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Thinking and Planning: Vision 2010

by

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A Holistic Approach to Planning

Preamble

I recently finished reading *Joint Vision 2010* and the Army's complementary version, *Army Vision 2010*. Both documents are excellent — visionary in the truest sense of the word. Both documents touch on, albeit mostly through suggestion, the most critical aspect of any military force existing in the 21st century, the **thinking capabilities** of its soldiers, sailors, airmen and marines. We must have exceptional thinking to accomplish the lofty goals discussed in *Joint Vision 2010* and *Army Vision 2010*. The world in which we reside is so extraordinarily complex and interrelated that only stupendous thinking will sustain our current greatness and ensure our defenses become even stronger.

Nothing is wrong with the way we have thought and planned through the years. Our thinking and planning have yielded great results. Yet, I must ask, is the thinking and planning that brought us to where we are today good enough to deal with an extraordinarily complex and rapidly changing future? Can our minds accomplish the intellectual challenges a relentless future demands, particularly in a world where change will occur more rapidly and dramatically than at any time in our history? Could we, with just a modicum of effort, improve the way we think, enabling us to become more capable of coping with change and, in fact, capable of shaping the future?

The answer to these questions is a definitive yes. **The human mind is indeed the last dimension of future battlefields.** Our minds have the potential to expand greatly, to achieve wonderful things, and to provide the thinking we need to understand and actively shape the future. We must, however, learn to realize the presence of relationships and seek to unlock their mysteries and power. We must treat, through nourishment and stimulation, the minds of those who make up

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our marvelous defense establishment, paying at least as much attention to developing and nurturing intellectual development as to developing and procuring machines of war. This thought captures the essence of what this paper is about: developing a way we can think and plan to cope with and shape a complex and rapidly changing future.

Our Immediate Quest — Dealing with Change

As human beings prepare for the 21st century, we have to ask ourselves a fundamental question: Can we effectively adapt to change enough to excel in the future? If our integrity, intellectual and moral, is forthright, we have to answer the question with some equivocation and varying degrees of skepticism. It's quite clear some of today's problems are growing so significantly they seem intractable. Our consciousness recognizes problems in our government, ecology, livelihoods, legal system, social system and morality, to name but a few. The immense complexity of these problems threatens our ability to solve them and to adapt to changes the future will bring.

As a society and as individuals, we are faced with overwhelming complexity. This complexity is atypical from anything the human race has faced throughout the annals of history. In the past, we have had time to adapt to the advent of great revolutions. The last revolution we encountered was the industrial revolution. Then, people had time to adapt because information moved at the speed of the horse or locomotive. Now, truth has indeed changed and people don't have time to adapt to changes inherent in the revolution we now face — the information revolution. Quite simply, our globe is interconnected in webs of information that provide people all over the world near-instant access to information. This information pounds, threatens and informs us, and provides knowledge and understanding unthinkable in years gone by. Our problem now is that we have access to too much information. No matter how hard we try, we can't keep up with technological advances, and the processes machines go through seem to be more important than thinking and the goal or objective we are after.

Complexity has several adverse effects. It causes confusion. It thwarts the understanding of relationships and the depth of thinking we need for increasing our understanding of the meaning of change. Also, complexity retards our ability to adapt to fast-changing situations. Complexity facing us has two potential outcomes earning primacy among many.

- ◆ We can adapt, use the complexity to our advantage, and shape the future.
- ◆ We can let change drag us along into the future, allowing complexity to create great alienation among our people.

How people face the gathering storm clouds of complexity is quite interesting. Some people withdraw and fail to cope. Others valiantly claim the age we live in is really no different from ages that have already evolved. Others ardently believe complexity to be a myth; these people ingest the habit-forming opiate of status quo.

I believe we must change the way we think and plan. Our success in this effort will influence our survival as a culture. Change in this context involves two concepts: coping and shaping. **Coping** is passive, something we do without a lot of intellectual energy. **Shaping**, however, is an active process, a process that requires expending intellectual energy. I must preface my discussion at this point with the disclaimer that nothing is drastically wrong with the way we've traditionally thought and planned. But we must be honest with ourselves and realize that what was good enough in the past simply won't work in the future, particularly in a future in which the information revolution, technological advancements, and rapid, complex change are sure to dominate.

