

Stimulating Creative Change in the Environment of Self-organization and Self-transcendence

Sadrudin Boga Ph.D.

The Center for Creative Change
Antioch University Seattle
Seattle, Washington, U.S.A. 98121
sboga@antiochseattle.edu

Life is more than survival and the environment to which it adapts, itself evolves and adapts. To grasp this co-evolution in a non-dualistic perspective require[s] the development of a paradigm capable of dealing with self-transcendence, the reaching out beyond the boundaries of one's own existence, the joy of creation. - *Erich Jantsch*.

Abstract

The challenge of stimulating creative change raises critical questions about the complex anatomy of both *creativity* and *change* at different levels of consciousness and attendant perceptions of space and time. Most of our cognitive processes are limited to viewing our world as fragments linked together in causal relationships of varying complexity—ranging from linear to holistic. Entrenched in the reductionist paradigm, most of our creative interventions today utilize only a thin slice of our full potential, resulting mostly in incremental changes to the status quo, and deflecting us from the engagement of our inherent capacity to experience insights at deeper levels of consciousness. This paper explores the possibilities of harnessing our full creative potential through the synthesis of self-organization and self-transcendence. Such a framework has enabled graduate students at the Center for Creative Change, Antioch University Seattle to bring about social change to secure the future of humanity.

1. Introduction

When Isaac Newton formulated his laws of motion in the seventeenth century, he enabled us to calculate fairly accurately the location and the movements of the celestial bodies. Such mechanistic calculations work with amazing accuracy in systems influenced largely by a simple set of variables embodied in Newton's famous formulae. It led classical science to require replication of test results as a fundamental rule for empirical validation. It represents a

process that projects the certainty of the past to guide an assured future. This approach comes into question when we try to sense the behavior of complex systems that exist in the world of uncertainty and chaos.

In early twentieth century, discoveries in atomic and quantum physics pointed to the limitations of classical physics, uncovering our complex world of probability and uncertainty. Ilya Prigogine's discovery of the irreversibility of dissipative structures [1984], James Lovelock's Gaia theory [1979] and Rupert Sheldrake's theory of formative causation [1980] stipulated the existence of a field that influences the evolution of all creation in the world of chaos.

In the twentieth century, the dynamic patterns of space-time phenomena in the universe were studied empirically to determine their complex structure, interdependence and evolution. The same empirical paradigm was extended to study human interaction and evolution tied in some measure to Darwin's theory of natural selection and evolution of biological species. This scientific approach provided a foundation to earlier development of General Systems Theory and cybernetics, which by and large helped to design and control negative feedbacks in complex machines. But it offered an incomplete model for living systems that embodied positive feedbacks as well, not to mention the complexity of individual and collective consciousness and the unconscious.

A natural state of *being* self-organized does not evolve mechanistically on a temporal trajectory leading to a predetermined goal. It requires an enabling environment to spark off autopoietic (self-creative) system that is continuously and effortlessly adapting to and influencing its external environment. The first order cybernetics of all

observed systems involves negative feedback as exemplified by thermostat. Such adaptation is often viewed as continual cycle of *stimulus* and *response* in a mechanistic paradigm—what Jantsch [1980] called the *dualistic paradigm*. Whereas this view may be appropriate for a thermostat, it is inadequate in characterization of living systems.

When human beings are adapting to and influencing their external environment, their interpretation of the external stimuli and their subsequent responses are influenced by their conditioned thoughts. In this situation, the observer is detached and separate from what's observed. This complexity introduces the need for theory of the observer that Forester (1989) called the second order of cybernetics of the observing systems. Jantsch [1980] asserts that in self-organizing paradigm, a non-dualistic view is viable, as it implies coevolution with a rapidly changing environment. Self-organization requires its participants to function collectively as a single co-evolving organism necessitating self-transcendence of individual participants.

Many activities of our daily lives follow a stepwise track, such as building a house or learning a language. They involve planning, organizing and implementing actions to attain a desired outcome on a temporal trajectory. However, social systems subject to turbulent external environment reside in perennial chaos. They have an innate capacity to self-organize themselves in the midst of chaos. Fluctuations accompanying chaos appear to most people to contradict prevailing logic and worldview. They represent paradoxes, which hold the capacity to open up a wider vista of space and time and unveil the underlying pattern. But mired in the mechanistic paradigm, we view these fluctuations as problems and proceed to correct or eliminate them—a negative feedback! Sadly, in complex systems, the elimination of even a single fluctuation triggers adverse oscillations of the whole system, popularly termed *unintended consequences*, which exacerbate the original problem—a positive feedback—a clear signal that this situation is a complex chaotic system.

