a time of fairly major skin shedding.

To understand these conceptual challenges and their effect through this century with any depth, we need to look through a long historical lens.

Our most recent conceptual "skin" first appeared some four hundred years ago with the end of the Middle Ages. Reality in medieval times had been understood in terms of great forces set in eternal tension. Truth was defined on one side by the church's polar rules of good and evil and on the other by the crown's equally polar rules of feudalism.

The Renaissance, and after it the Age and Reason, presented truths that while also polar, were different in significant ways. The new defining juxtapositions, such things as art and science, subjective and objective, facts and feelings were more clearly set separate so there was less a sense of tension. And one pole came increasingly to predominate. "Harder" concerns such as science, law, and business came to define "real" truth. "Softer" concerns like art and spirituality, while still valued, assumed a secondary status.

The reigning authority in the dominant pole of this new reality was the individual mind and with it the laws of a rationally causal universe. We heard Rene

Descartes proclaiming a new human identity: Cogito ergo sum, "I think therefore I am." Isaac Newton described a universe no longer controlled by the whims of mysterious forces, but ordered by simple mechanical laws.

This new truth had a compelling surety and positivism. Historians spoke of us stepping into a new "Age of Enlightenment." All of reality was to be knowable and, with time, open to human influence. In the words of French mathematician Pierre LaPlace: "[For] an intellect which at a given instant knew all forces…and the positions of all things… nothing would be uncertain." Man the obedient had become man the logician, the choice-maker, the determiner. The advances that spawned from this new truth were monumental—democratic governance, scientific medicine, universal education, and our multitude of labor-saving inventions and technologies.

But however amazing this reality was, it, like those before it, was only in part complete. It is this "skin" at which contemporary questions push. What was missing in this new world view? At least two things.

First was interrelationship. Central to modern thought was a new cleanliness in how we approached making distinctions. Each person was to be seen as separate and distinct—an individual. And individuals were to be able to stand wholly separate from what they observed—to be objective. This was a powerful step. At the same time it required a critical "forgetting"—that in fact elements in reality are interrelated.[1]

The second missing piece we might call simply "life." In a Cartesian reality, the universe and all within it is thought of as a great clockworks. This image made possible that essential capacity for clear differentiation and distinction. Yet we, and most of what we want to understand, are not machines. We are alive. And however amazing a machine's complexity, it remains a machine.

The ordering truth of a cultural stage organizes every aspect of our understanding. Thus, we have applied this machine image across the board—as equally to

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[1]   Recognition of interrelationship was not wholly absent, simply relegated to those realms that were viewed as separate and secondary from "hard truth." Relationship-based concerns such as community, morality, and spirituality still had a place, but less and less were they regarded as central to understanding. Indeed, in contemporary times, they have often ceased being concerns at all.

ourselves as to the physical world. We speak of history as the causal product of governments and wars; economics as the stimulus-response interplay of supply and demand; education as the additive accumulation of information in a milieu of appropriate motivators; religion as the causal relationship of good deeds and divine will. If we listened only to our descriptions, the workings of a human organism would sound little different from those of an automobile: genetics, parents, and educators build it; doctors and theologians keep it running; economists and psychologists make observations about quality control; and historians keep records of production.

In its timeliness, modern thought served us richly. It was the perfect lever for taking us beyond the constraints of mysticism, blood privilege, and moral dogma. But now we have outgrown that skin and our evolution is asking we embrace a larger reality.

The first intimations that new ways of thinking lay on the horizon were felt about a hundred years ago.[2] The notion that we could, in time, bring everything into the light of pure reason was shaken on multiple fronts. We heard Charles Darwin asserting that we might share history with the hairiest of apes (his ideas were published earlier, but popularized at this time). Sigmund Freud claimed that a similar dark "creatureness" might lie within our own psyches.

The first full leap beyond our modern material view of reality occurred at this time in the hard sciences. It was heralded by the thinking of Albert Einstein and carried forth in the radically pioneering ideas of quantum mechanics. These notions fundamentally challenged the mechanical certitude of the Newtonian universe and gave physics the image of a dramatically more dynamic, mysterious and powerful planetary order.

Throughout this century, we have heard increasingly articulate critiques of a mechanical world view, particularly as applied outside the hard sciences. Some of the more familiar voices in this critique include John Dewey, Alfred North Whitehead, Friedrich Nietsche, Carl Jung, and Gregory Bateson to name but a few. And from a variety of directions—most notably ecological thought and the cybernetic notions of General Systems Theory—we've seen a growing sensitivity

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2   See *Necessary Wisdom* pp. 208-217 for a more detailed look at this historical process.

to the importance of thinking relationally (though most often still within a mechanical paradigm).

Our times present us with a major conceptual challenge. We need to move beyond critiques of traditional models and develop comprehensive perspectives for the human sphere that, like the ideas that have revolutionized the hard sciences in this century, take us beyond the mechanistic assumptions of the Modern Age. This means much more than new liberal or humanistic ideas—a softening of the mechanistic's inevitable hard corners. It means developing ways of thinking that in a rigorous and hard-nosed way speak from the whole of our complex living natures.

Creative Systems Theory is one attempt to address this challenge.

Creative Causality

"Perhaps the time is now ripe when the mystic can break the glass through which he sees all things darkly, and the rationalist can break the glass through which he sees all things clearly, and both together can enter the kingdom of psychological reality."

—Norman O. Brown

If we wish to understand in more "living" terms, we must start by addressing the fundamental paradigmatic question: What is to replace the image of the universe as a great machine? Until this question is successfully confronted, we can do little more than offer vague intuitions about the kind of thinking the future seems to demand.

The "ah-ha" that started me on the journey toward one way of addressing this question came while exploring two related, very basic philosophical issues. First, I was pondering how living systems change: What happens when something grows? Second, I was exploring the issue of what links the parts in living systems—within ourselves, in relationships, between social bodies—as systems: How are living things connected?

Historically we have addressed these questions from one of two polar vantages: the sacred and the secular.[3] In our modern secular perspective, that of the scientific world view, parts are understood as separate analyzable entities—like balls on a billiard table—and change happens according to the laws of material cause and effect—like one ball bouncing off another. In more spiritual perspectives, parts are intrinsically connected rather than being isolated entities—all is one. Here, change—as divine will, fate, synchronisity, or karma—follows directly from that oneness.

It was clear to me that neither of these polar vantages was sufficient for the task of understanding living systems. Each expresses a part of the picture, but each is ultimately deterministic, in its own way mechanistic. In neither is there sufficient room for the vital respiration that makes something life.

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[3]   Importantly, our experience of the sacred and secular are not constants, but change in specific ways through the evolution of culture. Creative Systems Theory gives one way to understand these changes.

The "ah-ah" that came was this: I saw that relationship between parts in living systems, rather than being causal in either a mechanical or synchronistic sense, might be more accurately creative. As I worked this notion over in my mind, I sensed I was close to what I was looking for. I saw that if change and connectedness could be addressed in generative terms, we could talk about living processes in qualitatively more dynamic, living ways.

I use "creative" here in its largest sense: to refer not just to some event in our primordial past or to artistic creativity, but to the whole of formative process—to how things are born, grow, relate, and evolve. In a Creative Systems view, creation presents, to use Gregory Bateson's eloquent phrase, "the pattern which connects."

This notion that causality in living systems is creative challenges our usual ways of thinking in fundamental ways and requires multiple layers of understanding. However, a simple example can get us started. Let's briefly explore a realm of experience intimate to all of us: love.

If we look closely at love, we see that neither of our common ways of thinking about how love works is adequate to its magic and passion. Love is obviously more than mechanical—"I do this to you and you do this to me." (The world view of traditional science and analytic thought). It is alive. Simultaneously, it is more than simply fated—"It was meant to be" (a view from the more romantic or spiritual side of ourselves). Such a view leaves out the very personal vulnerability and uncertainty central to love in real life.

So what is love? Can we move just a step closer in honoring the richness that it is about? First, love is clearly a process. More specifically, it is a generative, creative process. When we meet, if that meeting is right and timely, something (we might call it a seed of possibility) is born between us. If we honor it and take the risks it asks of us, it grows as a unique expression of who, together, we are creatively becoming. This growth takes us through fairly predictable stages—a time of first infatuation, a time of struggle, a time of establishing roles, and so on. Gradually, if we succeed at meeting its many creative challenges, our being together takes on the qualities we call relationship, and love. Both change and connectedness in love are ultimately creative.

In a Creative Systems view of reality, a similar kind of generative dynamic is seen working beneath the surface in all the major rhythms of existence—in how

we learn new tasks, in an individual's growth through his or her lifetime, in the evolution of cultures. All change in some way means creative change, and all connections represent in some way creative connections. Newton's picture of reality as gears and pulleys set in motion by a separate divine architect is put aside and replaced by the more dynamic image of reality as interwoven patterns of formative process.

Creative Systems Theory: Core Concepts

> "Creativity is the universal of universals."
> —*Alfred North Whitehead*

What do we see when we view reality through a Creative Systems lens? Below I've outlined some of the core concepts in Creative Systems Theory (in italics). Page numbers refer to more complete elaborations of these notions in *The Creative Imperative* (TCI), *Necessary Wisdom* (NW), and *The Power of Diversity: An Introduction to the Creative Systems Personality Typology* (TPD).

CREATIVE CAUSALITY

The topic of the previous section. From a Creative Systems perspective both change and relationship are formative dynamics. Reality is composed of ongoing, interwoven, processes of creative self-organization.
(TCI pp. 9-13, 31-38; NW pp. 28-34, 217-220)

POST-MATERIAL MEASURES FOR TRUTH

Creative Systems Theory directly addresses the question of how to understand truth and value when form-defined measures are no longer sufficient (e.g., relationships beyond roles, progress beyond material accumulation, defense beyond domination). From a Creative Systems perspective, what we are wanting to measure ultimately is the degree something is creative in the largest sense, ultimately enhancing of life.

This more dynamically conceived truth is spoken of in Creative Systems language as simply *aliveness.* The word means much more than our popular connotation of excitement or enthusiasm—at a particular moment, the courage to grieve or doubt might be much more enhancing of life than joyfulness. There is no thought or no feeling that at a particular moment might not represent the fullest manifestation of aliveness.

While aliveness is inherently beyond purely rational definition and simple

material measure, it can be defined quite directly in terms of formative process: aliveness is a measure of the amount of creation, the amount of that fundamental formative respiration, embodied in a system at a particular moment in time.[4]

Aliveness redefines purpose in every domain. For example, as a psychotherapist I find it important to step beyond the sometimes useful but ultimately limiting mechanical notion that my job is fixing broken psyches. When everything else is cut away, what I do is help people recognize in an ongoing way what is most alive for them—most true in a living sense—and to find the courage and capacity to shape their lives from that truth.

The same shift in perspective reframes the pursuit of truth in any sphere. In the domain of intimacy, when we ask how we might understand relationship beyond the causal materiality of roles, we are asking for a way to think about love that centers on that which is uniquely "alive" and creative between whole people. In searching to redefine progress, we are looking for ways to make the bottom line in cultural choices "quality of life" in the largest, most complete and systemic sense.

I am not suggesting that truth is suddenly something qualitatively different. From a Creative Systems perspective, truth has always been about aliveness. What is new is our being cognizant of this fact. With each epoch and place in history, the "psyche of culture" has "chosen" forms and assumptions capable of enhancing life in ways consistent with the creative challenges of that time and place and made these its truths. The differences now are two: first we are moving beyond the isolated material truth of our modern epoch, and second, and most important, we are becoming capable of stepping back and seeing the larger process that past truths have been time-specific expressions within.

Besides helping us rethink the nature of truth in any one particular sphere, a Creative Systems view expands how we understand the relationships between the truths of different spheres. This benefits us immensely in the task of grappling with the diverse and contradictory languages and assumptions that necessarily collide with any interdisciplinary endeavor. In a materially causal reality measures for different domains are like separate columns on a ledger sheet—for all intents and purposes distinct. (Defeating disease in medicine, learning facts and skills in

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[4]   There is no "litmus paper" test for aliveness, but neither is it simply subjective (the other pole to the objective in a material reality), something to dismiss as simply personal. Aliveness defines the greater whole of objectivity and subjectivity.

education, the GNP in economics, doing God's will in religion, power in politics, and beauty in art are quite different concerns.) Viewed creatively, our various measures become less like ledger columns and more like chips in a chocolate chip cookie, not the same, yet very much interconnected, each an aspect of what makes a system creative and alive.

"ledger sheet" view   "chocolate chip cookie" view

Truth and Value

A Creative Systems view not only acknowledges the systemic relationship between different truths, but lets us begin to "map" these creative interrelationships. Each chocolate chip becomes a different flavor, expressing a unique function within the creative whole. (For example, as we shall see, concerns that we think of as more spiritual or artistic tend to take expression from the more germinally defined parts of a creatively conceived reality, such concerns as science and business from those parts that are more manifest.) A Creative Systems view also offers a way to understand these various truths as evolutionary dynamics. It can "map" these truths not just according to their creative relationship at a particular moment, but as creative relationships through time. It sets the cookie in motion, and not just the motion of rolling along, but as we shall see, the motion of transformation—motion that makes leaps and takes it through different experiential realities.

(TCI pp. 38-43, NW pp. 98-105)

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CAPACITANCE

Whereas aliveness defines truth in Creative Systems Theory, *capacitance* defines health or well-being. At any one time, we as individuals, relationships, or communities possess a certain capacity for aliveness. As a function of where we are in our development and who uniquely we have become, there is a finite "volume" of creation that the "vessel" of who we are can hold. In Creative Systems Theory, this volume is called a system's capacitance.

Capacitance takes us beyond behaviorally defined notions of health to address health in terms of the whole of who we are. In a similar way it describes dis-ease more systemically and dynamically. A system will perceive an experience as more true (more meaningful, more healthy) the greater the experience's aliveness—up the limit of its capacitance. At that point, one of three things takes place: the system will expand itself and grow, it will act overtly to make a boundary (to protect the "vessel" from being expanded too far and broken), or it will protect itself covertly by creating *symptoms***.**

Defined creatively, symptoms can be variously understood as: 1) important ways in which systems protect themselves, 2) diversions from where the real aliveness lies, and 3) pointers to potential growth.

Symptoms may function in a variety of ways. Looking to individual psychology, they may function internally to block avenues of effect (depression or rigidity, for example) or interpersonally to diminish the potency of the challenge (for example, being combative or undermining). They may protect us by moving us above the challenge (e.g., intellectualization), dropping us below it (e.g., taking a victim posture), moving us inside it (e.g., becoming aloof), or taking us beyond it (e.g., busying oneself)—or by doing two of these simultaneously. Symptoms can be an ongoing way of relating to the bigness of the world or responses to particular kinds and intensities of challenge.

In the psychological sphere, using the concept of capacitance to frame symptoms offers a way beyond the narrow categoricalness of conventional pathology models while at the same time avoiding the equally limiting "different strokes for different folks" mushy humanism of common "growth" models. Applied to any kind of living system, it lets us think with high discernment about health and

capacity and have our thoughts increase rather than decrease our appreciation of life's wonder and complexity.

In a parallel way, the concept of capacitance can be used to more dynamically frame the concept of *violence*. From a Creative Systems perspective, violence is anything that diminishes the overall aliveness of a system. As with symptoms, this redefinition separates the concept of violence from particular acts and instead focuses on underlying process. Just as any act or emotion may serve to increase aliveness if the time and place are right, so may any act or emotion decrease aliveness in particular circumstances. Besides helping us to avoid misperceptions by clinging to the form of an act, the concept of capacitance helps us think more comprehensively about the diverse array of phenomena that have violent effects.[5]

From a Creative Systems perspective, *morality* undergoes a similar redefinition. In the big picture, morality is a conversation about aliveness, capacitance, symptoms, and violence. Moral acts are acts that increase overall aliveness.