We need to adapt our thinking to cope with the dizzying pace of change accentuated by advances in information and technology. We can't continue to think about things in isolation. We can't continue to think using analysis alone instead of analyzing and synthesizing. Moreover, we need to change the way we plan. We can't continue to plan as we have in the past, emphasizing the short-term over the long-term. We have to learn to cope with short- *and* long-term effects. We must search for and understand the true essence of problems. We must guard against falling victim to the seductive power of reductionism, which I'll discuss shortly.

I've developed an approach that presents a different way to think and plan. I believe it's a positive way we need to move into the next century, shaping and designing change, rather than being victims of change. I offer this paper for your thought — to discuss, debate, argue, accept, deny — but what I truly hope is that you think about it and then come up with a better, more intelligent way to cope with the future and the overwhelming problems that face the human race. If such approaches surface, I know I will have succeeded.

Some Opening Thoughts

Change is like wind, strong and aberrant, shifting constantly, and shaping our collective destinies. Winds of change assault and eventually fragment our status quo and existing realities, sometimes slowly, sometimes rapidly. Change remains frightening. It's something that happens, and we have little control over it. Out of necessity we usually cope with and adapt to change rather than shape it. Coping takes little effort; shaping takes much effort.

With change comes chaos; change tears apart the established status quo, and leaves us with an existence that can never be the same again. Within change-induced chaos, however, lies the arcane synthesis of wisdom, collective intellect and synergy. To find wisdom, we have to synthesize disparate elements of change-induced chaos into meaning and a higher order of thought.

With the advent of change, we often experience the familiar, empty feeling of knowing something is gone or changed and being frustrated that we can't do anything about it, much like the empty feeling we have when a loved one dies. If change is slow and methodical, we generally can cope and adjust by changing the way we view the environment, adjusting to circumstances, and putting together pieces fragmented by change. Such is one of the true blessings of being human.

With rapid change, however, the human equation changes. It's the negative side of being human that we can't change rapidly enough to cope and adjust. Instead, we suffer from individual and aggregate angst. With rapid change, we don't have opportunities to put change-induced fragmentation back together.

Yet, there's hope. Even with the chaos that change-induced fragmentation brings, coalescing forces can gather fragments together into new wholes, into new meanings. To bring together change-fragmented entities into wholes, we must understand nuance and synthesize related bits and pieces of information into wholes. What inhibits this process, though, is the overall way our intellects work. Our intellects typically don't synthesize bits and pieces of information with ease, particularly those seeming disparate. We also have trouble understanding coalescence because it's intangible, something we cannot quantify. Without quantification, we have great difficulty believing. We must believe to be able to understand. Thus it follows that our understanding of complexity and change is impaired.

The complexity and rapidity of change thwart our efforts to think and plan as we should to shape the future. Our environment grows increasingly difficult to live in because of ever-increasing complexity. Our environment, though, presents four interesting intellectual implications.

- ◆ First, through **synthesis**, we need to learn to think better about combining bits and pieces of information into a higher level of meaning.
- ◆ Second, we need to learn to plan **holistically**, where wholes and relationships present paths to understanding our environment, regardless of complexity.
- ◆ Third, abstract, yet real, mental constructs of wholes and relationships provide insights sufficient to lead to an approach for **shaping our future**.
- ◆ Fourth, we can move into the future **progressively** instead of **reactively**.

Effective thinking and planning provide about the only ways to cope with the complexity and associated bewilderment caused by rapid change. Traditionally, though, thinking and planning receive short shrift even in our daily lives and organizations. We should ask ourselves why.

As a partial response, we've become the sound-bite generation, looking for simple solutions without mental travail. With the simplicity brought about by sound bites, we lose our ability to think in sufficient depth to understand and use complexity, let alone change. We allow ourselves to fall into logic traps repeatedly, such as a thin, opening wedge where we extrapolate a few pieces of information into generalizing about the whole. We want pictures and cartoons to simplify complexity without delving into the substance and complexity that underpin even the simplest graphic display of information. We have become infatuated with the process involved with moving toward the goal rather than the thinking and planning that enable us to accomplish goals. We have fallen into the trap of reducing information to its essential elements while failing to search for relationships and combine the results of analysis into a higher level of meaning.

In one of our most egregious errors as human beings, we often fail to search for and understand relationships. Without relationships, it's difficult to think about creating synergy and understanding its wonderful effects. Adding to the problem, people often experience difficulty understanding long- and short-term cause-and-effect relationships. We tend to ensure the existence of the forces of isolation and alienation that come with an incessant focus on quantitative goals, events and outcomes at the expenses of relationships and wholes.

What Can We Do?