Our worldview is shaped largely by the dominant machine metaphor. A paradox contradicts the metaphor and carries the power of jolting us to a higher metaphor (Boga, 2002). For example a Newtonian paradigm asserts that action causes reaction. Yet Lao Tzu contradicts this convention by proclaiming: “Act without Action.” It carries a number of possible interpretations that can lift us to higher metaphors. One of those interpretations could affirm the importance of taking actions in harmony with the cosmos—what Taoists call *wu wei* (Nonaction). It shifts us from a mechanistic to an evolutionary or ecological paradigm.

How does creativity play out in different paradigms? Current research and studies in creativity offer a variety of

approaches corresponding to different paradigms. These approaches include cognitive, psychodynamic, psychometric, social, personality, anecdotal, pragmatic, systemic, and mystical domains [Sternberg, 1999]. They represent an array of views spread over a wide field of space and time, in which any given system is viewed as an assembly of parts linked together in specific causal relationship—ranging from linear to complex. Today we are faced with the challenge of having to widen our horizons in order to unveil the full range of our creative faculties.

2 Similarities and Differences

Bohm and Peat [1991] believed that the interplay of similarities and differences form a crucial ingredient in the creation of new ideas or theories that supersede old ones. The Indian sutra from the ancient Vedas called *Veisheshika* explains that all objects of our experience (*padarthas*) in space and time are perceived in the context of similarities and differences [Radhakrishnan, 1957]. It draws a distinction between objects of direct perception and those of intellectual discrimination. The former has a real objective existence; the latter discriminates between what connects similar objects and what separates different objects, and seeks their combination or inheritance. "Similarities" between elements have known links. "Differences" between elements have undiscovered links. Each discovery carries an exclamation of "ah-ha!" with it.

The discovery of a link between two disparate objects can be provoked or sparked by cognitive processes that harness the interplay of similarities and differences through the magic of paradox. The paradox is manifest in poetry, humor, parables, stories, arts, music and mystical teachings. Making sense of what appears as two contradictory ideas in a paradox is not easy, if we are rigidly anchored in the machine metaphor. Numerous authors have offered tools to provoke creativity through paradox [Gordon 1961, Von Oech 1983, De Bono 1973, Henry, 2001]. But there is also a higher order of creativity that lies outside the field of space and time, and can be accessed through self-transcendence. Different levels of creativity provoked by diverse levels of consciousness and paradigms are categorized below:

- (a) In the "scientific paradigm", we reduce our reality into fragments either by turning a blind eye to the undiscovered "links," or by connecting the fragments with links that constitute new fragments. It leads to the *proliferation of fragments*, as is evident in the propagation of scientific knowledge.
- (b) In the "holistic paradigm", we observe the whole as the dynamic ecology of all its parts.
- (c) In "mysticism", the multiplicity of our world is fused into a single seamless truth.

3 Anatomy of Conditioned Thoughts

Our actions are driven by our conscious or unconscious thoughts conditioned by:

- (a) Our primal *instincts* or urges of domination, submission, greed, etc. for our survival and self-improvement. [Flowers, 1988]
- (b) Knowledge and experiences acquired from our parents, priests, pundits, teachers and so on, as characterized by Bronfenbrennar [1977] in his essay on the ecology of human development.
- (c) Collective unconscious or the mythic archetypes as stipulated by Jung [1959]. This is animated as intuition, which according to Herrmann [1989] resides in the cerebral cortex of the left hemisphere. Feelings and emotions lie in its limbic section. The internalization of paradoxes, poetry, arts occur in this section.

Since these conditioned thoughts are all stored in our memory to serve as resources in our observations and actions, the real observer and the thinker resides in the past, and not in the present. We use *old* thoughts to deal with *new* challenges. In such an approach, we tend to repeat the mistakes of the past, or at best, limit ourselves to the successes of the past. Such strategy lacks innovation. Albert Einstein has cautioned us: A problem cannot be solved with the same consciousness that created it in the first place.

