

**Exploring Cultural Frame-Change:
Towards a Capacity to Co-Create the Next Form of Human Civilization
By Modelling the Evolution of Human Consciousness and Culture**

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Abstract:

This paper is intended as a methodological contribution to the development of our capacity to see and think through the evolution and transformation of human consciousness and cultures more clearly and deeply. This, of course, is merely the platform on which we must stand if we, in the 21st Century, are to learn to take responsibility for the ongoing evolution of our lives, families, organizations, jurisdictions and whole cultures. It is assumed that the survival of human beings depends on this development. The paper sets out three models used by Foresight Canada – models that we find to be helpful and generative. Model 1 introduces the idea of levels of generality as applied to human consciousness and cultures. It identifies three levels of generality at which every human culture functions – doing, thinking and sensing. Model 2 refines the first by distinguishing seven levels of generality at which human consciousness and cultures can be grasped and understood. Model 3 uses the two elements of Model 2 that are seen to be the fundamental foundations for any culture – its assumptions about the nature of *reality* (ontology) and the process of *knowing reality* (epistemology). It sets out four possible combinations of ontological and epistemological assumptions and uses these to map the human journey of the last 200,000 years. This map also generates insights into where we are today and in which directions we must move if the human enterprise is to continue.

Motivation:

Over the last forty-some years, one insight has captivated my imagination and held my attention – the sense that ours is one of the few times during which history may well move on to a truly new course and that unlike past instances of trajectory-altering times, the current project can only be accomplished with our conscious cooperation; and that there is not a society in the world that is alive to this prospect. Testing and refining this sense has become my life's work. Accordingly, I have thought about, developed, refined, utilized and taught the three models set out in this paper – models of *different aspects of long-term change, evolution and transformation of human consciousness, cultures and civilizations*. I have done so in a variety of settings – university courses, government policy formulation, futures research projects, community engagement processes and training workshops. However, until now, I have not written up this material in a way that can be offered to the wider community of foresight scholars and practitioners for their comment, refinement and use. Given my age – 68 – it is time to do so. The COST Action 22 conference is a setting for which I am thankful. Be assured that the models stand on their own. While they illuminate the sense that has driven me to them, they do not presuppose it. Your comments and advice will be welcomed.

A. GETTING STARTED**The Project This Paper Serves:**

After forty-some years as an explorer of the future, I have come to the following views. As a reader, you need not share them. They are set out here only to make explicit the assumptions regarding this moment of history that make this paper understandable.

1. The *end*, the *good*, the *project* that overrides all others for human beings is that **we keep open for future generations the possibility of a reasonably prosperous, secure and graceful human future**. I would like to be able to say, that the human adventure should be *sustained*. But I cannot, as the language of *sustainability* is no longer about the project on which I am focused. Sadly, the language of 'sustainability' has largely become a code word for, "*How can we keep the present late modern, Industrial game going?*"
2. **Securing the human future is our overwhelming challenge of the 21st Century**. In the early 21st Century, contrary to much popular thought, it is not planet Earth that needs saving, but the *conditions that are required for the development of a reasonably humane and deeply satisfying human life*. This planet is fine. It has every prospect of another 4 billion years as a complex adaptive system that will be able to evolve a wide variety of living species before our sun explodes and then dies. Rather, it is the conditions for truly human living that are now at risk.
3. Further, the core issues of the 21st Century are essentially unfamiliar – those of the humanities and social sciences – not those for which we are prepared – economics, finance and engineering. Quite without shame, a second order anthropomorphism is now called for. While the perspective expressed here is not wholly aligned with those who talk of the emergence of the Anthropocene Age, both views capture the fact that **for good and ill the future of humanity now rests, as never before, in human hands, hearts and minds**.
4. If we are to survive as a truly human species, we now face a new requirement – **as persons, organizations and whole cultures we must accept the obligation of consciously intending and shaping the ongoing evolution of both humanity and the planet**. I understand that this demand is neither widely-seen nor deeply-understood. Worse, the majority of the 6.5 billion persons with whom we share the planet will experience this call as blasphemy. Regardless, the call to take up this new work cannot be avoided.
5. The essential reason is that **the conditions that have allowed our species – *Homo sapiens* – to evolve and succeed over 200,000 years by an almost wholly unconscious process are eroding and will soon be gone**. We must face, explore