What should the solving on Nature's secrets be? . . . If you wish to advance into the infinite, explore the finite in all directions. If you desire refreshing contemplation of the Whole, you must discern the Whole in the smallest of things. In the infinite the same events repeat themselves in eternal flux, and the thousandfold vault of the heavens powerfully conjoins with itself, and then the joy of life streams out of all things, out of the smallest and out of the greatest of stars.¹

Because of an increasingly complex environment and the demanding aspects of change, **we must modify our current methods of thinking and planning**. Thinkers and planners in the 21st century must seek relationships, understand wholes, seek relevance, and strive to create the conditions that promote synergy. I call this type of thinking **synthesis** and this type of planning **holistic planning**. When we use these ways to think and plan, we can combine successfully what we've done so well in

the past with what is imperative for the future. Synthesis and holistic planning offer multiple paths to shape the future. They combine entities. This type of thinking and planning takes advantage of detailed analysis then synthesizes the results of analyses into wholes and a higher, more complex level of meaning. The end result of the process answers the question, “So what?” and provides meaning to apparently meaningless data. It seeks understanding, not just knowing.

The Way We Were

Effective thinking and planning enable order to surface in a sea of chaos. Order and its principal side-effect, stability, provide people a way to cope with a bewildering, complex environment — the real world. To be effective, thinking and planning have to relate to the real world.

A plan provides a means of orienting the future; it’s a path or design to accomplish goals, objectives. The words **path** and **design** suggest thinking. Whether thinking and planning are good or bad is a subjective judgment. An important adjunct issue to this inquiry quickly arises: What does thinking involve?

Typically, thinking involves some form of **analysis**, “separation of an intellectual or substantial whole into its constituent parts for individual study.”² Atypically, thinking involves **synthesis**, “fusion of separate elements or substances to form a coherent whole.”³ Our thinking shortfalls start surfacing when, content with the results we derive through analysis, we don’t search for relationships, meaning, trends and implications, and we don’t synthesize what we learned from analysis.

Holistic planning comes from the theory of **holism**. “The theory that reality is made up of organic or unified wholes greater than the simple sum of their parts.”⁴ With any type of planning in the new century, we must view our situation not in isolation but as a whole that connects to other wholes. With holistic planning, we must always search for obvious and disparate relationships and attendant linkages. Quite simply, because of the construct of the world and living things, we can’t develop plans that isolate a situation or event through reductionism and analysis without understanding how that which we’ve isolated relates and connects to other things through synthesis. To do so is folly and places us at great risk. Whether we’re planning to make money in the stock market or planning and executing a battle in the military, we can’t view things and events in isolation — everything is connected, everything relates in one way or another. With this view in mind, it only makes sense to plan holistically.

Decisionmakers and planners analyze better than they synthesize because our society emphasizes analysis and rewards those who rely on nonrelational statistical analyses, reduce problems into simple parts, and draw inferences in isolation from relationships. For most people, analysis comes more naturally than synthesis. Typically, because of our number-oriented proclivities, we draw conclusions and lay our plans from reduced and compressed data. It’s at this point traditional processes of thinking and planning break down and cause me such concern. Normally, planners don’t do well in putting reduced data back into wholes, in finding relationships, or engaging in a higher level of meaning to seek and find understanding.

Typically, thinking orients on the short-range. **The primacy of needs of the moment** strikes a chord in the hearts of those who have worked in high-pressure jobs. After all, how can we engage in the long-term when we stand the risk of ruin in the short-term? Besides, the immediate is easier to deal with than a much more ambiguous and foggy long-term. Emergencies and requirements for immediate success or profit influence thinking and planning rather than the future and extant implications of causal effects.

Atypically, thinking involves a broader perspective and long-range focus. Typically, thinking flows linearly, uses analogy, and extrapolates from historical trends. Atypically, thinking involves originality and creativity, “the quality of originality that leads to new ways of seeing and novel ideas . . . a thinking process associated with imagination, insight, invention, innovation, ingenuity, intuition, inspiration, and illumination.”⁵

The Heart of the Matter

Man is a frivolous and incongruous creature, and perhaps, like a chess player, loves the process of the game, not the end of it. And who knows . . . perhaps the only goal on earth to which mankind is striving lies in this incessant process of attaining, in other words, in life itself, and not in the thing to be attained, which must always be expressed as a formula.⁶

Dostoevsky

We often think by the process of **reductionism**, “a procedure or theory of reducing complex data or phenomena to simple terms.”⁷ Reductionism provides a way to explain complex situations. Reductionism produces isolated analyses. Facts become ends unto themselves, without relationships and relevancy.

