

Ongoing Discussion “Thought Piece”

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September 2006

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for
Pratt & Whitney Rocketdyne’s
Enterprise Thinking Network

A CREATIVE RUBRIC FOR THE FUTURE OF HUMANITY

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Background

This paper was written in preparation for a workshop on “Three Horizons: Shifting Vision to Lead through the Emerging Future,” to be convened at the 16th Annual Pegasus Conference on *Leading Beyond the Horizon* in November 2006. The author has drawn this “Thought Piece” from a number of papers he has presented at international conferences over the last several years, and the graduate courses he teaches in the Center for Creative Change at Antioch University Seattle. His themes, while principally centered on *systems thinking*, capture many Eastern ideas. Thoughts articulated in this paper are also segments of his book in progress titled *The Alchemy of Leadership*. A brief biography of the author is appended at the end.

Abstract

Good leadership constantly requires a careful evaluation of a vision of the future to which one can navigate. On the surface, a prediction of the future may appear simple. But as most of us are deeply entrenched in mechanistic worldview, our *forecast* is limited to the projection of the past into the future with its inherent propensity to repeat the past, albeit with some incremental improvements. It is like driving a car with a focus on the rear-view mirror. While this process may yield a reasonable forecast of the immediate future, it fails to catch the vision of distant horizons. Our consciousness that drives our actions is shaped by a problem-solving construct based on cause-and-effect or stimulus-and-response, and therefore is mechanistic. What can we do to enable us to harness our self-organizing and self-creative faculties as living systems to the fullest? This paper proposes that in an appropriate creative environment, we can *foresee* and *foreknow* the distant future. The distinction between re-activity, pro-activity and innovation parallels the paradigmatic continuum from mechanistic to holistic, and correspond with different levels of consciousness that enables us to forecast, foresee and foreknow the future. Farther away the horizon we seek, the greater is the need to rise to higher levels of consciousness to gain insights and intuition. The magic of paradox can shift a machine metaphor to a higher one. An enabling environment comprising of narratives, music, humor, art, and dialogue can facilitate this shift. This paper will attempt to explore the philosophical and theoretical underpinnings of complex dynamics to enable us to adapt to and influence the emerging future. They include our perception of time, taxonomy of creativity, inherent limitations of our current systems thinking, and human consciousness.

Introduction

When Isaac Newton formulated his laws of motion in the seventeenth century, they enabled us to predict fairly accurately the location and the movement of the celestial bodies both short-term as well as long-term. Such mechanistic process for predicting the

future works with amazing accuracy in systems influenced strongly by a simple set of variables embodied in Newton's famous formulae. But they do not apply to complex situations. For instance, today's stock market may at best give an approximation of what one may expect tomorrow, but that approximation is compounded exponentially as we try to predict the market conditions of the distant future. To add to the complexity, we get unexpected amplification of weak signals, popularly referred to as the *butterfly effect* (Briggs and Peat, 1999). A single terrorist act in a remote area can unleash a detrimental and an enduring impact on the market economy of the entire globe.

Yet most organizations are deeply anchored in the Newtonian paradigm as they merrily navigate their future. One may argue that this bondage is caused by their unwavering trust in science that has trained them to use the *historical mirror* to project the future rather than a *crystal ball* to prophesize it. And this argument seems to be rational and scientific until we learn about the discoveries in atomic and quantum physics in the last century (Wheatley, 1994). They point to the limitations of classical physics in subatomic systems—a world of probability, uncertainty and unpredictability. 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) also disclose limitations of classical science, suggesting the existence of a unifying field that influences the evolution of all creation. Most of us give only a superficial acceptance of these revelations, more as an intellectual front than a deep conviction. Our mechanistic worldview continues to make us view our everyday life experiences as actions that call for immediate reactions. We are supported and rewarded on the basis of our ability to fight daily fires to the extent that we stand to benefit when

we create new fires to quench. Our forward thinking is at best manifested in our readiness to be proactive to fight future fires. Thus we use the past to project the future, which is more imagined than imaginative. Our mental models restrict us to being reactive and proactive, but rarely innovative.