Any of these notions can be applied to systems of any size. For example, they can help us understand the violent atrocities of Nazi Germany in more useful terms than just human evil. From a Creative Systems perspective, we see a system pushed beyond its capacitance by the uncertainties of the 1920's and 1930's. The German people, rather than responding with growth, avoided dealing with the challenge to new aliveness by moving above it and becoming the upper pole of a violent victimizer/victim polarity. (Framing violence creatively rather than in the customary language of good and evil does not in any way diminish its appropriate condemnation, it simply brings it closer to home, making it something we can more directly learn from).

(TCI pp. 58, 101; NW pp. 150-156)

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[5]   For example, a Creative Systems perspective suggests that we need to think not just in terms of "archetypally masculine" violence—overt aggression—but "archetypally feminine" violence as well—behavior that is, say, undermining or suffocating. See page 27 for more on this terminology.

CREATIVE SYSTEMS

The great advances of the Modern Age were predicated on the maintenance of duality, on keeping the body of nature held in the posture of the Cartesian split. Emerging reality demands that we learn to understand how things that before seemed mutually exclusive are in fact complementary voices in larger processes: matter and energy in physics, mind and body in medicine, masculine and feminine in our understanding of gender, and so on. In every domain, our times challenge us to *bridge polarities,* to see beyond past conceptual either/or's and to understand reality in terms of whole systems.

The language of creative process provides a powerful tool for this task. It naturally bridges. As we shall see, creative dynamics evolve as plays of polarities. A Creative Systems perspective thus inherently provides a *third space* vantage, a way of viewing experience in terms of the larger wholes that polar pairs are parts within.

The notion that we must think more systemically is not new. It is one of the central themes of emerging thought in this century—made most manifest in ecological concepts and in cybernetics. But most all systems perspectives have thus far remained within a mechanical world view. One of the powers of using creative process language is that it lets us frame systems in dynamic terms.

We catch a first glimpse of this in my earlier assertion that Creative Systems ideas bridge the material and the spiritual, joining classical thought's two hands of truth. The creative inherently takes us outside the bounds of conventional rational thought. It includes that which is most manifest, material, and individualized (which viewed in isolation is quite fully explained by more mechanistic causality), but it has it origins in quite a different reality—the germinal, ephemeral, and contextual beginnings of things (which viewed in isolation work according to a more spiritual causality). Creation as a process spans the full distance from that which is most elusive and mysterious in our experience to that which is most concrete.

A closer look at the workings of polarities further illuminates the dynamic nature of creative systems. Bridging polarities gives us something much more interesting than split-the-difference compromise. It propels us into a world of dynamically self-creating systems, a reality where one plus one always equals more than two.

Indeed, the workings of polarities offer some of the strongest evidence for the creative nature of reality. If we listen carefully as we play with such wholly different

pairings as sacred and secular, work and play, matter and energy, or art and science we hear a universal dialogue spoken. Polarities universally juxtapose something that feels more hard and defined—secular, work, matter, science's objectivity—with something that feels softer and subtler—sacred, play, energy, the subjective.

germinal beginnings   manifest form
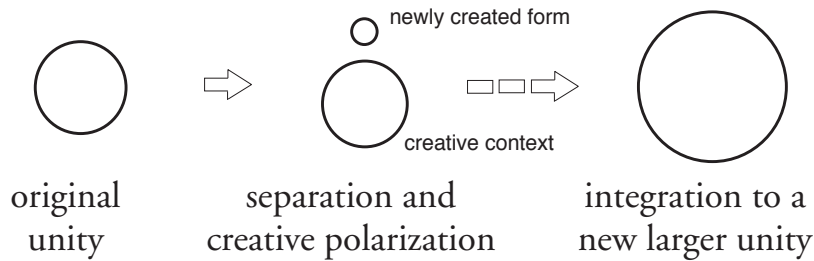
Creative Process
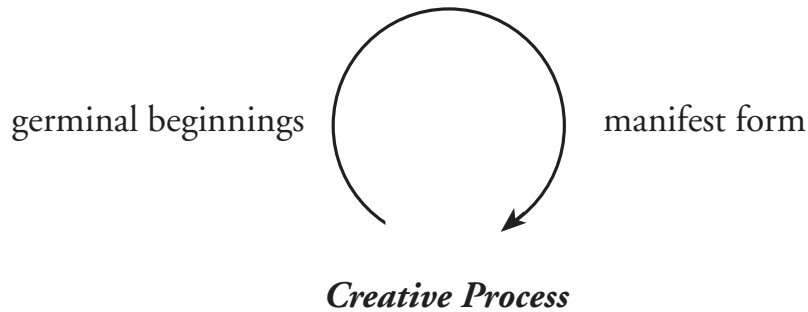
Mythologists have a simple way of talking about these differences. They speak of the polar qualities that are harder, more material, more objectified as *archetypally masculine.* Their softer, less form-defined, more contextual complements are said to be *archetypally feminine.* The terminology can cause some initial confusion—archetypally masculine and archetypally feminine refer to qualities possessed by both men and women. But the concepts prove useful. Note the obvious erotic and creative connotations of the mythologist's language. The words imply that polarities interact in some "procreative" sense. By all evidence they do precisely that.

Creative Systems ideas provide an answer for one of philosophy's eternal questions: Why have we been so committed to thinking in either/ors when there is no reason to assume reality is anything but whole? A Creative System's perspective suggests that this splitting of reality is a direct product of our formative natures. Within any creative dynamic we see a similar unfolding pattern. Creation starts with unity, buds off new form—creating duality in the process—and then with time reintegrates to a new, larger whole.

The birth of a new idea illustrates this pattern. First any new idea must bud off from the "original unity" of past cultural assumptions. Then, over time, it is variously ignored, deified, rejected, struggled with, and refined. Through this

process it grows. Eventually, if it is recognized as having value, it reconnects with the old unity. It becomes part of a new, now expanded cultural whole—part of a new "common sense."

**original
unity**   **separation and
creative polarization**   **integration to a
new larger unity**

newly created form
creative context

***Polarity as an Inherent Dynamic in any Formative Process
(from* Necessary Wisdom *p. 32)***

Seen creatively, polarities are expressions of the tension necessary to bring the new into being. They represent, in myriad permutations, the evolving relationship between the "stuff" of new form and the reality of its creative context.

Creative Systems Theory challenges us to see reality from an *integrative perspective*, in terms of the larger, living processes that polar pairs are parts within. (NW–its entirety)

INTEGRATIVE INTELLIGENCE

There is a saying in ecological thought that living systems are not only more complex than we think, they are more complex than we can think. Creative Systems Theory's effectiveness in describing living complexity is based in large measure on how it redefines what it means to think.

From a Creative Systems perspective, we can think in "living" terms only to the degree we bring all of ourselves as living beings—our self as a whole creative system—to the task of conception. Creative Systems ideas view our different "intelligences" as expressions of the different time-relative realities that make up formative process. Our intellects express well the most manifest aspects of creative

reality. But we also need all the more creatively germinal levels of our being—our bodies, our imaginations, our emotions—if we are to speak effectively from and about our living natures.

The diagram below briefly outlines multiple intelligences as seen from a Creative Systems Perspective.[6]

The articulation of truth from this larger *integrative intelligence* lets Creative Systems Theory move beyond an isolatedly mechanical world view. Creative Systems Theory succeeds in addressing living systems in "living" terms by speaking from a place that includes the unique conceptual reality of each part of ourselves as creatively whole beings.

(TCI pp. 15-28, NW pp. 106-113)
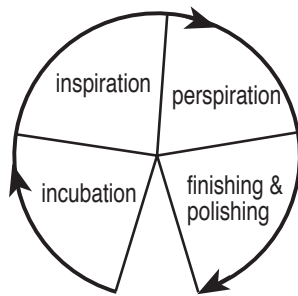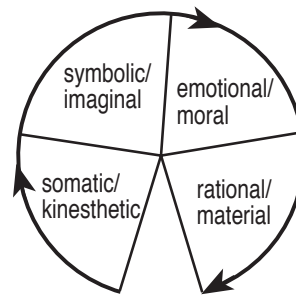
Creative Stages   Modes of Intelligence

A Creative Systems View of Multiple Intelligences
(From **Necessary Wisdom** *p. 109)*

WHOLE PERSON/WHOLE SYSTEM IDENTITY

Some of our most important polarities define roles in relationships (besides male/female, parent/child, teacher/student, doctor/patient, friend/enemy). Put in the language of Creative Systems, we are witnessing the emergence of an important

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[6]   See *Necessary Wisdom* pp. 108-113 for a more complete elaboration of these concepts and definition of terms.

new human capacity: the ability for the individual to *embody the creative whole.* "Two-halves-make-a-whole" relationships are becoming increasingly vestigial in all spheres. Effective functioning is beginning to require an array of new *whole-person relationship* skills.

A Creative Systems perspective challenges us to understand who we are in larger terms. The bridging of polarities like masculine and feminine and mind and body represent the most obvious level of this. But there are additional levels. The complexity of our times asks us to understand as well our integral relationships with all sorts of other systems. In a whole system reality, there is no such thing as an isolated whole system.

We glimpse some of this larger picture with the recognition that the individual as conceived in the Modern Age is at once a whole and only half of a whole. A look at either the impassioned image of the "rugged individualist" or the intellectual and scientific image of the "individual as objective observer" reveals a picture of identity that articulates well the archetypally masculine reality of distinction, but essentially ignores the more archetypally feminine reality of interconnection. Identity within a Creative Systems perspective is defined not just by this whole

Identity as a Multilayered Systemic Dynamic

that I call myself, but also, to greater and lesser degrees, by all the larger wholes of which I am a part—friendships, community, culture, and so on. (Thus, for example, while from a mature integral perspective "looking out for number one" has its timeliness, in the big picture it is just not good self interest.)

(TCI pp. 311-349, 361-363, NW pp. 39-92, 163-179)

From a Creative Systems perspective, each of these various creative wholes are creative not only in the sense of being creatively related, but also in the sense of being formative dynamics. Each of these interwoven systems—individuals, relationships, communities, cultures—grows and evolves according to the laws of creative self-organization.
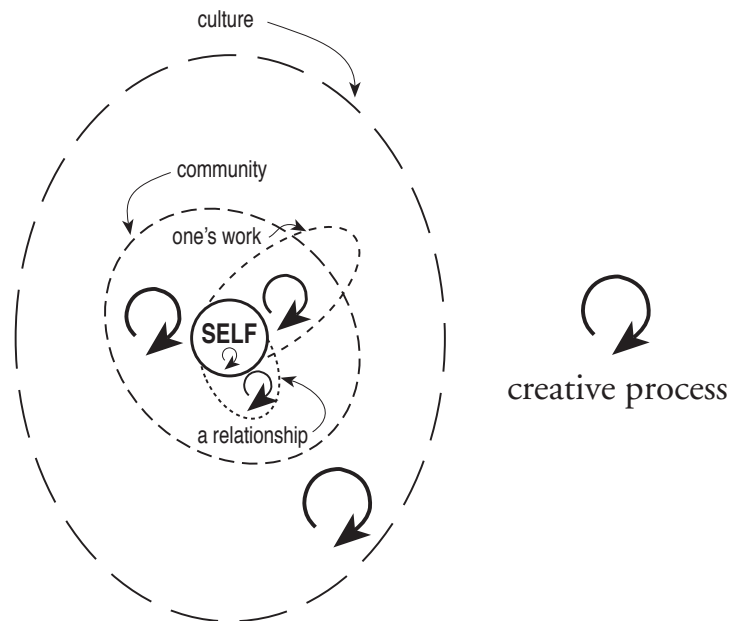
Identity as an Interplay of Creative Systems

CULTURAL MATURITY

No bridging is more important than that happening between the psyche of the individual and the "psyche" of culture. In our past, culture has been like a parent,

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providing us with absolute truths that have served as the protecting rules for right understanding and right behavior. Whether we look to gender and professional roles or the absolutes of religious, ethnic, and political dogmas, we can see that the future is asking more of us. We are being challenged to a new cultural maturity—to an acceptance of ongoing responsibility in culture as a creative process.

Creative Systems Theory suggests that ideas such as its own are becoming possible precisely because we are in the midst of this fascinating time of new maturity. Creative Systems Theory asks us to see from the larger whole that culture and individual life together comprise. This becomes possible only when the individual as concept is sufficiently established that an image of culture as parent is no longer needed.

(NW pp. 163-179)

META-DETERMINACY

Bridging the personal and cultural psyches throws us into a new relationship with uncertainty. Uncertainty has always been part and parcel of the lives of we mortals. But culture as parent has always provided a counterpoising pole of certainty—almighty pantheons of gods, invariant moral commandments, reliably deterministic laws of science.

Few things more define our times than the loss of final truths. As Nietsche said, today there is "no immaculate perception." Bridge the realities of the personal and cultural psyches and uncertainty becomes a characteristic of reality itself.

The new relationship to uncertainty experienced in a mature culture is captured in Creative Systems Theory by the term *meta-determinacy.* Meta-determinacy bridges our past polar concepts of certainty and uncertainty. Reality from a Creative Systems perspective is neither predetermined nor random and capricious. It is highly patterned, but this patterning includes uncertainty as an essential element.

(TCI pp. 10-11, 34-41; NW pp. 27-28, 113-118)

A NEW RELATIONSHIP TO LIMITS

Cultural maturity asks of us a new, more personal and creative relationship to limits. This manifests at a variety of levels.

We see this change with particular poignancy in relationships. In "two-halves-

make-a-whole" relationships, the major boundaries or interfaces (the no's and yes'es of interaction) were predefined by cultural roles and conventions. In whole-person relationships, little is predefined in this way. On first encounter, you might then think boundaries to be less important. In fact, because they need to be more dynamic and specific to each situation, being conscious of them takes on ever greater importance. A whole-person reality requires us to understand boundaries as ever-evolving creative dynamics and to take ongoing responsibility in their workings.

A second place we see this needed new relationship to limits is in the many settings where the heroic mythology of modern times is proving inadequate. We are being challenged to recognize that reality includes real limits—whether that is in seeing how modern medicine's call to defeat death and disease at any cost is ultimately inconsistent with a workable health care system, or in learning the importance of living sustainably, in ways that acknowledge planetary limits.

(See article "The Wisdom of Limits" in the appendix of this paper and TCI pp. 214-222, 230-246, 31-334.)

CREATIVE FALLACIES

Creative Systems Theory offers important tools for discerning when a way of thinking or being is not big enough for the new questions. One of the simplest and most useful tools focuses on polarities and ways we can stop short of the needed bridging in our understanding.

Such misconceptions are one of three types: *separation fallacies, unity fallacies, and compromise fallacies.* Separation fallacies side with the archetypally masculine in our polar wars, unity fallacies side with the archetypally feminine, and compromise fallacies settle for the mediocre middle. We can use the colloquial stereotypes of the "splitters" and the "lumpers" to further elaborate.

With separation fallacies, we raise the splitters' hand in victory and turn our back to the lumper. Mind remains separate from body, subjective from objective, certainty from uncertainty. East is East and West is West and never the twain shall meet. Implicit in this siding with distinction is a less obvious siding with the "harder" side of each polarity.

Unity fallacies side with the lumpers. They mistake oneness for wholeness. In the name of inclusiveness, unity fallacies, in fact, quite directly take sides—with

the "softer," more archetypally feminine hand of truth. Good places to see this kind of fallacy are in liberal, humanistic, idealistic, philosophically romantic, or "new age" notions. "It is feelings that really express truth." "The task is to be always open and understanding." "It is the poets who know."