Reductionism and pure analytical thinking are inseparable. Nothing is inherently wrong with analytical thinking unless it occurs in isolation, failing to seek meaning and relationship. Analytical thinking finds facts and increases knowledge. But analytical thinking processes easily and seductively becomes the end-state rather than a mechanism to search for relationships inherent to higher-level meaning. Our thinking must never simply concentrate on its own processes. No, we must concentrate instead on the end, goal, objective or purpose behind our expenditure of intellectual energy. It follows, then, that we need to take another step in our thinking and habitually combine results of analysis into a relational whole, find meaning and relevance, and think critically and creatively through **synthesis**, the key to holistic planning.

Two primary reasons cause reductionism to be so dangerous:

- ◆ First, reductionism parses phenomena into their simplest states. Simple views can lead to overly simplistic, shortsighted, ineffective thinking.
- ◆ Second, reductionism causes planners to concentrate on the means to attain ends instead of focusing on the overall goal. Reductionism causes the **process** to become preeminent instead of the **goal**.

Our experience in Somalia is an example of what can happen when reductionism dominates the minds of our political decisionmakers. Somalia seemed like a very simple problem: Go, be humanitarian, save other human beings, provide them food, then get out. Simple. The Somalian society was ignorant, poor, uneducated and backward. Somalia though, proved quite the contrary. In fact, Somalia proved to be very complicated — complicated in its own right, and complicated because of its relationships with the world. Within Somalia itself, social, economic, military and political forces were extraordinarily complex. We couldn't see the complexity because we were engaged in reductionism.

The complexity of the United Nations, linkages with mass media connected globally through communications, and volatile political situations in the United States and other countries proved to be catalysts to increase volatility and complexity in an already volatile and complex situation. Our

proclivity for reductionism led us to believe the mission would be a simple easy-in/easy-out task. We failed to realize simplicity doesn't exist; we must think about relationships and long- and short-term effects of what we plan and execute. Mission creep and attendant problems with strategic goals, national will, and international political repercussions proved to be side-effects and demonstrated what happens when we reduce a situation to simplicity without working hard to understand the relationships and complexities inherent to a given situation. No matter how backward, no matter how dissimilar from the swirling cauldron that comprises the United States, we can't reduce complexity into simplicity without peril.

When thinking and planning in a reductionist, short-term way, additional debilitating results occur. Our plans have little relevancy and continuity with the future. Reductionist plans fail to identify and understand relationships, and they seek an end-state rather than an evolving series of states-of-continuity. Reductionist, short-term plans don't deal with the process of perpetual change. Change causes turbulence and chaos, which, in turn, cause incoherence. Rather than develop plans flexible enough to adjust, planners wait, then react to change. They rely on taking advantage of opportunities rather than creating them. Their plans often fail. Plans also fail because of variables and surprise. Without synthesizing the results of analysis into wholes, searching for relationships among wholes, and using the energy of change, planners inevitably react to perturbations. Reaction is negative; it consumes rather than creates intellectual energy. Thus, confusion rules and paralysis surfaces, wielding great influence on the minds of thinkers and planners.

Last, rigidity dominates reductionism. The oversimplification that characterizes reductionist thinking and planning contributes to rigidity. Oversimplified plans don't have feedback mechanisms enabling adjustment while a plan unfolds because ends and means appear very simple. Expediency and regimens obscure complex relationships. Sir William Slim, a famous British World War II commander, tells us in his book *Defeat Into Victory*, for example, that Japanese military planners in the Burma Theater were totally inflexible. They didn't plan for unexpected, chance events and couldn't adjust once affected by the inevitable surfacing of perturbation the unexpected caused. After their forces started enacting a plan, they couldn't react well to friction or variables. The original plan often dogmatically ruled even when the situation warranted change.⁸ As a result, Slim and his planners easily forecast their activities and responses to change. Japanese rigidity led to failed plans and inevitably their doom.

Coherence

Holistic planning has as its underpinnings a trinity similar to Clausewitz's trinity of war. Coherence, combination and continuity comprise the trinity of holistic planning. To unleash the powers of holistic planning, we must first understand its constituent parts, then strive to keep these elements in balance.