We are always looking for facile tools that we can use for reacting to any given event. Such tools are designed and constructed as *ten easy steps* for solving problems, as one would find in manuals for repairing a machine. Recent survey has shown that more than 80% of problems encountered by organizations are related to human relationships; and yet more than 80% of the training programs in organizations are technical, offering “how-to” recipes. It is ironical that even the remaining 20% of the training programs ostensibly related to human relations (such as leadership, team building, communication, etc.) are also designed, developed and delivered principally in linear steps. Indeed most of the books on organization effectiveness offer three keys, five dimensions, seven habits, and so on. Even Buddha presented his teachings as four Noble Truths, the fourth one delineating eight paths. In defense of these distinguished authors, many of their teachings were intended to offer a tacit infrastructure to invoke a transformation, and not a set of mechanical steps to lead to a desired goal. But human nature seems to be unable to transcend its reactive mechanical responses. How much of this mechanistic predisposition can we blame on Newton of the seventeenth century? Is it possible that its deep entrenchment in our psyche has a more ancient origin?

Most of our ancestors constructed legendary narratives of supernatural origins—gods, goddesses, demons, etc.—to make sense of the inexplicable changes observed in their external environment. They internalized the myths by co-acting with the

gods and demons in the cosmic theater. They performed the rain dance; they sang sacred hymns; they sacrificed animals and even humans to appease the gods. Their narratives and accompanying rituals permeated into the very core of their being—their psyche. The Greeks call this age of mythological existence, *mythos*. It existed in almost every ancient culture and civilization, and indeed exists today in many indigenous tribes. Carl Jung (1959), struck by the amazing similarities within diverse mythologies all across the world, concluded that this was a universal phenomenon of the *collective unconscious*—an archetypal field of the human psyche. Can we uncover *intuition* from this deeply ingrained unconscious field to help us foresee and perhaps actualize the future?

Following the long period of *mythos*, the Milesian Greek philosophers made sense of the external world through reasoning and logical analysis—the *logos*. Natural phenomena were explained by other natural phenomena. It marks the genesis of Western scientific tradition embracing observation, rationalism, and naturalism (Palmer, 1994). The lower orders of metaphors corresponding with the mechanistic worldview are congruent with “reason” inherent in the *logos*. Our predisposition to mechanistic thinking may well be entrenched in this distant past, eclipsing our earlier mythic roots.

There is a more impenetrable dimension of human faculty, the *mystikos*—a state, in which the mystics can experience higher intelligence. Through such transcendent awareness, a holistic *foreknowledge* can be gained. The Roman philosopher, Boethius, of the fifth century described such awareness as *totum simul*, meaning the perception of the *whole* in the same instant (Reese, 1980). It is akin to the Greek notion of the *kairos*, the experience of eternity. Though *mystikos* is not something we experience everyday, a collective ascent to a higher metaphor—combined with a fitting narrative and

dialogue—may help to compress time sufficiently to invoke the glimpse of the *unknown-unknown*. It is noteworthy that logos, mythos and mystikos lie on a continuum of time and beyond, ranging from chronos to kairos, each phase unleashing varying depth of creative intensity. Along this continuum lies a psychological phase, in which distortion of time accompanies the presence of creative passion.

Creativity Ladder on the Continuum of Time and Beyond

We commonly perceive the gap between “what is” and “what should be” as a creative force, which if harnessed can bridge the gap and bring the future into the present. This premise merits careful scrutiny, as it imagines a force pulling the future to the present. When we describe the *present* (“what is”), its description comes from what is known—that is, knowledge nested in our memory, which is in the *past* (Krishnamurti, 1999). Thus we see the present through the lenses of the past; we see “what is” through “what has been” and project it to “what should be.” So when we make changes on the basis of our delusion of “what is,” it mostly brings about an improvement to the past knowledge and experience, often limiting us to the consciousness of the past. As Einstein’s famous words perennially remind us, our problems cannot be solved by the same consciousness that created them in the first place. So when we want to bring about a quantum shift in our consciousness to meet a new challenge, we need to stimulate creativity through passion or intrinsic motivation that causes a psychological distortion of physical time, *chronos* (Henry, 2001). It carries us into a creative realm that Csikszentmihalyi called the *flow* (1996). In this state, the creator gives total attention to what is being created, excluding all distractions. Time flies. Every moment of the journey becomes its destination. An authentic dialogue can provide a similar experience in which

every moment is transformative as new meaning gathers and unfolds organically (Bohm & Nichol, 1996).

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 are heightened or enhanced with passage of physical time provided they are sustained by a catalytic environment. The perception of contraction of physical time resonates with the experience of a creative flash (Ah-ha), which is arguably more intuitive than analytical. Though intuition springs from a deep source (unconsciousness), it is nonetheless cerebral (right-brain activity according to Herrmann, 1989). If intrinsic motivation is catalytic in surfacing intuition, then it makes sense that we need to foster a creative environment to invoke its birth.