Compromise fallacies confuse integration with some additive middle ground. Rather than revealing the rich, ever-evolving spectrum of colors that lies between black and white, they lead us conclude that reality simply shows varying shades of grey. The trick to avoiding compromise fallacies lies in remembering that the task is not to split the difference between truth's two hands, but to live as the rich body of experience that joins them and animates them.

(NW pp. 34-38)

CREATIVE PATTERNING

New thinking requires not just a new way of understanding wholes, but also a new understanding of the nature of parts. The question of parts is critical. Differentiation, the capacity to separate one thing from another, is what makes understanding of any practical importance.

But the question of parts presents a conceptual pickle. Differentiation in any customary sense means dividing atomistically, throwing us immediately back into a machine world. The dilemma could not be more central: How do we think in terms of parts and still honor the "living" nature of reality? Approached conventionally, the question presents a seemingly intractable Catch-22.

Creative Systems Theory offers a solution. It addresses the question of differentiation by radically reframing the nature of parts. From a Creative Systems perspective, reality is creative not only in the "whole ball of wax" sense of being interconnected and generative, but is also creatively patterned. In a Creative Systems view of reality, these patternings in the whole serve as the needed parts for our thinking.

"Parts" in this sense represent a new kind of concept. Rather than atomistic bits as in mechanical models, parts become principles of creative organization, ecologically related statements of living relationship. By framing parts creatively, we open the door to a new capacity: the ability to think with detail about life and

have our discriminations of detail not only acknowledge but highlight the central fact that life is indeed alive.

Creation in the Creative Systems Theory is understood not just as some vague essence, nor as a rabbit-out-of-hat process of invention, but as a highly patterned dynamic. It is seen to progress through a specific sequence of formative stages. It is these stages of creation (along with the various kinds of creative processes of which we are a part—personal to planetary) that serve as the "parts" for differentiation in the theory.[7]

As we shall see, these "parts" differentiate reality in a way that is relative both in space and time. These are not simply additive steps as in atomistic models, but time- and space-specific[8] statements of relationship.

Because this question of differentiation is so important, we'll take time to focus on it more specifically and to examine some of the detail of this patterning. We will look first at patterning in time and then turn to the parallel patterning in space.

(See TCI Chap. 3 to end of book.)

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[7] This approach to differentiation offers an important next step in the development of system's thinking. Evolutionary systems thinking (Prigogine, Jantsch, Laszlo, Waddington) has, with formative notions such as "self organization" and "order through fluctuation," effectively taken systems thinking beyond the simple feedback mechanics of cybernetics. But these are broad brushstrokes at best. Creative Systems Theory, by offering a way to differentiate formative reality, opens the door to using evolutionary thinking for detailed analysis of human questions and effective future planning.

[8] Creative causality is a *four-dimensional* concept.

Creation as Pattern in Time

"There is an instinct for rhythmic relations which embraces
our entire world of forms."

—Friedrich Nietsche

To look at patterning in time, we'll juxtapose the developmental dynamics of four very different formative *periodicities* (wavelengths of creative cycle): the sequencing found in any simple creative act (sculpting has had a very important place in my life, so I'll use it as example); the course of an individual lifetime; the developmental process of an intimate relationship; and the story of the lifetime of civilization. From a Creative Systems perspective, a parallel kind of creative organization is found in each.

Before exploring this patterning, we should note that this task is trickier than might be expected. First, grasping this progression with any completeness will require more than our intellects. Formative process involves all of who we are: our bodies, our spirits, and our emotions as well as our minds. As we shall see, a different aspect of knowing becomes primary at each stage.

Second, we will have to set aside our need to have once-and-for-all objective definitions for the truth of each stage. To demand this would be to demand that all stages be reducible to the reality of a single stage, that stage in which logic and objectivity are experienced as complete vehicles for describing reality.

Third, our task is made subtler still by a dynamic inherent to any formative process: amnesias for stages we have progressed beyond. During the first half of the creative cycle, we lose our capacity to "feel" its truth in any but the most superficial ways.[9] To understand the theory with real depth requires that we reconnect with parts of ourselves that we may only faintly recollect.[10]

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[9]   Thus, adolescents have an impossible time remembering the reality of childhood. And adults find the behavior of adolescents positively baffling even though they occupied this reality only a few short years before. In a precisely parallel way, it is very hard for us to connect with realities of earlier stages in the evolution of culture. We see them only "through a glass darkly" and quickly move to either denigrate or romanticize the faint images we do perceive.

A final complicating factor is the degree different people respond very differently to the different stages. What seems most easily understandable to one person may be the most baffling to another. The reason for this is that creative stages represent not only steps in development, but the fundamental parts of our natures as creative processes. One application of the theory is as a new, more dynamic framework for thinking about personality differences. Our major personality tendencies can be understood as reflections of the parts within the creative whole that we most deeply embody.

Enough of introduction. To begin our exploration of pattern, let's look first at the broad architecture. Any creative cycle has two halves, involving two very different kinds of processes. In the first, the differentiation phase, the new entity created buds off from its context, gradually matures, and takes its unique form. The following shows the process of creative differentiation:
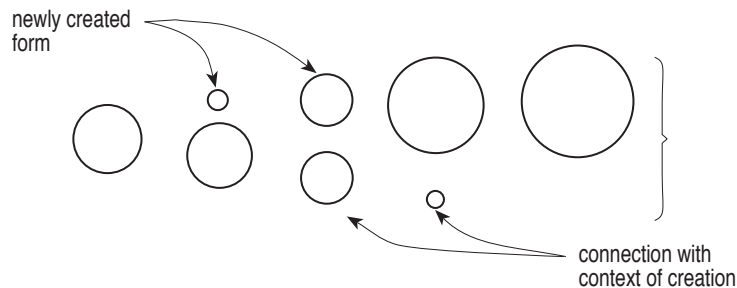
The Process of Creative Differentiation

These otherwise puzzling amnesias become quite understandable when we think of development in creative terms. Inherent to creative processes is a natural tension between the impulse to move toward form and to regress. Creative amnesias serve the important function of putting distance between the present and the seductive safety of a known past.

10   As we shall see, there is a point in creative process, once form is sufficiently established that reengulfment is not a concern, where these amnesias naturally begin to dissolve. Bit by bit, earlier realities cease being threats and become sources of renewal. An important thesis in Creative Systems Theory offers that we appear to reside now at this point in culture as a creative process (thus making theories such as this that include earlier realities as integral parts a possibility).

The creatively formed entity can be anything under the sun. In the four creative periodicities we'll be looking at, they are the piece of sculpture as a thing, individual identity, the shared interface of relationship, and culture as form.

In the second half of cycle the entity created begins to integrate back into its creative context to create a new and larger whole:

differentiation phase   integration phase
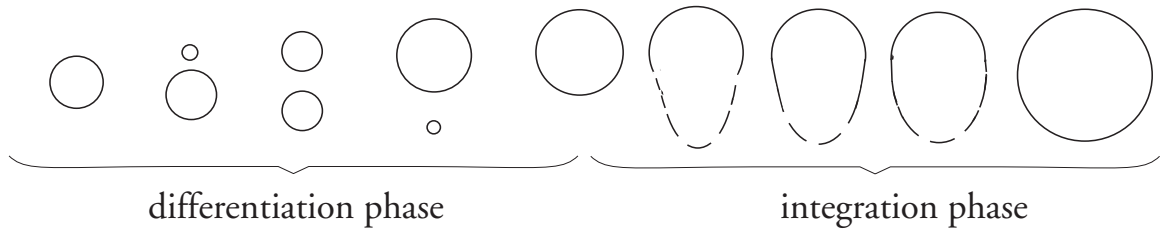
Differentiation and New Integration

When I'm learning a new skill, at first it's something separate and distinct. Then with time, it begins to become "second nature"; I experience it as simply one part of a new, expanded me. When an innovative idea arises in a culture, it creates excitement and controversy. It is something new and unique. Then with time, having been challenged and having matured, the idea becomes an accepted part of a now expanded cultural whole.

Although we often neglect this second half of the cycle in thinking about creation, integration is every bit as critical and fully creative as differentiation. In the first half of creation, truth is knowledge; in the second, it is wisdom. It's here that we become capable of seeing the larger picture of what we have been doing.

Very briefly, let's journey through the major stages as I think of them. We could easily spend many hours with each one. You might imagine this as like a wine tasting. We will spend a moment with each stage, then "cleanse our palate," and move on.
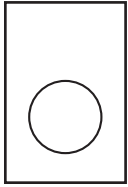
We begin in the beginning, in a womb world, before the appearance of creation as form. Truth here speaks the language of darkness, and the unbroken whole. The process is germination. The new impulse to form lies within, finding its first embryonic shapings, waiting for the right moment to break through into the circle of the known. In this stage, reality is organized according to our most elemental kind of knowing, the organismic, kinesthetic language of the body.

In a simple creative act, like my working on a piece of sculpture, this is the incubation stage. I may have an inkling that something is preparing to happen, but nothing is yet visible. If I'm sensitive, I can feel some of the primordial formings in my tissues—an attraction to a certain kind of movement, a feeling of contained shape, a gentle expanding.

In a lifetime, this is the prenatal period and the first few months of life. The unbroken whole speaks in the infant's relationship both to the mother and to itself. Even after birth, the bond to the mother is what is primary. The light of conscious volition, that evidence of first distinction of both self from self and self from other, is only preparing to awaken. The reality of the infant is an unselfconscious creature world. To feel is to act; there is no separation. Intelligence here is organized as patterns in movement and sensation, what Jean Piaget called sensory-motor knowing.

In a new relationship, this is the time before there is anything really visible as relationship. I may have a sense in my body of being ripe for a new connecting, of there being available space for something to happen into. I may have even met the person and felt something in her presence. But the spark of conscious recognition has yet to ignite.

In the story of civilization, we are in Stone Age times. For the most part, this is a reality of our distant past, though there are still a few places on our planet—in

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[11]   The significance of the nomenclature for stages is beyond our scope here. The terms refer to the fact that the stage-specific realities are reflected in specific patterns of organization along and around the bodily axis. (See *The Creative Imperative,* Chapter Five)

the New Guinea highlands, the upper Amazon basin, some places in the Australian outback—where this primordial reality prevails.

Here the unbroken whole is multi-layered, at once the tribe, nature and time. In early tribal realities, the "body" of the tribe is more accurately the primary organism than the individuals who compose it. If someone breaks a taboo of significant importance to be expelled from the tribe, a not uncommon response is for that person to simply go off and die. They don't need to kill themselves. To be excluded from the womb of the tribal whole is tantamount to nonexistence.

With this, truth and nature exist as, in essence, a single thing. Tribal deities are simply the faces of nature set animate: the wind, the mountain, bear, eagle, coyote. Health is one's degree of harmony with this living nature. Knowing is one's bodily connection in and as this whole.

And time similarly affirms this unbroken whole. The dance of reality is regarded as taking place in an eternally cycling present. Each generation and each turning of the seasons reenacts a timeless story.

EARLY-AXIS
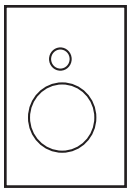
That's the first big slice. Let's move to the second. It is in this next reality that we feel most directly the magic and numinosity of the creative. Here, new creation steps forth from mystery into the light. With this dramatic movement comes a qualitative step in how we perceive the ordering of things. Truth shifts its primary mode of expression from the kinesthetic to the symbolic. Its most eloquent voices here are myth and metaphor.

In working with chisel and stone, this is the stage of first inspiration. What was before only a faint quickening is now born as visible possibility. This is a time for playing with images, feeling where in them the deepest power lies, trusting that power, and risking to give it first form.

In a lifetime, we enter the magical world of childhood. The first luminations of individual consciousness dance in a new kind of reality, one organized according to the laws of imagination. The critical work of the child is its play, trying out images of possibility on the stage of make believe and let's pretend.

In intimacy, this part of the story has its beginning with the first blush of real attraction. It's a magical time, filled with tentative first touchings and fantasies

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of the possible. Still largely strangers, our connecting is often more as numinous symbols than as simple mortals… a fair princess, a handsome prince.

In the story of civilization, we are in the time of the early civilizations: in the sacred splendor of ancient Egypt, the golden grandeur of Pre-Columbian Meso-America, the epic drama of early Olympian Greece. In more recent times, powerful examples of this mythic stage of culture could be found in places like Tibet (prior to the Chinese invasion) or Bali (prior to the tourist invasion). This is the time of culture's amazing first flowerings.

Something more than just nature—spirit, essence, magic, beauty—no single word quite does it, emerges as the new referent for truth. It takes its most direct expression mythically, speaking through epic tales and complex pantheons of major and minor gods. This is a time of rich artistic potency. Art is much more than decoration at this stage: it's the most immediate language for depicting the workings of reality.

MIDDLE-AXIS
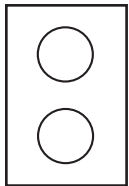
As we begin this next stage, we may easily feel that something is being lost. The preceding stage was magical and numinous. Now the predominant feelings are as easily as not struggle and conflict. But this stage is in no way less significant. The moment of first inspiration is indeed wondrous, but it is only the first step along the road to fully realized creation. After inspiration comes the necessary perspiration.

In this stage, truth shifts from the mythic to the domain of the moral and the emotional. The work progresses by virtue of heart and guts. Here we face the very real facts of limitation and human differences. We often retreat from these, either by hiding in the child world of golden fantasies or by forgetting that we ever had dreams. But ultimately there is no escape.

Struggle here is twofold: a struggle against limits in the world of form, and a struggle to establish limits so that the newly created form will not fall back into formlessness. By the middle of this stage, the power of the newly created and the power of the context of creation are experienced as equivalent. Reality exists as a polar isometric between at once opposite and conspiring forces.

As a sculptor, I first have to grapple here with the fact that there are limita-

tions both in what a piece of stone can be made to do and in what my talents will allow me to do. I easily rage against these limitations. In the struggle that ensues, two things happen. What I am capable of doing grows. And the original vision matures, reflecting both the fact of limitation and the esthetics and values of this new stage in creation. The new shapings are less ideal, less magical, but they are more solid and more expressive of the journey as a human story.

In a lifetime, adolescence reflects this stage—a heroic time, but also easily an awkward and troubled time. The innocence of childhood must be left behind. It's a time for challenging external limits and establishing inner ones. Emotions are strong. The adolescent's reality is morally ordered, composed of extremes of black and white. As with any such isometric dynamic, the extremes are at once in mortal combat and in total collusion. Adolescent reality is one logical contradiction after another. While the issue of independence from family brings fierce assertion, acts that on the surface express that independence as often as not function to at once guarantee parental response and involvement. While non-conformity is highly prized, it takes its most common expression in the rigid conformity of cliques and fads. The prize for taking on these struggled paradoxes is the experience of identity, self as increasingly established form.

In a relationship, its here that we begin to deal with the fact that we are not just symbols, but people—that we have real, everyday needs, real imperfections, and real human differences. The glow of the honeymoon period—with the other as dream image— necessarily fades. It's easily a very emotional time, with feelings vacillating with remarkable rapidity between love and antipathy. This is the stage at which we begin to grapple with questions of control and territory. It's here we decide who takes out the garbage.

In Western culture, this stage spans from the Roman Empire through the Middle Ages. Again, it easily seems that something critical has been lost. Historians often speak of major parts of these times as the "Dark Ages." If we wish to find cultures with elements of their dynamics in this stage, we need only to look to the places on the globe where struggle seems ever-present: Southeast Asia, the Middle East, Central and South America.

Again, however, although there is loss, this is not regression. These are times of struggle, but also times marked by significant advances. Within Europe, in the

political sphere we saw a new solidification and complexity of organization under kingly rule; in religion we saw the church step forward as an organized power and the establishment of formal moral codes; and in the economic domain we saw the linking of territories by roads and the establishment of formal structures of commerce.