Coherence provides meaning and harmony among interacting parts of a plan. Coherence begins with a vision, a leader's or planner's mental sketch of a state-of-continuity. A leader's intent, which flows from the vision, sketches a state-of-continuity. Thus, a lucid and well-thought-through vision is the *sine qua non* of holistic thinking and planning,

It is by means of strategic vision that the statesman shapes and controls projected change instead of simply reacting to the forces and trends that swirl without direction into the future. He accomplishes this by dint of imagination and creativity and by balancing idealism with realism.⁹

Each plan's state-of-continuity links with a future state-of-continuity, a whole interacting with a larger whole. To be coherent, a vision extends from the present to the future. In an abstract way, the planner always peers beyond the final curtain of the state-of-continuity to form follow-on activities or states-of-continuity. These states-of-continuity must relate to other states-of-continuity shaping conditions for coherency.

Holistic planning needs vision that enables parts to come together at the right time and right place to achieve desired effects. Effects influence conditions and eventually desired states-of-continuity. Understanding, which emanates centrifugally from the creator of the vision, cements constituent parts of a plan. For example, in the American Civil War, General Grant understood better than any other general how actions in widely separated theaters of war complemented one another. We can more fully understand Grant's strategic vision and its relation to coherency and the theory of wholes with help from historian James McPherson:

Perhaps Grant's greatest qualities as a commander were his wide strategic vision and his fixity of purpose. . . . Grant's perspective embraced the whole scope of the twin theaters of war, and he was never deflected by purely geographical objectives from his main purpose of destroying the Confederate armies.¹⁰

To use coherence in any planning endeavor, we must recognize and seek balance between moral and physical domains, tangible and intangible elements of a situation. Deception, for example, shapes images in the minds of opponents; it provides a framework for surprise, and it helps keep our opponent unbalanced and fearful of treachery. Those who use deception create physical conditions such as marshaling, combining, and putting resources in place to add credence to an induced suggestion growing in an opponent's mind. Holistic planners create images in an opponent's mind through suggestion and hints they often implant through manipulation of variables, tangible and intangible.

Combination

To combine things, similar and dissimilar, is a significant mental challenge. Regardless of difficulty, combination remains the key to understanding, then reaching a desired state-of-continuity. Combination also leads to synergy where the whole is greater than the sum of its parts. Before we can combine, however, we must understand linkages, cells and relationships, then synthesize this understanding into a higher level of meaning. Combining parts or wholes of resources and impregnating them with life-force, constitutes art in holistic thinking and planning. Artistically combining parts of a whole produces a collage that the spark of creativity brings to life. The collage acts out its life, focused on its goal, full of sound and fury, on the stage of strife¹¹ only to wither eventually in the face of succeeding evolutions of change.

To combine effectively, we must first fragment existing wholes, ours and our opponent's. We have to know and understand highly interactive strengths, weaknesses and characteristics of both sides in a competition. We can then combine fragments into aggregates that help us reach our envisioned state-of-continuity or that provide a comprehensive understanding of interlocking wholes stretching into the future. We also can imagine the steps we must take to reach the initial state-of-continuity and its subsequent relationship with the future. Clausewitz helps us understand the concept of combination:

The strategist must . . . define an aim for the entire operational side of the war that will be in accordance with its purpose. In other words, he will draft the plan of the war, and the aim

*will determine the series of actions intended to achieve it: he will, in fact, shape the individual campaigns and, within these, decide on the individual engagements.*¹²

Planners realize environmental, political, physical and intellectual constraints have a strong influence on their choices of combinations, aggregates and sequencing. In such a mental process, knowledge evolves from simple knowledge to complex — knowing, understanding, relating. With such an approach, analysis and synthesis form an interactive, constantly changing whole.¹³ With this very abstract whole, planners form combinations of resources capable of structuring conditions and creating effects conducive to a desired state-of-continuity.

Continuity

Plans have no end; they're only parts of new states of being, parts of the evolving future. Because plans aren't ends in themselves, the planner's job never finishes, though planners feel compelled to seek closure. Because of a constantly evolving future, holistic planners create branches and sequels. In a conceptual sense, branches of a plan resemble the branches of a tree. Branches enable planners to accept planned deviations from an original state-of-continuity to a slightly different one. Branches are important because of volatility in enacting parts of a plan, outside variables, and vagaries of environment. Holistic planners develop sequels to enable them to move toward follow-on states-of-continuity. The underlying premise of states of continuity, branches and sequels, *a priori*, is change is never finite and future is infinite.