and digest the fact that we can no longer rely on the generosity of the planet and the structure of our own biology to save us from our foolish ways. The choice we now face is either to become conscious co-creators of our lives and cultures, or to die. In other language, it is time for us as a species to grow into a deeper adult maturity; to accept a full adult responsibility for our future. Given the point above, the Earth is indifferent to the choice we make. It will be fine, either way.

6. **For the first time, conscious cultural frame-change lies ahead for all of us.** Growing into this new assignment will entail an evolution and transformation of the most fundamental frames of reference and ways of living of all existing human cultures. Put negatively, no culture as it stands now is able to comprehend, much less meet, the strategic challenges of the conditions that will emerge in the 21st Century. Our new wine requires new wineskins. Put positively, the hope of humanity lies in seeing our selves and situation afresh, thinking through the implications of what we are seeing with new minds and learning to live in new ways toward new ends.
7. **There is hope.** Although unseen by most observers, the conditions we require to grow into the new role of conscious co-creators of our lives and cultures have been developing quite nicely over the last few centuries. I point, for example, to the emergence and transcendence of Western empirical science shaped by Newtonian categories; to the emergence and transcendence of post-modern thought; and to the emergence of a growing capacity to engage in and sustain second order, reflexive thought about the nature and evolution of human consciousness and cultures. Consider the fact that this paper could not have been written in 1965, nor would it have been understood then at a conference of self-selected futures researchers.
8. **There is much work to do.** As yet, no society raises its children in light of the insight that they may well face conditions unlike any faced previously by their culture; and that, therefore, the most fundamental work they will face as adults will be consciously to evolve their society in truly novel ways – ways that move it beyond its inherited mythos, perceptions, identity, aspirations and organizations. Put negatively, every culture still raises its young with the implicit claim that the cultural thought forms and frames of reference they have inherited and the ways of living that express them will still serve their children's children's children. This situation is benign if and only if ours is a time, globally, of essential continuity of the conditions within which our forefathers and foremothers lived; a time during which the forces of change are not driving us off our inherited mental maps and business models into *terra incognita*. The trouble is that as professional practitioners of strategic foresight we know there is growing evidence against the continuation of the conditions required for the essential stability of persons, cultures and whole civilizations.
9. **We are, then, in grave danger.** Foresight Canada's research suggests that, contrary to widely-held beliefs, ours is a deflection point in history – one of those rare times in human history during which a truly new path to the future is being forged. And, as noted, as a species, we are acting as if this is not the case. What is more, the issues of profound societal change, cultural frame-change and the need to consciously learn to become responsible agents of evolutionary change on a personal, societal and cultural scale are not yet on our public agendas. Rather, the default view of every culture is as it always has been – *that whatever future we face, our essential character, identity, aspirations and organization as a culture will continue and continue to be valid*. Try as we might, we in Foresight Canada, have not been able to find even one significant think-tank, foresight unit, policy shop or university institute in any country that is organized around questions such as these, "Just how different will the 21st Century be?" "Will it fit within or burst our inherited perceptions and deepest assumptions?" "Do we now need to understand the dynamics and conditions of the long-term change, evolution and transformation of the frames of reference of whole cultures and even our civilization?"
10. Ashby's law of requisite variety suggests that if we are to learn *to govern evolution*, to use Walt Anderson's phrase (Anderson, 1987), and do so successfully, **we must develop ways of seeing, thinking about and acting towards ourselves as a**

species that are at least as complex as we are as a species. That this condition of survival is not now being met is obvious. That we must act to meet it is urgent.