4. Anatomy of Mindlessness

Buddhists ask us: “Can we be mindless in our mindfulness? The Roman philosopher and a mystic, Boethius, of the fifth century A.D., described the simultaneous experience of totality of space and time. He called it *totem simul*. It represents the eternal consciousness in which all events of time are *present* at once. It invokes deep insights. It holds a measure of transcendent creativity that can be harnessed to influence a social change.

In Islam, God, as a Creator (*Al-Khaliq*), created the universe in the domain of time. His instantaneous command (*amr*) creates phenomena in the spiritual realm outside time. God says: “Be and it is” (*Kun fa’ya kûn*) for such an instantaneous creation. In Hinduism, Shiva is portrayed as a dancing deity with a drum of time in one hand that goes tick-tick-tick shutting off all knowledge of eternity. But in the opposite hand he holds a flame, “which burns away the veil of time and opens our minds to eternity” [Flowers, 1988, p. 224]. The experience of eternity is the experience of being in the present.

5. Anatomy of Change

The Greek philosopher, Zeno of the fourth century B.C., struggled to unravel the paradox of an “arrow in flight,”

which at any instant is both stationary and moving. Because the world is constantly changing, it is at any instant both static and moving. This paradox led Sir Isaac Newton to conceive the notion of differentials and integrals in calculus. Change is perceived as a partial change from one moment to the next and accumulation of incremental changes. This concept has been applied in the study of *system dynamics*, in which changes in complex systems can be viewed as interplay of *flow* and *stock* corresponding to differentials and integrals in calculus.

Theory of relativity conceived by Albert Einstein in 1905 revealed even more remarkable and intricate models of change in space and time. It seems that the observation of space and time depends on the velocity of the observer relative to the observed. Thus what is observed as two simultaneous events by one observer can be seen as different by another observer if their relative frames of reference are different. These observations are not optical illusions. To add to the intrigue, while physical observation of space and time can get distorted, the velocity of light never changes. Recent studies in *string theory* stipulate the possibility of over a dozen dimensions of space. All these studies suggest that our current scientific knowledge has not yet revealed to us the full mystery of *change* in space and time.

In the exploration of *self-transcendence* of individuals in self-organized living systems, the understanding of the diverse dimensions of time becomes imperative. The role of “time” in creative engagement and its transcendence at another level of consciousness delineate an interesting spectrum of time that ranges from physical time (*Chronos*) to the transcendence of time (*Kairos*). There is an intermediate phase in which the psychological perception of time is distorted depending on the depth of creative engagement and relationship between the subject and the object of creation.

The principle of change in a constantly changing world generates a flux of interdependent opposites—from day to night, growth to decay, old to new, strong to weak and so on. It presents us with a challenge of having to fuse or transcend the inherent contradictions. “Taoists see the two sides of any apparent contradiction existing in an active harmony [yin-yang cycle], opposed but connected and mutually controlling.” [Nisbett, 2003. p.174]

6. Anatomy of Creativity and Motivation

Extensive literature exists on the genesis of motivation and its classification according to different levels of consciousness to ignite human creativity [Henry, 2001; Csikszentmihalyi, 2003; Sternberg 1999]. Along this progression of human consciousness, creativity lies along a continuum ranging from analytical to mystical, with corresponding variation in the perception of *time*, from

temporal to eternal. In between these two ends lies a psychological state in which time dilates when one is fully engaged in creative work. Different aspects of motivation associated with this progression can be classified as follows:

6.1 Extrinsic Motivation

Extrinsic motivation is driven by enticement of rewards or fear of adverse consequences. It lies on a trajectory of chronological time, (the *chronos*). It evolves in a linear sequence of cause and effect (first order cybernetics). Work becomes an instrument for achieving goals for self-gratification rather than self-transcendence. Focused on the future goals, the subject is detached from the full engagement in the active present. Sadly, most organizations design their performance management and compensation policies on the principle of “carrots and sticks.” Governments follow it in their foreign policies. It represents a feedback loop of domination and submission—what Antonio Gramsci called the *hegemony*. He held that underprivileged groups internalize the values system and worldviews of the privileged groups, and, thus, consent to their own marginalization.

Under hegemony, the powerful collectives propagate values of “ambition,” “competition,” “assertiveness,” and “wealth.” They are espoused by the masses for their security. But in reality, they are often palatable euphemisms for greed, envy, self-interest, and aggression, which are the basic constituents of our primal instincts. Consequently corruption, pollution, and violence become legitimate instruments for upholding those values; and the adverse consequences are regrettably euphemized as unavoidable collateral damage.