Continuity links our actions with the future. Continuity also couples activities and wholes within the framework of a plan. Planners aggressively seek continuity to exploit relationships among wholes, combine wholes, develop relationships (connections) among wholes, and know how and when to sequence aggregates. Present states-of-continuity strongly relate to future states-of-continuity. Created effects of a plan, in reality, build bridges to follow-on plans, bridges to the future. Thus, while working toward something appearing permanent, holistic planners recognize the **temporary nature** of any state-of-continuity.

With process toward a state-of-continuity, holistic planners create sequels based on feedback from enacting the current plan, new leadership desires, and information about effects. As the follow-on plan unfolds, planners again strive to build coherence through vision. To this end, they create conditions nurturing their sought-after state-of-continuity, maintaining momentum, developing combinations that make the best use of resources, searching for combinations that create synergy, and seeking coherency to understand relationships and links. As a plan unfolds, planners adjust to changes in the environment and think about even more sequels.

Flexibility is the life-blood of continuity; it becomes manifest in a planner's mind through planning branches. At the simplest level of abstraction, planners can anticipate reaching a desired state-of-continuity in many ways. A state-of-continuity resembles a floating cube — the sides present slightly different views. Planners, therefore, seek to vary combinations so that movement toward the state-of-continuity doesn't stop because of an incomplete view. In this quest, the path is important. The planner can identify the path to reach a desired state-of-continuity. To add even greater power though, the planner identifies the path but builds in latitude for those seeking the desired state-of-continuity by alternative paths. This method is indeed one of the keys to enabling creativity in the minds of subordinates to leap forth boldly.

When attempting to maintain continuity, the originally desired state-of-continuity can't be sacrosanct. If situational variables warrant, the state-of-continuity should change. When a force

initiates violence against an opponent, for example, unexpected effects can cause unexpected outcomes.¹⁴ These outcomes provide opportunists ways to adjust goals leading to a desired state-of-continuity. Typically, outcomes aren't intractable; actual outcomes differ from those imagined.

Variables and friction cause plans to unfold imperfectly. Furthermore, in every plan something or someone will oppose us. When faced with an unpredictable opponent, political variables and normal friction, either surprise or obstacles will always surface. If planners have anticipated alternatives, or branches, that allow progress toward the state-of-continuity despite unforeseen events and have planned to adjust a state-of-continuity, the plan will be adaptive and effective. If planners haven't anticipated surprise or impediments to motion, the plan will be reactive and ineffective. Theorist B.H. Liddell Hart succinctly captures the need for flexibility:

*In any problem where an opposing force exists, and cannot be regulated, one must foresee and provide for alternative courses. Adaptability is the law which governs survival in war.*¹⁵

A holistic planner also has to think about linkage within a plan's framework. The planner has to create combinations of wholes, aggregates of partial wholes; strengthen and protect their linkages; cause their activation; and sequence them to promote continuity of movement toward the desired state-of-continuity. We can use Clausewitz's theory about war to explain this continuity of linkages:

*If we do not learn to regard a war, and the separate campaigns of which is composed, as a chain of linked engagements each leading to the next, but instead succumb to the idea that the capture of certain geographical points or the seizure of undefended provinces are of value **in themselves** [emphasis mine], we are liable to regard them as windfall profits. . . . By looking on each engagement as a part of a series, at least insofar as events are predictable, the commander is always on the high road to his goal.*¹⁶

Once again, if we continue to observe and construe events as isolated, with value only unto themselves, we'll forever fail to grasp the power of holistic planning. We must be uncomfortable with solutions and we must constantly search for new combinations, more continuity, greater coherency. We must strive to think by using synthesis and plan holistically.

Enlarging Dimensions of Minds: Shaping the Future

How can human beings change how they think and plan to shape the future actively? How can we learn to combine analysis and synthesis and think and plan holistically? The solutions offered here provide a means and describe how to think, not what to think.

Simply put, the secret to thinking through synthesis and planning holistically lies in something that has been around as long as man has breathed — learning. Three broad approaches form the principal underpinnings of learning how to think by using synthesis and how to plan holistically:

- ◆ First, we must actively teach, coach and counsel our subordinates, children and students to learn how to engage in thinking through synthesizing and holistic planning. Such activity needs to take place at home and in our societal organizations. Learning of this type should complement, not compete with, traditional ways of teaching and learning. Leaders in any walk of life must make a commitment to mentor, teach and coach their subordinates to think and plan the way I advocate in this paper.
- ◆ Second, we must accept the inevitability of the responsibilities of organizations to help their people think through synthesizing and plan holistically. Along with improving the lot of

humanity, organizations will improve their capabilities, abilities to think and plan about the future, and adaptability to change dramatically.