11. **One contribution to this work would be the development of more adequate ways of seeing and understanding the long-term evolution of human consciousness and cultures** – ways that would enable us, reliably, to notice, explore, think through and act appropriately towards ourselves, each other and the truly strategic (history-altering) issues we must face and work through together in the 21st Century. In short, it would be a gift to all of us to be able to think deeply and clearly about the frames of reference of both cultures and civilizations, and about the conditions under which they remain stable and those that lead to or require cultural frame-change. This paper seeks to contribute to this truly strategic project.

Cultures, Civilizations and the Core Challenge of the 21st Century:

For our purposes, a 'culture' can be understood as:

a human way of seeing, attending to, patterning, exploring, understanding, knowing, experiencing, intending and acting within a particular time and space that continues largely unchanged over long periods of time, is widely-shared, relatively coherent and passed from one generation to another by processes of socialization that are largely unconscious.

This implies that we should not speak of 'Western culture', if we mean to include the long period of development of Western civilization from the ancient Hebrews and Greeks to the present day. Over the last five thousand years too much has changed to be caught in a single culture. Therefore, we speak of the continuities in the long evolution of the West as the evolution of a variety of cultures within the wider story of Western Civilization. The discontinuities among cultures in a single civilization can refer to changes in either space or time. The differences among French, German or Romanian cultures exemplify the former, while the differences between Medieval and Industrial Britain exemplify the latter.

For our purposes, the essential points are these:

- To be truly human, more than merely a human animal, is to live with others within a culture. Conversely, no culture, no human persons.
- Every culture is a way of living that makes meaning of and responds to the nature of reality and of human persons; the place of humanity within reality; and the situation – time and space – in which it finds itself. We note that any given culture not only conveys information about what is known, it de-limits what can be known. Further, for every culture there are ideas that cannot be known in and by that culture – ideas that, if known, would corrode the foundations of the culture and lead to its decline.
- Every culture makes an implicit guarantee to its young that if they continue to live in the inherited ways, then they and their descendants shall thrive. Every culture is betting its future on the cosmic reliability of the ways it creates meaning and construes human life. In this generic sense, every culture can be said to be a 'knowledge culture'; a culture whose future hangs on the adequacy of what it now takes as known and knowable. (Nelson, 2007a) Since such knowledge is at the heart of the identity of a culture, every long-lived culture uses both carrots and sticks to ensure the continuation of its identity in an essentially unchanged form.
- Today, as throughout history, every existing culture assumes that its ways of making sense and of living are adequate to the present and the future. Indeed they are encouraged to do so not only by political correctness, but by the views of such bodies as UNESCO and the cultural policy of most governments. As a result, as noted above, no culture, at least as yet, has faced up to the issue of cultural frame-change – the new requirement that survival in the 21st Century requires changes to its most fundamental ways of interpreting and responding to reality. None prepare their young for the future with the central thought that at some future point in their lives they will have to re-learn the most fundamental things about reality itself, the relationship of the human to reality, most human roles and relationships; and that in time such learning will lead to a truly

new form of culture that transforms, not merely extends, the old. Today, to even voice such thoughts in most places on the planet is to be branded a heretic, if not a traitor.