In neurological context, the predisposition for aggression and domination could be described as the limbic activity of our brain. In evolutionary terms, it is an instinct for survival. In psychological context, it can be explained as the base psyche stemming from the fear of diminishing or annihilating the “self.” In spiritual sense, it could be described as the lower level of consciousness—*kundalini* in Hinduism, or *nafs* in Islam, which merit transcendence. Ironically both the base psyche and its transcendence are a source of creative genius. Amazing inventions are created in the service of war resulting in immense human suffering. Paradoxically, when “self” is transcended, immeasurable creativity is unleashed in artistic and mystical domains.

6.2 Intrinsic Motivation

In a creative engagement, the intrinsic motivation is fueled by the passion or joy of the emerging moment. It is accompanied by an immersion of the subject into the object; repelling all distractions, which, says Csikszentmihalyi [2003], “makes it difficult [for us] to

experience the wholeness of our being.” The creative work unfolds almost unconsciously. Csikszentmihalyi quotes the experience of a rock climber as follows:

It’s a Zen feeling., like meditation or concentration. One thing you’re after is the one-pointedness of mind.... Somehow the right thing is done without your ever thinking about it or doing anything at all ... it just happens. (p. 47)

Propelled by intrinsic motivation, the creative work harnesses the skills, the knowledge and the habits of the creative person drawn from her *past* and placed against the shadowy backdrop of a perceived outcome in the *future*. This panorama of *totum simul* could be viewed as a holistic convergence of the past and the future into the active present. In the words of David Bohm (1998)

Creativity is not just the discovery of something new that has previously been unknown.... [A creative person] wishes to find in the reality in which he lives a certain oneness and totality, or wholeness constituting a kind of harmony that is felt to be beautiful.

Albert Einstein is known to have said: “The intellect has little to do on the road to discovery. There comes a leap in consciousness, call it intuition or what you will, and the solution comes to you and you don’t know how or why.” If there is a mutual causation between creativity and intrinsic motivation, as suggested by some recent research on creativity [Henry, 2001], then it makes sense that both these variables amplify with passage of physical time, provided they are sustained by a catalytic environment. The perception of dilation of physical time is arguably more intuitive than analytical. If intrinsic motivation is catalytic in surfacing intuition, then it makes sense that we need to foster a creative environment to invoke its birth.

In an evolutionary, self-generative system, mutual causation between creativity and intrinsic motivation is not a circular cause-effect cycle but a simultaneous generation of both as expressed in the Buddhist notion of dependent co-arising (*pratitya samutpâd*). All aspects of existence are interdependent and mutually condition each other. [Kohn, 1991]

6.3 Tacit Motivation

When a human being is in total harmony with all creatures and creation, she draws her motivation for creative work from the tacit field, in which she travels on a journey of personal discovery. It is a mystical state in which all differences and contradictions disappear, and time is totally transcended, as succinctly presented by William Blake.

To see a world in a grain of sand,
and heaven in a wild flower;
Hold infinity in the palm of your hand,
and eternity in an hour.

It is often assumed that such mystical experience lies only in the purview of the prophets and the sages. But Albert Einstein challenges this notion in the following words:

The most beautiful emotion we can experience is the mystical. It is the sower of all true art and science. He to whom this emotion is a stranger, who can no longer wonder and stand rapt in awe, is as good as dead. To know that what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty, which our full faculties can comprehend only in the most primitive forms.

7. Application

For sustainable future of living systems, it is imperative that they are self-organized so that their actions harmonize with the natural unfolding of their larger system. This is analogous to a surfer riding on unpredictable and indeterminate waves of the sea, continuously renewing his journey. When the whole system is viewed from wider vista of space and time, the waves, the coastline, and the tides reveal magnificent fractal patterns shaped by the chaotic attractors. For alignment with such attractors, organizations need to function as living systems and not as machines. The critical question is: how can organizations function as self-organizing systems? This concern can be addressed in two stages:

1. Interventions that jolt us from linear to non-linear thinking, which can be provoked by the magic of metaphors, paradoxes, humor, art, playfulness and storytelling (Boga, 2006). The new paradigm creates systems thinkers and practitioners. It also stimulates a creative work environment.
2. Creation of a holding environment that catalyzes self-organization. It leads to a higher level of consciousness at transpersonal level. In the words of Gharajedaghi [1999], "it speaks to those thinkers and practitioners who have come to realize that *learning to be* is as much a necessary part of a successful professional life as is the *learning to do*." This concept of an altered state of *being* touches the domain of mysticism, in which acquiescing to the generative energy of ambiguity and uncertainty becomes central. Such a holding environment requires the following:

- (a) Stimulation of a creative work environment as described in section 1 above. The creative work environment in turn stimulates intrinsic motivation [Henry, 1999].
- (b) An uninhibited flow of information that can be harnessed for constant renewal [Wheatley, 1994]
- (c) Policies and procedures formulated in simplest possible form to promote and sustain flexibility and nimbleness.
- (d) Organization's purpose, vision and values should reflect a collective and a tacit narrative of the whole organization, and not a fancy bunch of words inscribed on a golden plaque collecting dust. Vision needs to be more a *dream* than a *goal*. Goal is in the head; dream or longing is in the heart. The former reflects "doing;" the latter, a state of "being."

Today we are faced with a daunting challenge of bringing about a social change in a creative and a sustainable way. In light of a chronic lack of social justice in government and institutional policies for social change, many activists engage in critiquing the status quo and recommending policy revisions in the hope of influencing the policy-makers to reform their unfair policies. By and large this approach has not been very successful because most of high-level policies are formulated by political agenda that are driven by the base psyche of domination, greed and self-interest.

Individuals or groups at grassroots level have been more successful in initiating sustainable change in disadvantaged sectors of the civil society by taking one step at a time or winning one small win at a time. Such activists are propelled by an intrinsic motivation and a conviction that can instill creative juices in the society, drawing unexpected allies and donors to support the projects. Muhammad Yunus in Bangladesh started his mission by giving one loan at a time, Dr. Paul Farmer [Kidder, 2003] took care of one patient at a time in Haiti; Greg Mortenson built one school at a time in Afghanistan and northern areas of Pakistan [Mortenson, 2006]; Wangari Maathai planted one tree at a time in Kenya [Maathai 2007]; and Mother Teresa served one soul at a time in India. Their passion and compassion helped them to sustain their systemic vision, and influence not only the lives of individuals they served but also entire regions. For such projects to succeed, it is imperative that people involved have a systemic view of their activism as they impact a network of competing stakeholders. Can we create an enabling environment for such leaders to emerge?

At the turn of the century, Antioch University Seattle, decided to create system of education that would create leaders with a deep sense of social justice and a capacity for a creative and sustainable social change. With the

University's 155 years of tradition of innovation, systems thinking and inclusiveness, five graduate programs were pieced together to form a vibrant collage that provides an optimum balance between theory and practice and breadth and depth of learning. More importantly, the curricula and the pedagogy were designed to enable the students to access higher levels of consciousness that would evoke intrinsic motivation to make a difference to the world. This nexus of interdisciplinary programs was called the *Center for Creative Change*. The results of our endeavors over the last five years have been most impressive in terms of the transformation of our students to become reflective and caring leaders. In the second year of their graduate studies, they engage in change projects using the criteria laid out in this paper. The change projects include social actions in the areas of building community, communication, education, leadership, organizational change and sustainability. The details of the projects are readily accessible at www.antochsea.edu/academics/creativechange/html. The outcome of their studies and projects is measured not only by the successful completion of the projects but also, more importantly, on the level of transformation of our students, which can hardly be measured on the basis of empirical analysis. They are assessed on the basis of qualitative feedback from the students and graduates.

8. Conclusion

This paper shows how we can harness various levels of consciousness to bring about creative change through diverse interplay of similarities and differences. The methods vary from linear analytical processes that are most commonly used in problem-solving and decision analyses to holistic processes that draw on our synthesizing and intuitive faculty using the magic of metaphors, paradoxes, humor, and storytelling to kindle our intrinsic motivation in which we can experience a *flow* that is known to dilate time. While the processes that require the transcendence of the *self* and time are most difficult to evoke, the dilation of time through intrinsic motivation can be provoked through the stimulation of a creative environment. Many of these processes have been successfully created in the student population in the *Center for Creative Change* working on community-based change projects.

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