- ◆ Third, individuals must accept that they have a responsibility to learn how to think using synthesis and plan holistically. Individuals must try to think using synthesis and plan holistically to make sense of complexity and change, then excel in a complex world.

We must also form a new paradigm for thinking and planning. Its foundations must be the imperative for attempting to achieve, in all we do. The three interconnecting parts of our paradigm are **coherence**, **combination** and **continuity**.

Our quest for **coherence** means we must strive to seek relationships between parts of wholes. These relationships are real and we need to make sense of them.

We must also learn to combine pieces into wholes. Our efforts to combine must take into account bringing together pieces that sometimes appear disparate along with combining those obviously related. Through effective **combinations**, we can achieve wholes greater than the sum of their parts. We can create synergy.

We must also realize there is never an end in anything we do. What we experience, even in death, is a state-of-**continuity**, and not an end-state. Our states-of-continuity connect and stretch far into the future.

We must adapt our attitudes to accept change as something positive. We must view change as a force that can help us shape the future. Author Frederic Brown has some interesting thoughts about the nature of change that currently confronts the United States:

Today, we peer into a future that promises increasing rates of change in all aspects of human endeavor. Knowing that, is it not prudent to plan and even to organize specifically to master change? . . . The salient leverage of the information age appears to be innovation and initiative.¹⁷

When change becomes a positive instead of a negative force, its exploitation will come naturally. Change should cause neither paralysis nor muddling. Change can help us adapt to environment and accomplish goals.

We also need to modify our *Weltanschauung*.¹⁸ This change will be challenging but, as physicist David Bohm explains,

Man's general way of thinking of the totality . . . is crucial for overall order of the human mind itself. If he thinks of the totality as constituted of independent fragments then that is how his mind will tend to operate, but if he can include everything coherently and harmoniously in an overall whole that is undivided, unbroken . . . then his mind will tend to move in a similar way, and from this will flow an orderly action within the whole.¹⁹

As members of organizations, we'll be involved with thinking and planning. To avoid the pitfalls of reductionism and reacting, and to shape the future, we have to adjust the way we usually perform. Instead of concentrating only on analysis, we must remember that with analysis there will always be another mental step — synthesis. With synthesis, we can create. We also have to think about opposites, wholes and states-of-continuity from our perspectives and those of our opponents. Thinking about opposites will always be difficult; most people don't normally think dialectically.

Yet, the pure form of dialectic thinking, instead of convoluted adaptations used by communists of the former Soviet Union, can help us find creativity.²⁰

In our organizations, we should form matrix groups that promote ascendancy of holistic planning. Decisionmakers must purposefully populate these groups with people who think dissimilarly. Also, each member of a work-group should have a specific functional expertise; however, each would work toward accomplishing a thinking and planning goal that transcends personal goals and the goals of the parent organization. Senior leadership would appoint a synthesizer responsible for developing the plan. Synthesizers search for relationships with members of the group, identify linkages, and pull together fragments into wholes. Along with teaching group members to think by using synthesis, the synthesizer enables the group to develop holistic plans.

To reach a desired state-of-continuity, synthesizers would encourage group participants to engage in higher-level thinking by searching for coherence, combinations and continuity. A synthesizer would foster integration by requiring planners to participate in in-process-reviews and would ask planners questions to promote synthesis. A synthesizer would help find meaning, relevancy and short- and long-term effects in planners' intellectual energy.

Thinking and planning sessions should promote thinking by using synthesis, thus serendipitously encouraging holistic planning. Leaders should confront planners and challenge them to rise above analysis and reductionism, think at high levels, and search for combinations, relevancy and meaning. They should subtly promote synthesis, the key thinking skill in holistic planning, by searching for coherency, meaning and closure after each thinking and planning session.

Neither instructors nor seminar leaders in any institution should teach method, procedure or fact without helping students to learn relevancy and relationships to other methods, procedures or facts. Instructors must continuously ask students: So what? Why? What does it mean? How does it relate to other things? How can we combine things to create synergy? Examinations, presentations and papers can't be simple regurgitation of facts — students must relate facts to other things, display synthesis, and create, evaluate, adjust and criticize combinations.

Members of our organizations need learning experiences in high-level thinking and planning so they have to deal with a volatile future and work with complicated resources and states-of-continuity that appear unrelated. Through such processes, people in organizations will discover relationships of obvious and disparate entities. Through the discovery of relationships, synthesis will occur. Through synthesis, planners will learn to combine pieces into wholes. Wholes will have meaning and will relate to an evolving future. People in our organizations should engage in thinking experiences in which they have to deal with long-term effects.