As with this stage in the other periodicities, reality speaks in polar isometrics. Social structure is feudal, with landed lords and colonizers above and serfs and the conquered below. Thought is similarly split. With the ascendence of monotheism, truth is based upon one pivotal question: whether an act belongs to the sunlit domain of the good or to the opposing murky realm of evil.

LATE-AXIS
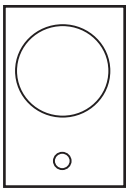
This stage is the last major reality in the first half of the creative cycle. We've moved from the mystery of the formless, through a reality defined by the magical appearance of possibility and first form, and then through the critical struggle to solidity of form. We can now give form its final touches. We have made the major choices; what remains is to perfect. The new creation moves more fully into the light. Truth in this slice of the whole is material, defined in terms of things that can be seen and measured.

In my work with that piece of stone, this is the stage of finishing and polishing. I've risked to engage that which is wanting to take form through the work and to grapple with the major practicalities of what's involved in the realization of that form. The work now sits before me as a "piece." My concerns here are with its surface layers—with detail, with finished appearance.

In a lifetime, this is young adulthood. The major tasks of establishing identity as individual existence find completion at this stage. Our twenties and early thirties are the one time in our lives when in good conscience we can say we know who we are. Identity is that which we've become as form. "I'm a therapist. I live in Seattle. These are my friends. These are by beliefs." We tend to regard the major developmental aspects of our forming as largely finished and to see the future as simply an additive extrapolation from this known form. "I'll ascend the ladder of success in my profession. I'll raise my kids. I'll reap the rewards of my labors."

In love, this is the stage of increasingly established relationship. The major

conflicts of being together have been sorted out. We've reached general agreement on the roles and boundaries of the relationship—who does what, how, and when. For the most part, we've stopped asking what our relationship will be, because it now is. Our attention shifts from big issues to details and away from the relationship to concerns in the outer world. We assume that things in the future will be pretty much just minor variations on what we've finally achieved.

In the evolution of culture, this is our most recent age, the Age of Reason and Invention. With it, moral and blood-bound truth has increasingly given way to a materially defined reality—a physical reality of actions and their concomitant reactions; a personal reality of individuality, intellect, and achievement; and a social reality of industry and economics. A central theme of this stage is that of completion. A core belief says that it is now only a matter of time until all of life's mysteries and all of humanity's problems are elucidated through the light of objective understanding.

TRANSITION
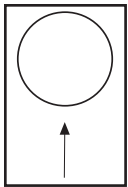
Although the journey may seem complete with this last most form-defined stage, in truth we are barely approaching its midpoint.[12] The new object of creation (the piece of sculpture, individual identity, relationship as thing, culture as structure and invention) has reached realization, but it has yet to be tested in any significant way. The second half of the creative cycle is marked by the gradual reconnecting of the new creation with the personal and social source and context of that creation. The necessary amnesias begin to fade, and we become increasingly able to see the new creation within the larger process of which it is, and in truth has always been, a part.

The word that comes closest to describing the task of this second half of the journey is integration. But this in not integration in an additive or averaging sense. In creative integration, with each stage, the two parts each become more, each changing and growing through their meeting.

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[12] This is midpoint with regard to the type of dynamic rather than time. Creative processes vary greatly in the amount of time spent in each stage, and the second half of creative processes that do not end in death are, in essence, infinite in length.

Note that the use of language is tricky when it comes to describing the dynamics of this second half of the creative cycle. Modern English is Newtonian, composed of objects (nouns) and descriptions of causal relationship (verbs).

What are the characteristics of experience as we move into the second half of creation? The key themes should now be familiar. A new kind of perspective comes to define reality. We find ourselves more and more able to step back from the process of creation, to see indeed that it is and has been a process, and to take mature responsibility in it. Truth becomes increasingly "post-material," no longer just that newly created object, but that which is new in more and more integrated relationship with the living world that gave birth to it. We begin to see how many things which before seemed very separate or even adversarial are, in fact, colluding partners in this creative dance. And we begin to recognize that, contrary to past beliefs, we will never be able to bring it all "into the light," to understand things "once and for all."

Rather than evoking remorse, this last awareness deepens and enlivens us, offering that we might live not just from knowledge, but from wisdom.

INTEGRATION

I finish that piece of sculpture and am met by the disturbing realization that the journey of its creation is far from over. It has yet to be placed in the world. What will happen to it? Will it do good, harm, be ignored, be destroyed? In another important sense, it has also yet to be placed in me. I begin to recognize that this process which I've looked on as the creating of a thing is, at the same time, a process of creating myself, and that much has yet to happen in that process. One of the most interesting dynamics I've recognized in my sculpting is that if a piece is of real significance, it is usually three or four years after its completion before I can say with any clarity what it was about for me. During this time, the piece works in me, at times challenging me. In the first half of creation, the conscious object of creation was the stone; in the second, it is more myself and the whole of my life.

In the story of a lifetime, integral dynamics begin to move foreground around the time of the mid-life transition, the point of passage into mature adulthood. The primary themes for the first half of development have been knowledge, skill

and self-definition. At life's midpoint, we begin to see that what we've been able to say about truth and identity are in fact only a small part of a larger picture. Big new questions present themselves, questions that can't be answered in the old ways—questions of purpose, of life. "Yes, I'm successful, but to what degree is what I do really me?" "And does it truly make the world a better place?" The central themes in life's second half are meaning and interrelationship. Truth shifts from identity as form and the either/or of self versus world to a third referent: the living relationship of self with self, and self with world.

In love, we may regard the finding of workable roles as an endpoint in the establishment of relationship. But if we hold to the reality of relationship as form, that which before was exciting becomes more and more lifeless. Interaction becomes habitual. We start to feel like objects to one another and to take each other for granted. The new challenge is to see beyond the material reality of roles to meet each other as whole people, unique and ever-changing. Commitment defined by form gradually gives way to a shared commitment to honoring what at any point in time is mutually most vital and true.

Today's culture reflects this larger reality. The parallels to smaller periodicities are striking. We are being challenged to become, in ever fuller ways, not just products of culture's creation, but conscious responsible choicemakers in that creation. The new questions in all domains are questions of context and meaning, questions of choiceful life in a complexly interconnected and ever-evolving world. If given but one word to describe what the future asks of us, it would be the word that best describes the core developmental task of the second half of an individual's life—wisdom.

These notions of creative patterning in time can be used in a variety of powerful ways. The most obvious is to help us better recognize the dynamic nature of developmental processes. This can be seen in how we've approached understanding history. Taught traditionally, history is framed additively and causally, in terms of things—leaders, wars, inventions—and simple mechanistic interaction—the signing of the Declaration of Independence "caused" the people to… History approached in this way can't help but be dry. It excludes questions of purpose, the "juice" of historical significance. A much more vital view of history results if we approach it in systems terms and, as we have begun to here, as a multi-layered creative dynamic.

The Creative Cycle

CREATIVE STAGES :

| Pre-Axis | Early-Axis | Middle-Axis | Late-Axis | Transition | Integrative Stages |

MAJOR PERIODICITIES:

A Creative Event -

| Incubation | Inspiration | Perspiration | Finishing & Polishing | Presentation | Becoming "Second Nature" (Integration of the Newly Created Form into Self and Culture) |

A Lifetime -

| Prenatal Period & Infancy | Childhood | Adolescence | Early Adulthood | Mid-life Transition | Mature Adulthood (From Knowledge to Wisdom ~ Integration of Self as Formed Identity with the Ground of Being) |

A Relationship -

| Pre-Relationship | Falling in Love | Time of Struggle | Established Relationship | Time of Questioning | Mature Intimacy (Relationship as Two Whole People Marriage of the "Loved" and the "Lover" within Each Person) |

The History of Culture -

| Pre-History | Golden Ages | Middle Ages | Age of Reason | Transitional Culture | Integral Cultural Maturity (Larger Meeting of the Form and Context of Culture) |

The practical significance of making such a shift is most apparent if we look to areas of "applied history" like political science. For example, although it is abundantly clear that a good-guys-versus-bad-guys approach to foreign policy is dangerously outdated, it is equally clear that just flipping to the other pole, thinking that all we need do is lay down our arms and love each other, brings us no closer to the answer. We clearly need new and subtler ways to think about global group dynamics, perspectives that can help us understand the very different policies that might be most vital and creative in different contexts. A Creative Systems perspective offers one way to begin making these kinds of discriminations. For example, it would suggest that conflict involving largely middle-axis peoples (where ideology is central and struggle may be inherent to identity) would call for very different kinds of responses than conflict where late-axis dynamics predominate (where ideological issues are usually secondary to issues of competition and economics).

Creative dynamics also work at much subtler levels than these broad brush-stroke stages. The diagrams below from The Creative Imperative illustrate how within Late-Axis culture we can see Early, Middle, and Late substages, and how we witness creative turnings with 25 to 30 year periodicities throughout cultural development.

Middle Ages (Middle-axis)	Age of Reason and Invention (Late-axis)	Transitional Culture

1500   1600   1700   1800   1900   2000

The High Renaissance (Early-axis ~ Inspiration & Discovery)	The Age of Empire (Middle-axis ~ Manifestation & Dominion)	The Age of Technology & Individualism (Late-axis ~ Definition & Refinement)
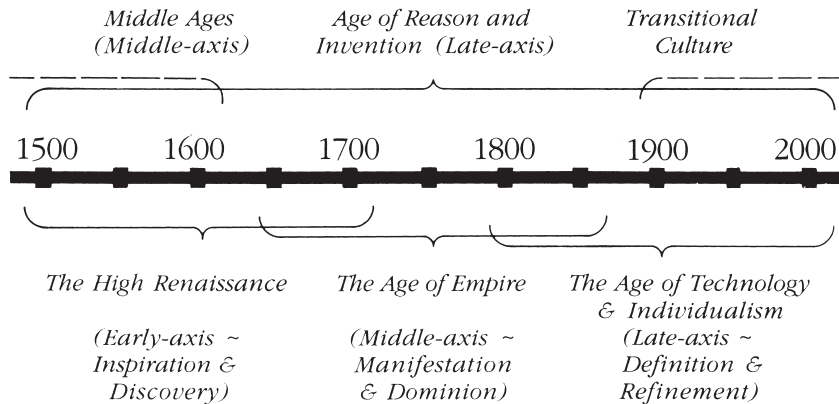
Major Subrhythms in Late-AxisCulture

The most important applications of these concepts relate to making sense of the time we live in and the challenges ahead. Although we have not yet experienced culture moving into its integrative stages, we have had this experience many times with smaller periodicities, such as creative projects or in a lifetime. If the theory's assertion of parallel dynamics is accurate, we should be able to use our experience from shorter cycles to guide us in confronting the critical choices that we now face.

I use this analogy with other creative periodicities in a number of ways, particularly in working with groups from different professions helping them develop new ways of thinking for their fields. As suggested earlier, the second half of formative process is marked by a gradual dissolving of the amnesias that separate us from earlier organizing realities. I often have groups examine the history of their profession, looking to understand how truth was ordered in its earlier stages. Then we

explore together what it might mean to think in terms of a larger reality within which these more time-specific realities have been parts.

Rise of the Women's
Movement (1970-1980)

Emergence of Rock-n-Roll
(1952-1958)

Home Computer Voted
Time Magazine
"Man of the Year"
(1982)

World War II
(1939-1945)

Vietnam War
(1965-1973)

Election & Assassination
of J. F. Kennedy (1960-1963)

Rise of Fundamentalism
& Political Conservatism
(1978-1984)

| 1940 | 1950 | 1960 | 1970 | 1980 | 1990 |

Korean War
(1950-1953)

Civil Rights Bill
(1964)

Economists &
Entrepreneurs as the
New Gurus (1983-)

"Beach Blanket
Bingo" (1956)

Rise of Country Western
& Punk Music (1976-1982)

McCarthy Era
(1950-1953)

Rise of Peace &
Ecology Movements
(1965-1975)

Election of
Ronald Reagan
(1980)

Birth of Existentialism
& Surrealism
(1925-1940)

Assassination of
Martin Luther King Jr.
& R. F. Kennedy (1969)

Early-   Middle-   Late-   Early-   Middle-   Late-

Rhythmic Fluctuations in the Last Half Century

A brief example illustrates the value of this exercise. A common call in new education is for "whole person" learning—education for body and spirit as well as the intellect. But framed in conventional terms, the notion really isn't very helpful. Does including body and spirit in education mean simply having prayer in school and expanding athletic programs? Clearly something more is being implied. Thinking in terms of the greater whole of these concepts through time offers a way to better delineate the vision. Spirituality includes present religion, but equally the primitive's reality of nature as spirit, the magic of myth and symbol, and the

spirit of the scientist in search of the answers to life's mysteries. Spirit as the larger whole of these sensibilities, the story of the various ways we have understood the generativity and connectedness of things, is indeed a most appropriate cornerstone for future education. Similarly, while the body is anatomy and physiology—the reality of our latest slice in culture—it is equally emotion and, primitive to that, a fundamental kind of knowing. The body we would want to study in new education is the greater whole of these—the body as life, the body as something we are, as well as something we have.

Often in talking with groups, I will work with the analogy between our time in culture and the parallel creative period in personal development—the time of the mid-life transition. A close look at the handful of developmental tasks that most define the mid-life challenge reveals that they describe quite elegantly the critical tasks of our time culturally. Reflecting on these tasks helps bring detail to our understanding of what is being asked of us now and in times ahead.

To use the developmental concepts in the theory, we must learn to "visualize" how one creative periodicity plays within another. Because we are working in four dimensions, this is inherently tricky (we can only really visualize in three). But the subtleties of understanding well reward the effort. Creative progression in any one periodicity is infinitely interwoven with and relative in each other periodicity. The experience of being any particular age is relative to one's stage in cultural evolution. (For example, in early tribal societies, with individual identity secondary, there is little need for adolescent rebellion; one makes ritual passage directly into adult reality.) Similarly, the experience of doing a piece of sculpture or being in a relationship is predictably relative within both the formative rhythms of culture and an individual's place in the creative process of his or her own development. Appreciating these interrelationships makes possible a direct and often very simple comprehension of all manner of otherwise elusive phenomena.

(See TCI in its entirety with particular attention to Chapter Twelve.)

Creation as Pattern in Space

"[We need] new and more comprehensive theories, which without contradiction will take care…
of the diverse facts [within] our traditional incompatible doctrines."

—*F.S.C. Northrop*

Systems pattern creatively not only over time but also in the here and now between parts of a system. Creative Systems ideas thus provide a way to understand deep interrelationship in complex systems, something of ever greater importance as our critical questions become more and more interdisciplinary and less amenable to a gears-and-pulleys analysis.

Detailed explanation is beyond our scope here, but a few brief examples will help illustrate creative patterning in space as opposed to time. In a corporate setting, for example, we can see that different functions correspond in their dynamics to the strengths and tasks of the various creative stages: R & D to the reality of Early-Axis, manufacturing to the reality of Middle-Axis, and marketing and finance to the reality of Late-Axis. In education, the traditional division of humanities and sciences reflects the classical separation of creation's more archetypally feminine left hand and its more archetypally masculine right. Going further, we can map our different academic disciplines, as well as realms such as religion and business often seen as outside academic concern, in terms of the part of the creative whole to which each most strongly gives voice.

This concept of creative patterning in space has been most fully developed in the area of personality difference. (See *The Power of Diversity: An Introduction to the Creative Systems Personality Typology*.)