The creative birth of a new idea is accompanied by the interplay of similarities and differences (Bohm & Peat, 1987). A new idea springs from the synectics of two disparate ideas (Gordon, 1961). Reconciliation of what appears as two contradictory ideas is not easy if we are rigidly anchored in the machine metaphor. Paradox has the magic of reconciling the apparent contradiction, triggering the experience of “Ah-ha”, and lifting us from the machine metaphor to a higher one. There are a number of different orders of interpretations of a given paradox, each representing a specific paradigm, ranging from the mechanistic to the evolutionary (Boga, 2002). But there is a higher order of creativity that lies outside the domain of thought—the mystikos. Mystics tell us that ethics or moral conduct is the corridor that can take us from the field of space and time to a spiritual state, in which there are no conditioned thoughts that consume our creative energy to serve our self-identity. Self-transcendence does not lie on a temporal

trajectory. It is the experience of “now” in which time is condensed, as lucidly expressed by William Black in his famous verse:

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.

When we seek a change in our temporal consciousness, it is appropriate and arguably necessary that we focus on “what should be.” Thus “what is” becomes a bridge from the past to the future. For example, if I want to learn a language, it becomes necessary for me to plan my commitment on a time-dependent trajectory. But if I want to bring about a transformation in my psyche, it requires a *revolution* rather than an *evolution* of consciousness. Our consciousness is the reservoir of diverse thoughts enabling us to create new ideas through interplay of similarities and differences. However, as Krishnamurti and Bohm assert, the root cause of widespread misery and suffering in the world is the general disorder and confusion in human consciousness (1999). The disorder is caused by the very structure and movement of thoughts, and is the seat of our psychological anguish, as it diminishes or enhances our self-identity in our interpersonal relationships. When we “think,” we are normally oblivious to its genesis, structure and process, which are in great disorder. To cite an example, consider this scenario: I sat with Susan to discuss the topic of leadership. I had many thoughts on the subject, conditioned by numerous sources—parents, priests, prophets, publications and so on. Because these thoughts reside in my memory, they are in the past, retrievable in the present. I dived straight into the content of the subject, and accessed my memory to seek the best answer. I talked about situational, charismatic, adaptive, and servant leadership, all of which I learned from various distinguished sources. In such synergistic

conversation nested in thought content, many novel ideas surfaced through association, combination, or synectics of disparate thoughts.

But in such a gripping engagement, I totally ignored the movement and the structure of my thoughts. For example, was I aware that my conversation was influenced by my perception of my relationship with Susan? Was she my professor, my wife, my student, a stranger, my girlfriend, etc.? Was she black, young, single, American, Muslim, etc? All these attributes define the measure of psychological distance I sense between her and *me* in the context of how privileged or under-privileged I feel in her company. My self-centeredness tries to project an image that will embellish or protect my self-identity. On a cursory reflection, it becomes quite evident that we expend more energy in managing such psychic struggle than in the creative discourse of the subject. Almost unconsciously, we accept this conflict as a part of natural order of things. In such communication, both parties are so preoccupied enhancing or protecting their self-image that no one is listening *silently* to the other with full *attention*. While the conversation about the content of the subject is unfolding, the very awareness of the thought structure and process can liberate us from the bondage of our conditioned thoughts and associated conflicts, and usher us in the realm of creative intelligence. However, it is crucial that this awareness of the underlying psyche has to go beyond a theoretical or intellectual *recognition* of reality to the *realization* of truth through deep *attention* outside the content of our conditioned thoughts.

If we can step outside the content of our thought and observe the structure and process of thought, we may be able to negate the conditioning of all thoughts—not just one single thought but conditioning in totality. Negation of all conditioning unleashes

immeasurable creativity hitherto expended in dealing with the psychological conflicts arising in relationships that separate one from the other. Negation is the process of stripping off “what is not” in order to get to “what is,” whereas most of our energy is expended in moving from “what has been “ to “what should be.” Negation *is not* contradiction; it *is not* making a judgment; it *is not* making a choice. Whatever we are left with after negation is “what is so.” However this realization is obstructed by our habitual pursuit of *what should be*. A Sufi master was once asked how he sculpts an elephant from a block of stone, he replied: “I chisel out *what is not* an elephant; and what I am left with *is* an elephant.” That is negation!