After developing holistic plans, in a wargaming sense, **planners should design ways to defeat their own plans.** To do so, they should concentrate on identifying relationships, searching for links among wholes, and destroying their own plan's coherence. From the results of this conceptual assault, planners should design their own alternative states-of-continuity and branches and sequels. Planners also should seek and design ways to exploit patterns and shapes through fragmenting wholes, synthesizing those fragments, and developing and aggregating new, more meaningful wholes.

We need to find creative thinkers and innovators and involve them in developing holistic plans to shape the future. Creative people enjoy developing new ideas, seeking relationships, and searching for unorthodox solutions. I don't, however, advocate complete reliance on creative thinkers, because "Too many innovators, each marching to his own drum, produce chaos."²¹ Very quickly we would live in a world of wonderful dreams in which reality would always remain shrouded by intellectual

fog. On the other hand, if we lived in a world controlled only by analytic thinkers, we would live in a dark world dominated by exigencies and limits of reality. We would always deal with what is, not what could be. I believe we need to combine creative with analytic thinkers and require them to produce wholes relevant to our new century. In such an approach, opposites would interact to produce fresh, creative ideas tempered by realism.

Mental capability, our most treasured asset, has positive and negative sides. The positive side shows human beings endowed with a wondrous, brilliant inner light manifesting itself through thinking. Through thought, we have the potential to create, heal, save. The negative side of our mental capabilities can lead us to seeing things in isolation, being solipsistic, succumbing to passivity, sublimating positive will to negative fatalism, and adhering slavishly to status quo. Simply put, I believe a crucial contest rages within us. In this contest, the negative competes with the positive for dominance. If the negative side dominates, people view change negatively. If the positive side dominates, people run the risk of being overly optimistic. If balance dominates, people can create their futures.

Our minds need the balance the negative side provides. The negative must interact with the positive to form a whole, maintaining a delicate equilibrium between positive and negative. The negative side of our mental capability competes for dominance with the positive side. Reducing the contest to its simplest state, failure to balance and exploit the wholeness of our minds means that change could cause reactive behavior, a philosophy of the righteousness muddling along, or the deadly stultifying effects of mental paralysis.

Through these subtle yet real interactions of opposites, a new wonderful, higher order and creative synthesis can emerge. Thus, a 21st-century planner's greatest challenge will be encouraging that creative synthesis and holistic planning by controlling the mind's negative side while enabling the positive side to spring forth. This interaction of opposites and attendant balance will provide the brilliant ideas needed for creation and the pragmatism for these ideas to survive.

In my view, adapting thinking through synthesis and holistic planning are imperatives. The world is becoming more and more interconnected, more complex, more layered with webs, relationships and networks resembling gigantic cobwebs stretching as far linearly, temporally and in depth as we can imagine. Author Kevin Kelly states, in this regard,

The central act of the coming era is to connect everything to everything. All matter, big and small, will be linked into vast webs of networks at many levels. Without grand meshes there is no life, intelligence, and evolution; with networks there are all of these and more.²²

The choice is very clear: adapt and think through synthesis and plan holistically, or be left behind in attempting to understand the changing webs of information that will make up our world.

Our individual and collective intellectual strengths are the quintessential elements of the new century. Our intellects, individual and aggregate, constitute unexploited dimensions of potential power. To unleash or not to unleash the potential lying in our minds is our choice. We can change the way we think and plan, shape the future, and move into the next century in a positive way.

Endnotes

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19. David Bohm, *Wholeness and the Implicate Order* (London: Ark Paperbacks, 1980), p. xi.
20. Albert Hofstadter, "On the Dialectical Phenomenology of Creativity," ed. Stanley Rosner and Lawrence E. Abt, *Essays in Creativity* (Croton-on-Hudson: North River Press, Inc., 1974). Hofstadter writes on page 116 in this superb article about creativity, "The essence of dialectical thinking is to find in each case what are the oppositions, conflicts, contrasts, contradictions, the othernesses, estrangements, alienations, that are possible in the context and to find the notion that unifies them by

incorporating and using rather than destroying their tension, a notion that brings them together to belong with one another in a mutual ownness, so that for the first time they can attain to a truth of being that is open to them.”

21. Brown, *The U.S. Army in Transition II*, p. 163.

22. Kevin Kelly, *Out of Control* (Reading, Mass.: Addison Wesley Publishing Company, 1994), p. 201.

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