The concept of creative patterning provides a highly dynamic perspective for understanding the workings of personality. It is based on the observation that different people seem to inhabit preferentially different parts of the creative whole. For example, a person who finds greatest satisfaction in the world of finance will likely be found to carry a major part of their aliveness in the more manifest and material (Late-Axis) parts of the creative cycle. In contrast, someone who finds greatest excitement in things imaginative, say a visual artist or someone who loves

working with children, would likely to be found to inhabit preferentially more germinal (Early-Axis) parts of the whole. A person whose strongest feelings center around values like hard work and moral rightness would be expected to live most in the middle parts of the cycle (Middle-Axis).

A Creative Systems framework offers much finer discrimination than the bare stages outlined in the preceding section. At a next level of detail, we can talk about the upper and lower poles, and inner and outer aspects of each axis. Looking to personality styles, someone like a priest or a teacher might be seen to occupy a Middle-Axis, upper pole, inner aspect cultural function (the axis most concerned with issues like values and community, in its both softer—more inner aspect—and more lofty—more upper pole—manifestation). Someone like a politician or a manager in business might occupy the same axis and pole, but hold more of the outer aspect of this reality (just as lofty, but "harder" and more in the world). (See TCI for a more detailed look at these finer discriminations.)

Proceeding in this way at subtler levels of distinction, we can use the theory to make highly detailed discriminations while avoiding the categorical and condemning posture of more traditional nomenclatures. The unique gifts of a particular style are as important here as the partialities. And the life of things stays always central; what we are exploring is how people organize themselves as living process.

Creative patterning can be used in an analogous way to reframe our understanding of parts in any living system—from roles in a family, to functions in a community, to the relationships between countries and ethnic groups in our increasingly global world.

Along with creative patterning within systems, Creative Systems ideas can help us understand how systems interlink to make larger systems. Recognizing multiple levels of systemic interplay is one of the most powerful tools for understanding the more dynamic, systemic reality that is reordering every profession.

The notion of bridging polarities helps paint this larger picture. When working with groups from particular professions, I often begin by asking group members to list their domain's major defining polarities. A few examples:

Business
management/labor
business ethic/human ethic work/play
logic/intuition
business/community

Religion
God/humankind
sacred/secular
virtue/sin
body/spirit
us/them

Education
teacher/student
right answer/wrong answe
intellect/feelings
school/not school
young/old

Medicine
physician/patient
health/disease
mind/body
personal/environmental health
haves/have nots

We then take time with each polarity, looking for ways of thinking large enough to embrace it in a single understanding. We look both at how such larger perspectives would reorder understanding (inherently they necessitate a dynamic systems view of reality) and how that profession's traditional physical and institutional structures would need to be reordered to be responsive from this larger way of understanding. Finally, we turn to how the creative systems described by each polarity interplay as part of the larger systemic challenge and the needed new defining reality. By

thinking in terms of multi-level and multiplying interplaying bridging dynamics, we derive a crude, but powerfully comprehensive picture of the territory ahead.

(See TCI in its entirety with particular attention to Chapter Twelve and NW pp. 192-199.)

The Biggest Picture

"Call the world, if you please,
The veil of Soulmaking,
Then you will find out
the use of the world..."
                                        —*John Keats*

Creative Systems Theory applies most obviously and usefully to the human sphere. But the concept of creative causality has a broader relevance. It defines a general, unified theoretical perspective.

In this biggest of "big picture" views, formative process in its most elemental sense—the basic dynamic of "becoming and dis-becoming"—is seen as reality's fundamental "building block." The different levels of existence—inanimate, animate, and human—are seen as reflecting leaps in organization within this single fundamental process, each level distinguished by a particular "invention," a "creative multiplier" that has resulted in a quantal increase in possible creative capacitance. Between the inanimate and the animate, this invention was reproduction, offering creative reorganization, through mutation and genetic recombination, at regular intervals. Between the animate and the human, the creative multiplier was conscious awareness, making possible creative leaps at a rate limited only by our capacity for new insight.

The concept of creative stages applies only to human systems, at least as delineated here. But it is intriguing to notice that the cutting-edge ideas in both the biological and physical sciences describe realities very consistent with the basic notion of creative causality.

(See NW 163-179.)

Grappling with the New Questions

> "We are at a very exciting point in history, perhaps a turning point."
> —*Nobel Chemist Ilya Prigogine*

Let's return to the questions that introduced this booklet. I commented then that Creative Systems Theory offered a way to at least begin addressing each of them. Below I've pointed very briefly toward how each might be approached from a Creative Systems perspective with references to pertinent written material.

How do we relate effectively with other nations and cultures in a post cold war world?

The concept of whole-system relationship offers a broad conceptual frame for the task of moving beyond the polar dynamics of allies and evil others (this includes notions like aliveness as referent, capacitance, symptoms, violence, and more dynamic conceptions of boundary). The notion of creative patterning in space and time can be used to more subtly understand cultural differences and their implications in global policy. (See TCI pp. 386-391; NW pp. 59-73.)

The chart on the next page from *The Creative Imperative* outlines average creative stage by region.

How do we as individuals best relate to each other in times ahead?

Whole-person relationship defines a new set of relationship skills and sensibilities. (See TCI pp. 311-348, NW pp. 39-58, and the attached article "A New Meaning for Love.")

Will the Information Age, in fact, make us more informed?

If we are not to drown in information, we must learn to think more systemically (in terms of dynamic relationship rather than piles of data), in ways that are more purpose-centered (purpose is ultimately what orders information in a system that is alive), and in ways that differentiate purpose (that give us a pattern language for meaning). Creative Systems Theory offers a way to begin doing each of these things. (See TCI in its entirety with special attention to Chapter Twelve.)

Creative Distribution of the Adult Population in Various World Regions

	Primitive Culture	Early Culture	Middle Culture	Late Culture	Transitional Culture

North America

Europe

The U.S.S.R.

Asia

Central and
South America ✱

The Mideast

Africa ✱

Bali and Tibet ✱

New Guinea
Highlands
and The
Amazon Basin ✱
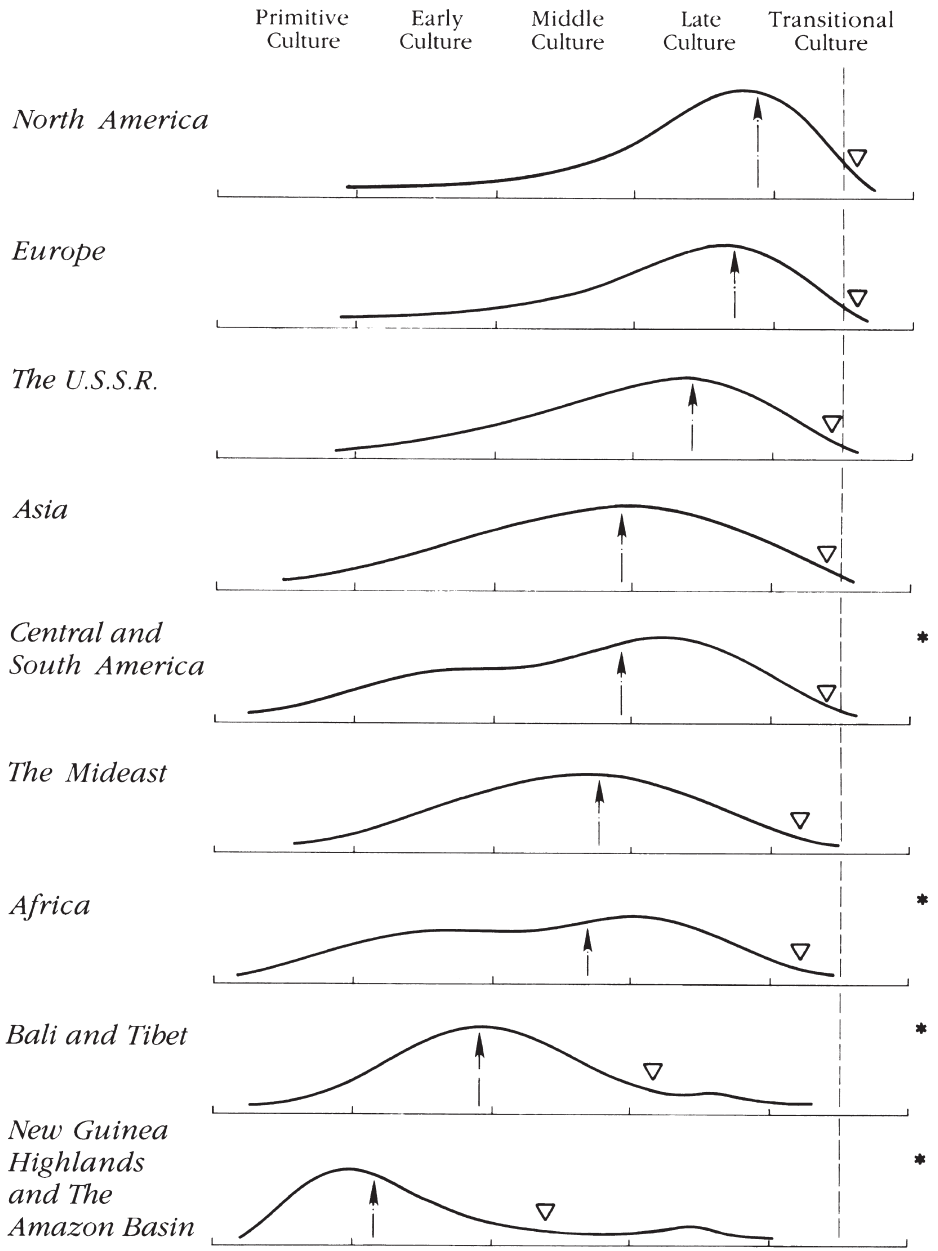
Spectrum
Mean
Edge

✱ The bimodal curves are a function of colonial influence.

57

How do we make sense of today's new uncertainties?

Some of today's uncertainties reflect that as always there are things we don't yet know. Others reflect that we are in times of major transition—"skin shedding"; in every sphere we are feeling our way in new territory. But much reflects the nature of emerging experience. A Creative reality is inherently meta-determinant. Bridge the personal and cultural psyches, and uncertainty becomes one of reality's fundamental characteristics. (See NW pp. 113-118.)

How do we best define progress for times ahead?

Progress must be defined in increasingly mature, integrative terms. This means that our thinking about the future must bring to bear all of who we are as complex systems—our bodies and souls along with our possessions; our relationship with and in nature as well as our separation from her; our connection with children and the more primitive in ourselves and in culture along with those aspects of ourselves that are more manifest. This also means recognizing that there is a finiteness to our planetary sphere. Creative Systems Theory provides a big picture perspective for weighing this complexity of "apples and oranges" phenomena and for understanding how the acceptance of mature limits can make a system more rather than less. (See TCI Chapter Twelve along with the attached article "The Wisdom of Limits.")

What is intelligence?

Intelligence expresses the whole spectrum of means by which we organize experience. Creative Systems Theory offers a comprehensive perspective for understanding our different intelligences, not just as options on a menu, but as creatively specific capacities. Because these concepts of intelligence are integral parts of Creative Systems Theory, they can be used to address not only the intelligence of a particular individual, but also patterns of intelligence as they relate to personality style, developmental stage in a lifetime, gender, culture, and more. (See TCI pp. 15-28; NW pp. 106-113; or the attached article "Intelligence and the Theory of Creative Causality.")

How do we rethink organizational structure for times ahead?

Creative Systems Theory suggests that the challenge is learning to think about organizations as creative systems. When organizations are approached in this way, the theory can help us understand the kinds of systems appropriate to specific cultural stages, how organizations grow and change, the evolving creative relationship between different kinds of roles and functions within an organization, the interplay between personality style dynamics and all these variables, and more. (See TCI Chapter Twelve.)

What does it mean to be a moral person?

One of the most important challenges of our time is how, in our increasingly multi-cultural world, to step beyond moral dogmatism on one hand and "different strokes for different folks" moral avoidance on the other. Creative Systems Theory helps us at least begin by redefining morality in creative rather than form-defined terms—in relation to concepts like aliveness, capacitance, symptoms, and violence—and by offering a framework for understanding why different people, as a function of such things as personality style and ethnicity, will tend to approach questions of morality in different ways. (See NW pp. 120-126.)

How do we make coherent sense of our time?

Our times present a diversity of challenges, some technological, others specific to particular peoples and places. But Creative Systems Theory suggests that beyond these more specific challenges lie questions and concerns born from our unique time in culture as a creative process. The essential crises of our time are all fundamentally crises of purpose, crises demanding that we take a newly mature responsibility in the story of culture and engage together in writing its next chapter. (See TCI Chapter Twelve and NW in its entirety.)

In Conclusion

"Things should be made as simple as possible, but no simpler."
—Albert Einstein

    This is by necessity the most "bare boned" of introductions. While Creative Systems thinking can be quite challenging on first encounter, with some familiarity most people find it quite "friendly"—a way to address simply and directly a multitude of questions impossible to address fully in other ways.

Appendix

SUMMARY CHART:

Creative Causality Contrasted with Traditional Views of Causality

ARTICLES:

(A few articles by Charles Johnston that help fill out Creative Systems concepts.)

"A New Meaning for Love"
(***In Context****)*

"The Wisdom of Limits"
(***In Context****)*

"Strung Out on Aggression"
(***Media and Values***)

"Intelligence and the Theory of Creative Causality"
(***Human Intelligence Newsletter***)

SUMMARY CHART:

Creative Differentiation
(From ***The Creative Imperative***)

Creative Causality
(CONTRASTED WITH TRADITIONAL VIEWS OF CAUSALITY)

	MYSTICAL CAUSALITY	MATERIAL CAUSALITY	CREATIVE CAUSALITY
1. Change	Fated, synchronistic, God's will	Laws of simple cause and effect (Balls on a billiard table)	Creative, generative
2. Connectedness	All is One	Atomistic, all is separate	Relationship is a function of co-participation in a creative system.
3. Determinacy	Mystically determinant	Mechanically determinant	Meta-determinant (patterned, but with uncertainty an inherent ingredient)
4. Truth	Formless, magical, omniscient, omnipresent	Defined by objective, repeatable observation	"Aliveness"…truth is an expression of what is timely—the living, growing edge in a creative system.
5. Relationship of Truth to Time	Truth is timeless, the "perennial philosophy"	Truth is separate from time (form-defined, fully describable with the three spatial dimensions)	Truth is relative in time; how we experience reality is a function of its place in each of its defining creative periodicities.
6. What Determines and Limits the Possible	Nature, karma, God's will	Individual will, skills and abilities, Newton's laws of motion	"Capacitance"…the amount of aliveness a system is capable of embodying per unit time.
7. Relationship of Polarities to Truth	Identification with unity	Identification with duality	A "third space" perspective: Unity and duality function as dynamically complementary voices in creative processes.

8. Ultimate Goal	Being, transcendence, enlightenment, salvation	Success, victory, objective understanding	A variety of goals have time-relative meaning; the "meta-goal" is simply increasing capacitance.
9. How Reality is Patterned	Pattern reduces to oneness	Discrete categories of causally related truth	Reality is creatively patterned, a multi-layered, multi-leveled open system of interplaying formative processes.
10. View of History	Truth is eternal (or often that we have lost the way)	History is accumulative, defined by an ever-rising vector of progress	Truth goes through discrete creative stages. Stages in the first half (differentiation phase) of cycle involve both new capacities and an amnesia for realities one has moved beyond. In the second half (integration phase) these amnesias dissolve to reveal the larger process one has been involved in. One thesis in Creative Systems Theory is that we are just now moving into the integration phase of culture as a creative process.

A New Meaning For

Love
By Charles M. Johnston

What it takes to love now as whole people

Charles Johnston is a psychiatrist in private practice and director of the Institute for Creative Development, a think tank and training center in Seattle. The ideas in this article about the evolution of intimacy are expanded in his recently finished book, The Creative Imperative: A Transformational Theory of Human Growth and Planetary Evolution.