Systems Thinking

From the dim ages of the past, thinkers have searched for rudimentary elements that make up our universe. The estimated number of these elements has ranged from the four basic substances (earth, water, air, and fire) as speculated by the earliest of the ancient thinkers to 120 elements of the Periodic Table in more recent times. The notion that we are made up of the same chemical elements as the stars should stir a nudging awareness of our connectedness to the whole. Does this oneness of the universe prompt us to realize that the observer is also one with the observed? More importantly, can we realize that the physical and psychological separation we envision between humans is also an illusion? If we can truly and deeply actualize this awareness, we can end all human conflict that has led to so much misery on our planet. In the early twentieth century, quantum physics discovered a close relationship between the observer and the observed (Bohm, 1995). This knowledge seems to resonate with age-old mystical belief that *the observer is the observed*. Mystics have described the essence of all realities in a

variety of ways: *brahman* in Hinduism, *tawhid* in Sufism, *tao* in Taoism, *dharamakaya* in Buddhism, and so on (Capra, 1975). They allude to the transcendence of space and time. The transcendence of space is embodied in what the Sufi master, Ibn al-Arabi, called *wahadat al-wujud* (oneness of *being*), connecting all parts seamlessly to make the whole (Schimmel, 1975). The same applies to the transcendence of time when we experience “what is” as the truth acting in the “now”. However, the actuality of the experience of universal oneness eludes most people.

In systems thinking, we generally *link* all parts of a given system to construct the whole, and recognize that in complex systems the whole is greater than the sum of its parts. The provision of links is sometimes a reductionist process in that it increases the number of parts by the addition of all links. More importantly, failure to unite the observer with the observed fragments our reality further, separating us from the whole. When we *reduce* a drop of water to its chemical constituents (hydrogen and oxygen), we clearly identify the drop as having the same property as the whole sea. When systems thinkers recognize that the sea is greater than the sum of the drops, they see it principally in the ecological context. But they often fail to see the common *is-ness* of the drop and the sea. If the bulk of the human body is made up of water, can we sense our oneness with the ocean? A Persian mystic sees not only the drops forming the ocean, but also the whole ocean in a single drop. This apprehension lies in an ethos of mutual causation, expressed succinctly in the Sufi saying:

Al-Khatratu fi'l Wahadati, (Parts come from the whole)
W'al Wahadatu fi'l Khatrati. (And the whole comes from the parts.)

Systems thinkers view systems dynamics as a network of interdependent variables in causal relationships. These variables are drawn from our knowledge and experience

held in our memory. This past conditioning (trends) guides us to project a future of “what should be,” bypassing the “what is,” and separating the observer from the observed. For example, if we explore our response to starvation in Sudan, we would draw causal loop diagrams identifying the causes of the problem, its resolution and a predicted set of unintended consequences. Unfortunately, we would not see it as universal suffering of mankind but suffering of the “other,” thereby stripping us of a sense of compassion. Our actions tend to be driven by domination, and self-interest, under the cloak of some acceptable ideology such as freedom, democracy, and so on. Systems thinking, by its very designation implies *thinking thoughts* that are conditioned, and are unmindful of the complexity of the human psyche, the same way as the proverbial fish is unaware of its ambient water. This limitation represents the blind spot in our systems thinking when navigation into the future.

Navigating the Emerging Future along Three Trajectories

Most popular strategic planning processes start with an environmental scan of the current situation that affects us, exploration of a probable future that we need to adapt to, and a desirable future that we can influence. This exercise is generally followed by assessment of the gap between the existing reality and the envisioned future, which gives us a basis for determining our actions to deal with the future. This approach of forecasting involves projection of our past into the future guided mainly by the machine metaphor. It merely extrapolates our knowledge of the past to identify strong signals that give us trends for assessing the future. Because of the analytical nature of such extrapolation, it limits itself to a selected number of strong signals deemed important. Sadly, it ignores the weak signals or fluctuations that carry a potential to have a

significant impact on our future as they expand and snowball (the butterfly effect) with passage of time. (Laszlo, 2001; Loye, 2000). Thus analytical extrapolation of the past involved in *forecasting* the future does not really open itself to discovering new possibilities in the distant future. However, since the *present* serves as a bridge between the past and the future, it has some utility in conveyance of the past to the immediate future.

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.” Can we therefore draw on our *intuition* to give us some insights in the emerging future and help us to steer to a more distant horizon? To meet this challenge, planning processes exist that construct future scenarios using the magic of polarities and paradoxes to capture not only the current strong signals but also the weak signals. However, the forecast and the foresight are both cerebral activities in that they involve the projection of the past consciously or unconsciously into the future, thereby missing the “present,”—the “what is.” Awareness of the “present” goes beyond our accustomed systems thinking.