TODAY WE SIT AT THE CUSP of a very important change point in cultural history, and one of the areas where change is most personal and challenging is in the realm of relationship. There is a quantum leap occurring in the meaning of love. The experience we call love is changing significantly both in its nature as a felt experience and in the forms that it takes in our daily lives. The changes are manifesting not just in our intimate relatings, but in every aspect of human interconnection – in the structure and purpose of the family, in friendships, in our social identification in community, nation and biosphere, and integrally with these, in our relationships to ourselves. Today we must bring more to the experience of love than has ever before been a human need or capability.

What is this leap? To answer that let's begin by looking at intimate love, for this is where the changes are closest to us in our daily lives. This change in our concept of love is illustrated by my reaction to the dilemma of a couple who came to me recently for therapy. Both people were mature and showed a high degree of sensitivity to each other. They were accustomed to security and contentment in their relationship; but lately they had begun to argue, and resentment and fear were entering their relationship. While I empathized with their pain, I also felt a sense of respect, fascination, even excitement. A part of me was perceiving their conflict not as a problem, but. as an expression of an important new kind of possibility in love. The more I listened, the more I felt that their frustrations and pain were little, if at all, a function of personal failings, but a direct function of the integrity with which they had risked to live their relationship. They had begun to push into the cultural frontier, and their fears seemed quite appropriate to the degree of unknowness inherent in these new challenges. What is this frontier? Put simply, it is the ability to love as whole people.

To fully understand the implications of this attempt to love as whole people we might reflect on what love in our culture has been. The intimate bond has been a dynamic in which two people, each functioning as halves, come together to create a whole. In its right time, it has offered a rich and beautiful kind of connecting. My grandparents exemplify this; their purpose in love was to complete each other. They met in grade school and were inseparable throughout their lives. They succeeded to such an amazing degree in being the mythic brave knight and fair princess for each other that when one died, the other followed within months. The primary "organism" of their existence was quite literally the whole created from the two of them together.

Today, something different is beginning to take place. We are coming to relationship as whole people. Bonding as two halves is a hard security to surrender, but increasingly we are finding that there is really no choice. More and more, the image of "the other as answer" is ceasing to work. When one part of us tries to make someone else our solution, another part quickly acts to undermine it. We find ourselves creating struggle, doing something to put the other off, anything to regain our embryonic yet critical connection with a new sort of completeness in ourselves. Increasingly it is possible to love only to the degree to which we can find ways to relate to others while remaining whole.

SOME CULTURAL HISTORY

This shift in the reality of love is subtle, and immensely significant. To understand it we need to view the present from the perspective of our cultural history. We tend to think of love's dramatic dance as, for better or worse, pretty much the same throughout history. Love is love. In truth, the experiences to which we attach the word *love* are profoundly different in each epoch in the history of our culture.

Two kinds of wholes define and organize our experience of relatedness. Each has evolved in specific ways over the course of human time. The first I call the sphere of social identification. This is the largest interpersonal perimeter
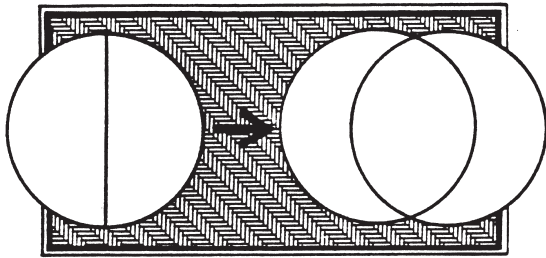
in which we feel a sense of belonging. Through the course of history, we have progressed into ever-expanding spheres of social identification – from our origins in the tribe, to clan and village, eventually to nation state, and now increasingly to the globe, to a social identity with the whole of humanity.

The second organizing whole I call the sphere of personal identification. It is the smallest personal perimeter that has independent meaning in our experience. It is this perimeter I'm referring to when I say that we are just emerging from a time in which two individuals as halves come together to create love's whole. If we think functionally rather than anatomically, the smallest personal perimeter with independent meaning has always been larger than the sphere created by our individual bodies.

We will have to surrender the belief in that magic someone who will let us live happily ever after.

The sphere of personal identification progresses through a specific evolutionary sequence, but the direction of movement is opposite to that of social identification. With each stage in culture less people are needed to establish this sphere. In tribal reality, the tribe marks this perimeter as well as that of social identity. The "body" of the tribe rather than that of individuals defines the primary organism. If someone breaks a taboo of sufficient importance to have them expelled from the tribe, the common response is for the person to simply go off and die; to be excluded from the tribal whole is tantamount to nonexistence. The sphere of personal identification, like that of social identification, progresses through a specific evolutionary sequence, but here the progression is from tribe, to clan and large extended family, to smaller and smaller extended family units, and finally in this century to individual relationships and the nuclear family. With each stage in culture, less people are needed to establish this sphere. In this decade, with childbearing increasingly a question of choice, the smallest personal perimeter that has meaning to the individual has shrunk from the nuclear family to the couple.

We can follow this progression in the domain of love by examining how intimate pairings have been chosen in different stages in the evolution of culture. Initially, the tribe was the functional arbiter for this decision: marriages might be decided upon before birth, or arranged sight-unseen between individuals of different tribes to establish bonds of peace or allegiance. In the middle ages troubadours idealized romantic love, love as individual choice, but it was still much more poetic fantasy than practiced reality. Decision-making was in the hands of large extended families, and marriages were arranged by parents, grandparents and elders, frequently with the guiding hand of a village matchmaker. With the age of reason, the next reduction in the size of the sphere of choice took place, shifting to more localized extended family units. Only in the last few generations has the idea of love as individual choice – the idea that one might choose a mate without or even against family approval – become commonplace.

We are now beginning the next step in the progression of the sphere of personal identification: the ability to experience the whole, all of the parts of human organization, within the flesh of a single person. Evidence of this shift is all around us. We see it in our increasing reluctance to define ourselves in terms of pre-established sexual roles. We see it in the variety of forms we now accept as valid for relationship.

Like the shift in social identification to the global sphere, this shift in personal identification to the individual is a particularly momentous transition and one that marks an important creative end point – we are beginning to embody the largest sphere of human relatedness (the globe) and the smallest (the individual) at the same time! This step is both very exciting and profoundly challenging. It makes a human completeness possible that we have never known, and it demands that we bring more to the experience of love than ever before. As with earlier shifts, we will either come to relate within this new reality of love or we will not relate at all.

LOVE AND THE INDIVIDUAL

How must we change to succeed within this new paradigm of love? First, we will have to surrender the dream of "other as answer", the belief in that magic someone who will let us live happily ever after. Bonding in this polar sense is shifting from being interpersonal to being intrapsychic. Increasingly, women are developing qualities, such as assertiveness and worldliness, traditionally associated with the masculine. Men are exploring their sensitivity, their intuition, and their feelings. The kind of completeness that in the past has resulted from bonding with the opposite sex, will increasingly be found only in a new kind of intimacy with oneself.

Second, we will have to develop a dramatically increased capacity for sensitivity to the individuality of the persons we are loving and of ourselves. Until recently we have had available to us quite specific formulas for how to be

in love. Society provided us with a list of appropriate sex role behaviors, and if we learned them adequately the likelihood of finding a pleasurable match was quite high. Today, as we each in our own way grapple with what it means to be a whole person, one of the main things we are discovering is just how different we are. Successful intimacy now requires the courage to meet a unique person, and with this the courage to learn about and share the ever-changing reality of one's own uniqueness.

Third, and most fundamental, if we are going to find new options in relationship, we are going to have to redefine love and reexamine what makes an experience love. Our old measures no longer work.

When working with a couple that is struggling I often ask each person what in essence they want from the conflict. The most common response I get is that they want to know the other loves them. But when I ask what might offer the proof they are needing, there is a startling realization – they discover that the things they *think* they want, that might provide *proof* of that love, are things they really don't want at all, and could not be given even if they did – things like wanting your partner to always be there, to always think you're wonderful, to make it so life would never hurt. Those ideals for love are outdated and stand in the way of love more than they inspire its realization.

To move past the two-halves-make-a-whole reality of love we must rethink how we measure love. Our new measure is at once simpler than our customary notions – and decidedly more challenging. I propose that ultimately what we are wanting to measure in love is the aliveness shared by two people, the degree to which a connecting is creatively vital. In a sense, love is simply what works. When something works, it feels alive; something feels alive when it is creatively generative. We feel love when our relationship creates new life, when one plus one becomes more than two.

From this new perspective the struggling couple's question of "do you love me" can fall away and be replaced by two much more direct and workable questions: 1) what is truly creative between us? What in our relating to each other makes us each more? 2) If we were to let love be manifested in whatever way would most honor what is uniquely alive between us, what would it look like? Often, the most powerful thing I can offer a couple in conflict is the simple permission to respect what works in their relationship, permission to ask quite consciously how often they really like to be together, permission to own what they really like to do when they are together and then to honor it. In this new definition, love has nothing to do with the amount of time two people spend together. Love depends instead on the degree to which that time spent together reflects what is creatively true, the degree to which it fully honors life.

This way of defining relationship asks that we look beyond the form of love to what organizes it as feeling. It could lead the struggling couple to any of a myriad of different options, each of which might be love's most potent expression. They might realize that committing themselves to an exclusive, life-long relationship would be the most creatively vital thing they could do. Or they might realize that the amount of time they wanted to spend with each other was significantly less than they had thought, that there was a need to spend more time alone or with other people, perhaps even other lovers. If this needed separateness could be honored they could continue loving each other, perhaps even more deeply than before. If doing it would demand too much vulnerability, then all that would be left to them would be the two polar options of the old reality – to stay in the safety of a relationship that makes them less, or to separate completely using animosity as a way to explode apart the two halves of the whole.

LOVE AND THE SPECIES

Love in this expanded sense demands a profound new maturity. I think of our present cultural changes as analogous to the passages that occur in the life of an individual as he moves into mature adulthood. We are moving into the adulthood of the human species. We are stepping beyond responses that have been fundamentally adolescent in their dynamics and are engaging a profoundly more adult reality. Politically we are seeing that to survive we must leave behind our adolescent view of a world made up of good guys and bad guys and accept the much more complex and multifaceted reality of a common humanity. Economically and ecologically we are having to face the very adult fact of global limitations; if we don't take responsibility for the welfare of our very fragile planet we may not have one. In realms where we are accustomed to relying on experts – education, medicine, law, economics, politics – we are being forced to realize the very big difference between expertise and final truth; we are learning over and over that in the end we must each be responsible. In a similar way, spiritually we are finding ourselves questioning the image of an all-knowing father god (with its accompanying beliefs in absolute moral law and a chosen people) and looking toward more personal and challenging meanings for the sacred.

What we want to measure in love is the aliveness shared by two people.

Love in this new sense is a function of this same critical passage. As with the arrival of adulthood in the individual, the human species now has much greater possibilities for choice, and along with that, a substantial increase in responsibility. In earlier times we didn't have the freedom to choose our mate. What we did have was tradition and community, forces that made it so that pair-

ing, even pairings between strangers, generally worked. Today we can choose not only the "who" of relationship, but any of a multitude of forms. In exchange we find ourselves responsible in a reality in which success of intimacy rides directly on the courage and sensitivity we bring to it. Similarly, children in our past were a given. But with this lack of freedom came an extended family system that provided much of the decision-making and care involved in child rearing. Today we have a choice as to whether or not to have children, but the old support systems have disappeared. Raising children in our rapidly changing, often impersonal world demands an almost super-human level of commitment, love and skill. Thus, the new paradigm of love is demanding that we leave behind the innocence of adolescent perception and meet love for the immensely powerful and challenging dynamic that it is in its adult fullness.

WHY HAVE INTIMATE RELATIONSHIPS?

In looking ahead into this time of new maturity, I am especially fascinated by the question of what will serve as the glue in the bond of intimacy. The primary glue in the past has been precisely the "two-halves-make-a-whole" dynamic that we are leaving behind. This has been the central force in both the pragmatics and passions of love. Our ability to reliably add to each others' lives has been based on the inherent complementarity of interlocking sex roles, and the experience we most associate with love – the magnetism of romance – has been a direct function of our polar halves and the electricity that inextricably links them.

With the individual coming to embody the whole, what will be the new basis for love?

With the individual coming to embody the whole, what will be the new basis for love? It is a critical question, for on first glance it appears that just as we are coming to the place of greatest potential for fully personal intimate love, we are losing any reason to risk it. Will men and women in the future really have enough to offer each other to justify what must be put into love, or the commitment necessary for healthy child rearing? If men can embody the feminine and women the masculine, and if each is able to perform most of the tasks that used to be the others' province, is there sufficient motivation for intimate bonding? Clearly there is still sex; but for the task of really deep bonding our erotic touchings are rarely enough.

As I see it, there are a number of pieces in the answer to this question. One thing that will certainly help is our growing acceptance of options in intimacy. In a polar real-

ity, love is an all or nothing proposition – either you love someone or you don't. It's a total giving over. The increasing flexibility of the forms associated with love will help us allow relationship to be, as it must be, a process, a gradual and ever-evolving exploration of the ways of being that are uniquely right for two people.

Second, while we are surrendering much that has made love possible in the past, our capacity to nurture love – the capacity to deal with uncertainty, to really experience another, to take responsibility for our actions – is growing. We are becoming capable of embodying more aliveness, of being creative in ever fuller ways with each other. Thus, while the polar magnetisms will not be absolute in the ways to which we have been accustomed, we will be more and more capable of giving to the affinities we do feel the risk and commitment necessary to have them blossom as meaningful love.

A third key realization is that sexual equality offers something very different from sexual equivalence. Wholeness in a woman results in a whole woman; in a man it results in a whole man. I find it helpful in understanding this integration process to think in bodily terms. One of the most striking things that occurs in the process of personal integration – a woman finding her masculine, a man his feminine – is a marked increase in the intimacy that a person feels with his/her own body. One then finds one's experience increasingly rooted in the essential gift of gender. From this new place, one can leave behind sexual stereotypes, and at the same time be moved by the particular sorts of beauty and power to which being embodied as a man or a woman can offer special access. New possibilities of complementarity and mutual appreciation are opened, based not on roles, but on our most intimate experience of ourselves.

APPLICATIONS AND IMPLICATIONS OF EMBODYING THE WHOLE

Can we take these notions about intimate love and our capacity to embody the whole and apply them to other manifestations of love – to the love between parents and children, the love that bonds friends, the particular love that links a teacher and a student, the bonds of community, the experience of divine love?

Let's first examine vertically organized relationships where one half of a polarity is viewed as above, the other below. The bond that organizes the relationship between parents and children has changed in very dramatic ways within just one generation. The parent/child bond is, at least in its inception, quite polar – the infant is helpless and can exist only by virtue of the care and knowledge of the adult. In the past we never really transcended that polar organization; we got older and challenged the authority of our parents, and in time we had children ourselves. While growing up might seem like becoming whole, more accurately it was an exchange of the child side of a polar pair for its adult complement.

Today, children are beginning to experience and state their uniqueness in a way that is really quite new. In addition to classical rebelling, there is a growing capacity for real individual identity. As with any change in a polar dynamic, a commensurate growth is happening on the other side of the equation: parents, particularly mothers whose bond to children has been most total, are saying, "Yes, children are a rich part of my life, but they cannot be all of my life." On an even more fundamental level both men and women are realizing that it simply no longer works to assign the entire child-half of the polarity to children. To be as creatively vital as we must in today's changing world, the "child" must be a living inner part of each of us.

This same process of a gradual connecting and infusing of the reality of upper and lower poles can be seen in other vertically organized relationships. In the educational sphere we are seeing changes in the relationship between teachers and students, a recognition that we both teach and learn from each other. It is dramatically evident in the realm of leadership. It used to work quite well to think of bosses and workers, politicians and populace, experts and ignorants, as occupying fully separate domains. Today we are recognizing that for leadership to be effective, we must find more participatory forms for its enactment. We are having to accept that it is simply no longer an option to abdicate responsibility in either our personal or our collective relationships.

Changes in the realm of divine love are precisely parallel. The age old polarity of omniscient lord and obedient supplicant is giving way to a reality in which we are being challenged from above to accept the power and responsibility of our personal divinity and from below to realize the spiritual not as a separate etheric realm, but as simply one expression of the fullness of life.

We can also see a parallel transcending of polarities in those human bonds that organize more horizontally. For example, we can see an important shift happening in the meaning of friendship. In the past, allegiance was always an important element – a friend is someone who is "on your side". Now we are increasingly wanting friends who are fully themselves, who are equally willing to applaud our courage and challenge our frailties. In the larger sphere, we see dramatic changes happening in our experience of social identification. Until this century, community had a central place in people's lives, but in the past few decades this has become just a memory for most of us. Today we are beginning to remember the importance of community, but with an important difference: we no longer need a polar *other* – other religion, other ethnicity, other social class – to define our identity in community. The link here is the new whole of social identity – for the first time we are experiencing our identity as a planetary community.

The ability of an individual to embody the whole represents a major transition point in the evolution of the human species.

If our recognition of these evolvings is to creatively contribute to their realization, it is essential that we understand and be humble to the magnitude of the changes with which we are dealing. The ability of an individual to embody the whole represents a major transition point in the evolution of the human species. It is an exciting time in the story of relationship; it is also an awkward, in-between time. We are infants in these changes. At our deaths we will likely still be children in them. They are challenging us to a qualitative increase in our capacity for aliveness and our ability to connect meaningfully with ourselves and with others. □

THE WISDOM OF LIMITS

Embracing the limits we face will help us reach cultural maturity

by Charles M. Johnston

In a recent essay, economist Herman Daly identified one of the core symbols of the ruling American dream of unlimited growth: the Merrill Lynch bull. Ranging freely through TV commercials, over a landscape empty of people and other animals, the bull "knows no boundaries." The image is, however, a terrible distortion of reality; boundaries, limits, and relationships are the major structural elements of our world. The dream of unlimited growth – the "Boundless Bull" of Daly's essay – is an illusion; and as Daly notes, the bull is actually operating in the "china shop" of our planetary ecosystem, and must learn to tread more lightly.

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With growing frequency, we use the word crisis when defining our times. We have an environmental crisis, a drug crisis, a crisis in education, crises in love and the family. An unsettling characteristic links these various crises: few appear solvable simply by working harder at what we have done before. They ask new things of us – at the very least new perspectives, and very frequently whole new ways of acting and being.

These myriad crises have common themes. One of the most important is that they require us to relate to limits in new ways. For the new kinds of limits that present themselves today, our old attitudes and approaches not only will not work, they threaten to be our undoing.

How have we related to limits in the past? We've engaged them *heroically*. Our cultural story told us that limits were obstacles to get beyond, adversaries to defeat. This heroic call has defined much of our modern era. We conquered the Wild West, defeated polio and other diseases, and transcended the bonds of gravity and the limited vision of the past to venture into outer space.

Today we face new kinds of limits, ones for which this story, however grand, will not suffice. We are only beginning to understand what will be entailed in successfully meeting these new limits. But we can say with some certainty that both our future fulfillment as individuals and our future well-being as a species will depend intimately on our coming to understand limits in new ways.

A recent conversation thrust me into grappling with this new challenge. It could have been about most any of today's crises, but this conversation was about the health care crisis – over lunch with a man who was instrumental in the development of Canada's health care system.

Part way through the conversation he turned to me and said, "Charley, you in the United States look to our system as a possible model. But, you know, we've barely scratched the surface. We've done well with the initial task: making care available to everyone. But we've kept the hardest question well at arm's length. Combine equal access with an increasing ability to keep people alive almost indefinitely and you have a formula for national bankruptcy. At some point, we have to acknowledge the fact of limits. However uncomfortable it makes us, we must face the necessity of rationing care, of deciding what we can afford and what we can't."

On first encounter, the challenge of an equitable health care system, while certainly complex, seems largely technical. In fact, like most critical challenges in our time, one can't grapple with it effectively without being transformed by it. At its heart is this issue of limits: modern medicine's great success has been born from a heroic story, the courageous task of defeating death and disease – at almost any cost. Rationing care (which we now do covertly, by not ensuring equal access) requires that we accept the fact of economic limits. More than this, it requires a new relationship with life's ultimate limit: death. Rationing care requires that death be seen as more than just an evil adversary. It propels us into having to write a new kind of health care story, one in which life

and death are no longer opposites, but collaborative voices in a larger conversation.

Confront the new limits in any domain and we are ultimately led to re-ask the most fundamental of questions. This is certainly the case for health care. Acknowledge economic limits and pretty soon we are asking questions like "Wouldn't it make sense to spend more of our resources on prevention?" And then, "If prenatal care is valuable prevention, what about good nutrition, and if good nutrition is important what about cleaning up toxic chemicals in the environment, and if that is part of it too, what about the effects of poverty, and lack of housing, and ...." That list might look pretty overwhelming and unsolvable. On the other hand, it might be "just what the doctor ordered" – a fresh, systemic, "big picture" look at health.

FOUR NEW TYPES OF LIMITS

The new limits are of several types. The most obvious are physical limits: in resources, in space for the effluvium of civilization, in how many people can be crammed onto the planet before our presence is our own undoing. New inventions can help with some of this – more energy-efficient technologies, renewable approaches to energy production, and the creation of products that are more easily recycled. But ultimately these limits ask changes in ourselves – in the choices we make and how we live our daily lives.

In addition to physical limits, we are challenged to acknowledge new economic limits. Some of these – in health care, for example – reflect primarily the costs of new technologies outstripping our ability to pay for them. But many seem to be expressions of a more fundamental process.

In the Industrial Age, we came to expect economic growth as a given. Progress meant ever-expanding production and consumption. But mounting evidence suggests that such expectations may not be fulfilled in the future – and that this may not be a bad thing.

Working with business groups, I often comment that the goal of "keeping America number one" may not be achievable. Putting the present situation in a developmental metaphor, I suggest that there are just too many places in the world now with the youthful, single-minded determination needed for maximum material productivity. Then I offer that while remaining number one in the old sense may not be achievable, there is a sense in which *providing economic leadership* is not only a definite possibility – the future welfare of the planet may depend on it. This new economic leadership would replace the "onward and up-

ward" call of the Industrial Age with an economics based on defining wealth and progress more maturely, in terms of things such as quality, ecological sustainability, the health of communities, and the vitality and creativity of the workplace.

A third kind of limit is easily the most unsettling. We are being confronted by the fact that there may be real limits to what we as human beings can know and do. Central to our times' heroic story has been the notion that the potential of human knowledge is essentially boundless. The Industrial Age reinforced this view in grand fashion. We saw life's mysteries brought more and more into the light of reason, and nature's fearsome might succumbing with amazing rapidity to the powers of human understanding.

Today, from myriad directions, we are having to face the possibility that reality is greater than this. The fall of the Berlin wall and the Soviet dis-union remind us how limited we are in our ability to predict even momentous events. Bhopal, Chernobyl, and the *Challenger* disaster confront us with the magnitude of risk present in any human endeavor. And more and more the cutting edges of theoretical understanding – from Heisenberg in

physics, to Gödel in mathematics, to Chaos Theory – challenge us that uncertainty may not be just a function of incomplete knowledge. It may be inherent to reality itself. Decisions that lie ahead for us as a species will increasingly require that we humbly acknowledge how much in life we cannot predict or control, however bright we may be and however good our intentions.

The challenge of managing technologies that have the power to do major planetary harm offers a good example. This summer, the institute I direct will be convening an international think tank on nuclear waste disposal. As I prepare for it, I find myself reflecting frequently on not just how little we know, but on how much of what we would *want* to know is simply not knowable. A glimpse: nuclear waste includes many substances which will remain deadly for at least a quarter of a million years. Most solutions and safeguards assume some ability to keep an eye on the stuff, which in turn assumes stable governments and stable economies. In modern times, the best we humans have done at stable government is a couple of hundred years. And modern civilization as a whole has been around but a few thousand. Given this magnitude of uncertainty, it is highly unlikely that a solution can be found that will provide a really satisfactory level of safety (and we already have significant quantities of waste to deal with, whatever our decisions about future production).

New limits to what we can know and be are essential not only in important cultural decisions, but in every aspect of our daily lives. The challenge of what it takes for love to work in our time provides a ready example. Not too many years back, we had a pretty reliable formula for love: gender roles. Learn the right gender behaviors and you could be pretty confident of discovering someone who had learned the complementary set and living in relative happiness. Love was like fitting together two halves of a puzzle.

Today love relationships are not so easy. Increasingly, love that works is love that involves the coming together of two relatively whole people. One of the hardest parts of whole-person love is accepting that there are real limits to what we can be for each other. In the two-halves-make-a-whole love, we are each other's answer, white knight and fair princess. Whole people are just people, something that at first may seem a loss, but which in time offers the potential of a profound new richness and maturity in love.

A similar dynamic reshapes every kind of relationship in our time – parent and child, teacher and student, friend and friend, doctor and patient. In each we are being challenged to accept that there are major limits to what one person can be for another. To the degree we can accept that challenge, we discover whole new depths and richnesses to the meaning of relationship.

The fourth limit demanding our attention is life's ultimate limit: death. It confronts us on several fronts. The most obvious concerns the magnitude of the future decisions that will be required of us. In a way new for us as a species, many decisions are questions of life and death, both for ourselves and for other life forms that inhabit the planet with us. Although we have always been capable of destruction, we have never before been capable of anything remotely near the kind of global destruction possible today. If we wish to make future choices with any responsibility, we must acknowledge the potential mortality of species, our own and others.

Death confronts us in new ways more personally as well. We see this with issues like rationing health care, abortion, and the right of the terminally ill to die. Here we are being challenged to acknowledge not just that our actions can result in death, but that in certain situations the most life-giving choice may involve siding with death. We have sided with death before – in wartime, for example, and with the execution of criminals. But always before the person to die had been an "other," someone already cast out from humanity in our minds. Life is now presenting situations where siding with death is something much more personal, where choosing death may be the most loving option for ourselves or for another who matters deeply to us.

A NEXT CHAPTER IN THE HUMAN STORY

How do we best understand these new limits and what they ask of us? It is essential that we at least begin to answer this question. Today's new limits are not conquerable in the old sense. Yet, our traditional heroic story says that failing to conquer a limit is defeat. Without some larger perspective, our options are two equally unhelpful responses: denial on one hand, or depression and desperation on the other.

This discussion of limits points toward an analogy I've found particularly useful in seeking out such a larger understanding. One of its powers is that it offers a way to understand the limits we face in positive terms. It is a developmental analogy, to a particular time in our individual lives: the mid-life transition. Look closely and one finds striking parallels between the challenges of

the Industrial Age and those we encounter more personally during young adulthood, that period when our fundamental developmental task is to strike out and make our places in the world. In a similar sense, a look at today's quite different questions reveals challenges very akin to those we face as we enter the second half of our life.

At mid-life, the critical life-tasks shift from achievement to wisdom and perspective. Each of the four new cultural limits outlined above ask a similar shift and have direct parallels at mid-life.

Grappling with physical limits is certainly a part of mid-life: limits to how young and beautiful we can look, limits to our physical strength and abilities. Try to conquer these very real limits and our lives become increasingly absurd caricatures of youth. The task is to find the wisdom and courage to learn what these limits really mean. To the degree we are successful, our fears of being "over the hill" fall away to reveal a quite different landscape. In this new landscape, beauty and strength come to have new, fuller meanings – more seasoned, deeper, more complete.

In a similar way, the new physical limits on the planet need not make us less as a species. Meet them with open eyes and they can lead to a more mature beauty and strength in who we are.

Mid-life confronts us as well with economic limits: at first with the recognition that achievement may not continue its past onward and upward trajectory, later with the fact that we likely wouldn't want it to if it could. Mid-life is about mortality, and the simple fact that "you can't take it with you," whether the "it" is accomplishments, relationships, beliefs, or possessions. Mid-life challenges us again and again to reexamine our "bottom line," to look closely at what most matters, and to have the courage to live life as it most enriches us.

Similarly, today's cultural economic limits can serve us positively by challenging us as a species to find fuller meanings for concepts like wealth and progress.

The third kind of limit, the limit to what we can know, is also pivotal in the mid-life story. Mid-life is the point in our development when we finally, truly, let go of our parents. While physically we left them many years before, now we must leave them symbolically as well. Life challenges us to accept a new, more complete responsibility. With this it reveals that existence is a much less sure and predictable thing than we had assumed in the past. We remember back to our grandparents saying "the older you get the less you know," and with both trepidation and gratefulness realize what they were trying to express.

In a similar way, our loss of cultural absolutes confronts us with life's uncertainty. From the beginning of human time, culture has served as a parent to us. Our individual lives have always involved uncertainty, but before this loss, culture – whether defined in terms of omniscient deities, codes of right and wrong, or the laws of science – has offered some final external absolute. Today this is changing. Our times ask us not just to succeed in love, but to take responsibility for shaping new, larger definitions of love. They ask us not just to progress, but to redefine fundamentally what it means to progress. Within the psyche of culture, our times ask us to be "parent" and "child" simultaneously: in short, to "grow up" as a species.

Mid-life also confronts us with that final limit, death. Adolescents and young adults know the word for death, but they don't yet really believe in it. In the second half of life, mortality becomes a constant presence. As we anticipate death, it is hard to imagine that facing it might be a positive thing. But in fact death is life's ultimate teacher. Life teaches knowledge and experience, but it is death that teaches wisdom. Death challenges us again and again with the final question of purpose: "When I reach the end of my life, what will I most want to be able to say about my brief time on the planet?"

It is frightening how directly life confronts us these days with images of death – the nuclear mushroom cloud, the growing extinction of species, AIDS, spiraling population with its attendant specters of famine and ever-increasing environmental degradation. We can either be overwhelmed by these things – i.e., as with mid-life – or we can see them as a call to a new responsibility and maturity. At mid-life, facing the fact that death is real opens us to the full wonder and complexity of life in a way not before possible. If we can muster the courage, our times would seem to offer an opening just as profound.

If I were asked for a single word to capture what our times demand, it would be that word which most succinctly defines the fundamental task of life's second half: wisdom. It is not a word we use easily or really trust. But it is this the future most requires of us.

The new limits that confront us will be a primary arena for learning about and testing our much-needed new wisdom. We can deny the new limits. We can give up, let them defeat us. Or we can embrace a third, more challenging option. We can use them to help us learn about the new maturity, courage, and perspective on which our future depends. ▲

S TRUNG OUT ON AGGRESSION:

Has the American Dream Become a Violent Nightmare?

By Charles M. Johnston, M.D.

When we consider media violence, we think first of television's increasingly violent content. We fear that a populace incessantly bombarded with the images, sounds and emotions of shootings, bombings and rapes will become desensitized to such violent acts—or worse, learn to think of them as valid responses to life's growing stresses. The evidence suggests these fears are valid.

But media violence also affects us at a deeper and ultimately more problematic level. To make these connections, we must look beyond the literal content on the screen to the subliminal dynamics that animate them, as well as the social context that gives them their power.

Violence as a Drug
An analogy can help. As a futurist, I am frequently asked to address the background and expected developments of various problems plaguing today's world. In talking about the drug crisis, for example, I might comment that while it is most frequently framed as a moral crisis—a problem created by the bad actions of people who should be doing good—I see it more as a crisis of cultural purpose. We find ourselves in times when significant portions of the population are ingesting substances that mimic real meaning—real excitement, real power, real passion, real spirituality—rather than taking the life risks required to provide meaning as authentic experience.