This new awareness of *being in the present* can give us a holistic view that may provide us with *foreknowledge* of what has the potential to evolve in the distant future—the third horizon! Analytical processes of forecasting use the “historical mirror” to project into the future, whereas intuition and foreknowledge use a “crystal bowl” to draw collective insights to prophesize the future. The latter is more likely to foster a self-organizing environment through deployment of collective consciousness. Projections of a

collective conscious and the unconscious represent more accurately the collective or communal force that can influence the actualization of desirable trajectories.

Unfolding each of these three horizons is a creative activity, which harnesses analysis, intuition or transcendent awareness. The first two are cerebral and time-dependent; whereas the last one requires *receptiveness* of mind to flashes of insight rather than *preparedness* for an outcome, which is time-bound. With holistic awareness accompanied by sense of no division between the inner and the outer, receptiveness of mind comes from silent observation and listening in totality. Santiago Ramon y Cajal, a Nobel laureate in Physiology advised his students: “Lose yourself in the observation and become the thing you are studying.” If one can observe without any past conditioned thoughts, the psychological distance we perceive in relation to the “other” disappears, and new insights come to the surface.

With our problem-solving worldview, we solve problems reactively in anticipation of a quick desired future. But in complex situations, such approach can result in a series of *unintended consequences*. In analysis of systems dynamics, we frequently use “fix that fails” archetype as a lens to explore the unintended consequences of our problem-solving actions. If we remain shackled to the mechanistic paradigm, such analysis carries pitfalls.

Here are a few salient shortcomings:

1. Fixated in a reactive mode, we generally rush in to fix the problem without investigating adequately the root cause of the problem.
2. Our choice of unintended consequences is itself driven by our problem-solving mindset. We proactively look for potential problems that will need to be solved. And in some instances, the outcome of such strategy can be a self-fulfilling prophecy.

3. When we explore the unintended consequences, we rarely look for possibilities of good outcome or opportunities; nor do we distinguish between the consequences that we will need to adapt to and those we could influence.
4. When each detrimental consequence (unintended) is realized, we treat it as a problem, and proceed to *fix* it, which generates its own set of unintended consequences, each of which becomes a problem. Thus we launch an endless cycle of problems, which all proliferate from one single problem.
5. Every unintended consequence has its own expectancy of occurrence. Some are expected to occur in the immediate future and some later. Thus the ability to foresee the distant future becomes imperative if we want to have a broad systemic view of the whole.
6. In certain cases, the so-called unintended consequences may in fact be undeclared “intended consequences,” in the hope of fulfilling some political agenda.
7. The effect of the problem becomes the cause that exacerbates the original problem, thereby surfacing a paradox. Each one of the unintended consequences can become a problem, with its potential to present a paradox when solved. Thus a whole array of paradoxes can precipitate from a single problem. Can such an assortment of paradoxes liberate us from the bondage of mechanistic paradigm, and serve us as an intuitive framework for exploring future scenarios?

Conclusion

It is clear that in emergent cases where the problem is causing a great deal of suffering (famine, war, pollution, etc.), we need to react promptly to prevent the “hemorrhage before the patient bleeds to death.” At the same time we need to formulate

an immediate follow-up after our first reaction. If the case is very complex, we need to rely on intuition to foresee the emerging future and the associated preventive and contingent measures for an enduring solution. The question is: How do we transcend our bondage to our perfunctory reactivity to a chain of unexpected consequences? Such transcendence requires a catalytic environment that will stimulate a self-organizing, self-creative, and self-regulating evolutionary system. The enabling environment can be extrinsic or intrinsic. Extrinsic environment is facilitative, and intrinsic one is catalytic and self-sacrificing. For example, if we cook a meal, the pot that conducts heat to the ingredients in the pot does not add anything of itself into the meal. Yet in many tropical countries, meals are wrapped in palm leaves and grilled directly on burning charcoal. The leaves while conducting heat to the ingredients also add something of themselves to the meal. The cooking pot constitutes an extrinsic environment; and the leaves connote intrinsic environment. While extrinsic environment may be adequate for forecasting, we additionally need intrinsic environment to catalyze a foresight and foreknowledge. Based on personal experience, the magic of paradox can jolt participants from machine metaphor to a higher one if carried out in a catalytic environment, such as narratives, art, music, humor, and dialogue.

Biography

Sadrudin Boga has lived in Africa, India, Europe, Canada and US, with extensive experience in management, organizational consulting and higher education. Currently a professor at Antioch University Seattle, he has designed, developed and delivered courses and workshops on systems thinking, innovation and creativity, global pluralism, leadership in business, strategic planning, critical inquiry, and Eastern mysticism. He has a doctoral degree in *human and organizational systems* from Fielding Graduate University in Santa Barbara, California.

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