The dynamics of media violence work in a similar way. At a psychological level, the drama and titillation of these violent scenarios and our identification with their heroes and heroines serve to create a sense of excitement, potency and significance that is missing from most people's daily lives.

Beneath these secondary influences lie effects more directly neurological in nature.

Here, it is less violence per se—behavior driven by anger or aggression—that hooks us to violent programming than the generalized rush of adrenalin we feel in response to violent situations presented to us. As good action/adventure directors know, a car chase or a plane crash—or even just an explosion—can be as effective as a premeditated shooting in keeping our attention glued to the screen.

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The addictive power of this generalized stimulation is illustrated all too vividly by a classic experiment with rats. Wires are inserted directly into excitement centers in the rat's brain, then attached to a depressible pedal in its cage. After discovering the connection between the pedal and the plea-

sure it brings, the rat depresses the pedal with growing frequency. Gradually the animal neglects other activities. In time it even forgets to eat—and starves to death.

Jolts per Minute
Programmers learned long ago that, as with the rat, regular jolts of empty stimulation are the easiest and cheapest means of keeping viewers glued to the screen. Thus, "jolts per minute" programming has come to pervade not only the action/adventure genre, but nearly every aspect of media. Soap operas and afternoon talk shows prosper through their ability to whip up polarized emotions. And the evening news, sold as television's time for serious analysis, has increasingly become an ever more predictable litany of each day's killings and disasters. Serious information is secondary at best.

While media violence can thus be directly addictive, we must go beyond this awareness to fully understand its deeper dynamics. Addiction on a broad scale requires more than an addictive substance; it requires as well social circumstances that support the addictive response. As we watch our children—and often ourselves—hypnotized by violence on the screen, we have to ask: Why don't we all cry out in protest, why don't we "just say no?" The question returns us to the notion of a cultural crisis of purpose.

Addiction in individuals occurs when a person stops seeing a reason to risk the vulnerability required for real fulfillment. A drug may be so powerful that it simply replaces the struggle to build a satisfying life. Or sometimes a person's life circumstances make fulfillment of normal dreams and desires unlikely. But usually there is something more fundamental, more at the level of meaning. The person's life story has become inadequte to
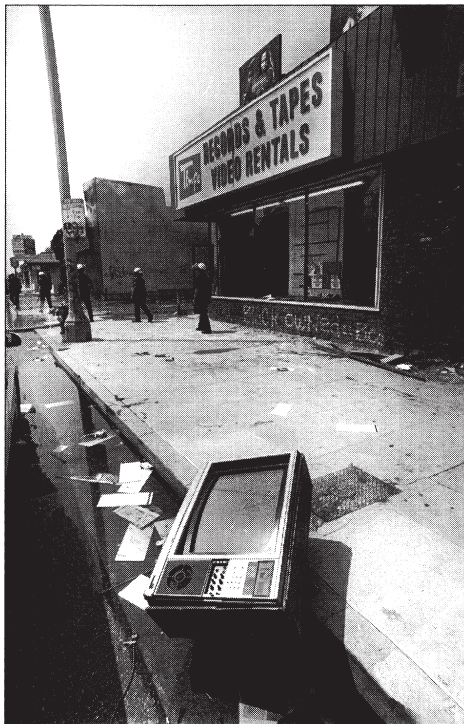
inspire him or her to live life fully.

Statistics such as the doubling of teen suicide over the last 10 years suggest all too graphically that, for many, our cultural story has become inadequate to inspire full participation in life. We find ourselves in the awkward position of telling youth to "just say no" while we ourselves are often unable to articulate a vision of the future that deeply and compellingly says "yes."

An Empty Dream

The role of cultural purpose in the dynamics of violence—and particularly in the increasingly disturbing phenomena of random violence—came home strongly for me when I prepared for a number of speeches I made following the April 1992 civil disturbances in South Central Los Angeles. While reviewing the events of those days, I realized that the driving force behind the rioting changed over time. In its early hours, it seemed to be driven mostly by anger and frustration—ultimately the anger and frustration of people who felt they had little chance of winning at the American Dream. But as the violence became more and more chaotic and random in its targets, it

seemed driven less by doubts about participants' chances for success in gaining the American Dream than by knowing at some level that even winning would mean little, that the dream itself had become empty. This ultimate despair became a force for destruction.

The addicting power of violence—both real and in the media—increases exponentially during times of transition, those times when a familiar story has ceased to provide

of fear and chaos so central to these times while hiding them from us through its empty intensity has a peculiar attraction.

A Two-Part Cure

The cure for our addiction to media violence lies in two related tasks. We must first teach the basics of media literacy to help people distinguish between genuine feelings of excitement born from true fulfillment and the seductive pseudo-excitement

Successful media literacy education counters people's susceptibility to manipulation by violence's hypnotic effects.

inspiration and a new one has yet to take its place. At these times, people are particularly vulnerable to using both violence itself and the witnessing of violent actions to inject themselves with excitement, engagement, and influence—feelings lacking in their own lives. And random violence—violence as undifferentiated stimulation—becomes particularly addictive in a new way. Its power to give voice to the feelings

of empty consumable stimulation. Successful media literacy education counters people's susceptibility to manipulation by violence's hypnotic effects. It provides both insight into how these effects work and an emotional climate that supports people's natural desire to be in charge of their lives—to escape harm and to avoid manipulation.

The second part of the solution defines the fundamental challenge of our time—to work together to write the much-needed next chapter in our cultural story. Like the drug epidemic, most of the critical crises of our time are really crises of purpose demanding not just revised policies, but new defining metaphors, new ways of talking about what matters. They challenge us to a unique and critical kind of conversation at all levels: in our schools, in community meetings, in government at all levels, in boardrooms, between friends and family members.

Ultimately, those at risk will be able to say no to the seductions of violent pseudo-excitement and pseudo-meaning only to the degree they experience real excitement and real meaning as possible and worth the risk. The deadening attraction of media violence will diminish to the exact degree its potency is countered by a newly mature and compelling collective cultural vision.

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Re: ACTION

Measuring Jolts Per Minute

"Jolts per minute" programming is often cited as a principle—almost a first law—of commercial television. "Jolt" refers to the moment of excitement generated by a laugh, a violent act, a car chase, quick film cut—any fast-paced episode that lures the viewer into the program. Television and screen writers often inject a jolt into their scripts to liven up the action or pick up the pace of a story.

Measuring the jolts per minute is a good way to discover how violence is used to keep the viewer's interest. When we consider the sheer number of violent acts we're exposed to for the sake of maintaining our attention, we can begin to understand how we're "jolted" into believing that the only thing that can keep our interest *is* violence. Here are some things you can do to keep from getting over-jolted:

• Ask yourself what type of jolts of violence are most common? Are there some

that are more persuasive than others? Consider alternatives to using violent jolts. Would a joke work in place of a fist fight? How would this affect the story?

• Observe promos for upcoming television shows. Are the clips mostly scenes of violence? Are there more violent jolts in movie promos or news promos? Is there a consistent number of jolts in all promos? Do the promos get more violent at certain hours?

• MTV has gained a reputation for quick edits and splashy graphics. How many of these cuts are scenes of violence? Are the quick cuts themselves acts of violence to our senses? What types of videos use more jolts of violence than others?

Based on media awareness activities in Media Literacy Resource Guide 1989, *Ministry of Education, Ontario, Canada.*

Intelligence and the Theory of Creative Causality

Charles Johnston

The Theory of Creative Causality is a new evolutionary/systems model for understanding both personal and cultural change. A basic premise of the theory is that the future is demanding not just that we think new things, but that we come to new, more dynamic and inclusive understandings of what it means to think.

This need is seen reflected in the nature of the key questions that challenge across domains. They have in common that none can be addressed solely with the intellect. While they include issues of technique and logical understanding, most fundamentally they are questions of purpose and value, questions which demand the engagement of all of who we are to be met with any completeness.

An example helps illustrate. Until very recently progress was a pretty straightforward concept: it was new inventions and material growth. Today, with our growing capacity to invent things that can do irreparable harm, and clear planetary limitations, a new kind of definition is obviously in order. Put simply, we need to learn to address progress in terms of *quality of life*. But quality of life, unlike material growth, does not conform to simple additive analysis. Being ultimately a measure of life, it requires that our living selves as a whole be brought to the task of measurement and understanding.

A parallel analysis can be made for the key emergent questions in every domain. Thus, if we are to effectively meet the key challenges of our time, it is imperative that we come to address questions of intelligence in much more multidimensional and inclusive terms.

The core of the Theory of Creative Causality is a proposed new *central organizing image* for understanding. Each major cultural age is seen as having a central image that serves as a fulcrum for understanding. In the Middle Age's it was reality as an eternal battle of good and evil. The Age of Reason challenged this and offered a new image, the Newtonian/Cartesian *universe as a great machine*. The theory suggests that present times are demanding a next expansion in how we understand what is fundamental. The new questions are *living* questions, beyond the capacity of simple mechanical concepts. The theory proposes a new *image:* reality as interplaying patterns of formative, creative process. (Creative is used here not to refer to special kinds of ability, but to the whole of the process by which things come into being.)

Only the most bare-boned description of the implications of this shift in referent for our understanding of intelligence is possible in this short space. Formative process clearly involves much more than just the intellect. Any creative dynamic involves interaction within a sequence of modes of intelligence. The first, somatic/kinesthetic intelligence, is most prominent in the early germinal stages of formative processes (in Piaget's sensori-motor stage in individual development, in the tribal period in cultural development, during incubation and with first "inklings" of new possibility in a creative project). Symbolic/imaginal intelligence is most forefront in creation's *inspiration* stage (in childhood's world of "make-believe and let's pretend," in culture's early mythic "golden" periods, in the first images of possible form in a creative project). Emotional/moral intelligence predominates during that stage when new inspiration makes its struggle into manifest form (adolescence in individual development, the Middle Ages in culture, the perspiration stage in a creative project). Rational/material intelligence takes the fore during the stage when creation is most form-defined (young adulthood in individual development, the Age of Reason in culture, the finishing/polishing stage in a creative project).
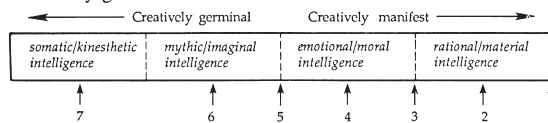
In the theory, these four kinds of intelligence are seen as having multiple layers of significance. They are developmental variables (e.g., while rational/material intelligence is how we define thought in modern culture, in most tribal cultures a person described as thinking primarily with his head would be assumed to be crazy). As well they are variables in individual human difference, in what defines personality/learning style. People are seeing as embodying, relative in their culture stage, different balances and relationships of the four basic kinds of intelligence.

The theory suggests that in times ahead it will be increasingly important that our theories of intelligence and our educational practices be integral, acknowledging of each layer in the creative whole of intelligence. Most simply this necessity follows from the present rate of cultural change: every field is demanding a constant input of new *creative* solutions. More fundamentally it follows from the nature of present changes. Questions of meaning and living relationships require that along with our intellects, we bring to the task of understanding all these creatively more germinal languages.

The tasks suggested by the theory in relation to intelligence and its facilitation are three-fold: first, to address it in increasingly integral terms; second, to develop approaches that better access all these aspects of intelligence (and in an integral way); and third, to address the question of the kinds of educational environments most appropriate to what becomes necessarily a much more dynamic, interactive, purpose-centered image of education.

To help fill out the concept of creative dynamics in intelligence, below are illustrations of kinds of questions evocative of different creative levels. No one level or kind of question is "better" than any other; each has its appropriate times and places. The more "creatively manifest" questions will be inherently more familiar than the more "creatively germinal."

← Creatively germinal	Creatively manifest →		
somatic/kinesthetic intelligence	mythic/imaginal intelligence	emotional/moral intelligence	rational/material intelligence

7   6   5   4   3   2   1

1. Fact oriented: "Who is buried in Grant's tomb?"

2. Logical problem solving: "$2+3=?$"

3. Invention (open ended but materially-defined): "Design a better mouse trap."

4. Esthetic problem solving: "Describe a house that you think is beautiful."

5. Value-based exploration: Recently, in working with a group of architects, the author began with two questions: 1) What are the qualities you most value in people? 2) What would it mean to design buildings so that these qualities were evoked in the people who entered them?

6. Symbolically-based exploration: "Imagine your life as a journey down some kind of path? What is the path like? What seem like the important challenges ahead?

7. Somatically-based exploration: "What are the things that matter most to you in your life? What are the bodily feelings that let you know that something, uniquely for you, 'matters'?"

References:
Johnston, Charles M., *The Creative Imperative: A Four-Dimensional Theory of Human Growth and Planetary Evolution*, Celestial Arts, Berkley, 1986.

Charles Johnston, M.D., is a psychiatrist and futurist, and directs the Institute for Creative Development, a think-tank and training center in Seattle, Washington.

CREATIVE DIFFERENTIATION

	Pre-Axis (Original Unity)	Early-Axis (Early Separation)	Middle-Axis (Isometric Separation)	Late-Axis (Ascendant Preeminence)
STAGES IN THE MAJOR PERIODICITIES:				
Period in a Specific Creative Event	Incubation	Inspiration	Perspiration	Finishing & Polishing
A Lifetime	Prenatal Period & Infancy	Childhood	Adolescence	Young Adulthood
A Relationship	Pre-Relationship	Falling in Love	Time of Struggle	Established Relationship
The History of Culture	Pre-History	Early Culture (The "Golden Ages")	Middle Culture (The "Middle Ages")	Late Culture (The "Age of Reason")
CHARACTERISTICS OF EACH STAGE:				
Ordering Causality	Animistic	Magical	Moral	Material
Energetics	Matriarchal	Focused on Emerging Ascent, but with Values Essentially Matriarchal	Matriarchy & Patriarchy in Opposed Balance	Essentially Patriarchal with Secondary Matriarchal Influence
Issue which Defines Identity	Inclusion	Centrality	Control	Mastery
Credo	"All is."	"The universe circles around me."	"I struggle, therefore I am."	"I think ("I am structure"), therefore I am."
Elemental Fear	Exclusion (= non-existence)	Reabsorption (= annihilation)	Loss of Control (= a fall into evil)	Failure (= impotence)
Manifest Qualities: ~ archetypically masculine poles (upper & outer)	Manifestation from Source and Soul	Inspiration, Spontaneity, Artistry, Vision	Commitment, Power, Dominion, Fortitude	Intelligence, Discernment, Achievement, Refinement
~ archetypically feminine poles (lower & inner)	Manifestation from Source and Soul	Mystery, Earthiness, Generativity, Depth	Nurturance, Constancy, Fundamental Values, Creative Doubt	Enthusiasm, Fairness, Appreciation, Esthetic Responsiveness
CREATIVE LANGUAGES: (* = Primary Organizing Language)				
The Body	*The Creature Body, the Body as Nature	The Body as Essence, the Body of Ritual, the Spirit or Dream Body	The Visceral/Muscular Body, the Body of "Heart and Guts"	The Physical Body, the Body as Appearance
The Symbolic	Animism ~ the Symbolic as a Language of Nature	*Myth ~ the Symbolic as a Language of Ritual and Inspirational Relationship	Legend ~ the Symbolic as a Language of Moral Order	Fantasy ~ the Symbolic as a Language of Romanticism and Idealism
The Emotional	Feeling as Harmony with Nature	Feeling as Inspiration, Essence and Primal Passion	*Feeling as Visceral Emotion	Feeling as Sentiment and Pleasure
The Intellect	Participatory Consciousness	Magical and Esthetic Thought	The Logic of Right and Wrong	*Rational, Mechanistic Thought