- However, the fact that a culture is predisposed to live by inherited conceptions and forms, does not in itself provide protection against the possibility that it may awaken one day and find itself in a situation that, in principle, it cannot even comprehend, let alone deal with successfully. If current research is to be believed, up to now, all cultures that have faced such a truly puzzling crisis have collapsed. (Diamond, 2002) The lesson seems to be that from the Earth's point of view it is just tough if you cannot cope with whatever is going on in history at the time you are in it. As Langdon Gilkey put it, "*Human freedom in history, does not mean the freedom to escape the fundamental trends of an epoch.*"
- To this day, very few organizations and no cultures have developed the capacity to monitor the changing conditions of history with an eye to adapting their own cultural presuppositions, frames of reference and ways of living in order to meet the new conditions.
- For reflexive foresight practitioners this realization should *awaken us from our dogmatic slumbers* and lead us to explore the following questions with a passion. Seeing, understanding and meeting them, we suggest, is the core challenge of the 21st Century.
 - Just how profound will change be in the 21st Century? Is the world of the 21st Century taking us, and all peoples, off our inherited mental maps and operational models? Are we unconsciously changing our minds about the nature of reality, human persons and the relationship we have to history? Will the forces driving us to do so intensify or dissipate?
 - How much danger are we in? What are the truly strategic threats to our future? Do our societal priorities bear any rational relationship to them?
 - What would we have to learn to be and become in order to develop a critical mass of opinion leaders who are reflexively aware of our emerging situation and able to respond to it with creativity and courage?
 - What support systems, personal and societal, are required to nurture such a sensibility and capacity to respond into being?
 - How long will it take to develop the required support systems and such a cadre of persons? Do we have enough time?
 - Will our grandchildren hate us for our lack of imagination and self indulgence?

Cultural Frames and Cultural Frame-Change:

The point of this paper is to explore and seek to understand the phenomenon of cultural frame-change. This means that all that is meant by this phrase will become clearer as you read on. However, a preliminary sense can be stated. By '*cultural frame-change,*' we point to rare but thorough-going transformations of the ways we as human beings make sense of reality, ourselves and our relationship to reality and the ways life is then seen, thought-about, organized and lived. Think of the long transition, some 10,000 years ago, from living as nomadic tribes to inhabiting towns as settled peoples; or the more recent thousand year journey of the West from pre-Industrial forms of settlement to the Industrial urban and rural forms that envelop us today. These are both examples of cultural frames having changed, albeit unconsciously and apparently successfully.

These examples show, that while truly new cultural forms grow out of the old, they can evolve over long periods of time into whole new ways of living that are not just *new forms of the old culture*. The new ways of living are discontinuous with the old. They are new ways of *doing the human*, and not merely a variation on old and well-known themes. In such cases of culture change the discontinuities simply overwhelm the continuities. Because of this, the children of the new culture will not be recognized as legitimate descendants of the old. Nor are the new children likely to recognize their descent from those who appear to them to be so appallingly different. For example, who among us remembers when it was that most Christian Bishops would have responded to today's version of Christendom with much the same revulsion shown by Osama bin Laden? What is this memory lapse costing us today?

It follows that, when faced with encounters of cultures that are not one's own, persons in every culture will experience a sharp sense of difference and even challenge to one's own identity, i.e. "*You are strange and foreign enough that you are not me. You are the other.*" This form of discrimination is *normal*, in the sense of wide-spread, and likely even unavoidable as a naïve human response.

In the early 21st Century, the issue of learning to live peaceably in the midst of non-trivial cultural differences is securely on our agendas. The fact that the phenomenon of multiculturalism is not central to this paper does not suggest that we are insensitive to its importance; only that in our view there are even more important threats to our future than ethnic prejudice fed by the human capacity to recognize differences. Happily, it is our experience that the understanding and models of frame-change set out here are helpful both with what is for us the overwhelming issue – adapting our consciousness and cultures to the emerging conditions of the 21st Century – and with the more immediate issue of how we who are so very different in many ways might learn to live in relative peace.

The relationship among the three models set out here is this:

- Model 1 uses the concept of three different levels of generality in order to introduce two key ideas. The first distinguishes among and explores the relationships among *doing* physical things, *thinking* about doing physical things, and *making sense* of both things and thoughts by the patterns of human consciousness. The second is the idea that societal change must be read and understood at any and every level at which non-trivial change is occurring at the time one is reading it. These distinctions allow us to note that since ours is a time of three-level change, a three-level understanding of change is required; but unfortunately, virtually all our institutions, at best, function on only two levels. This disjunction between the depth of change and the depth of our capacity to read and respond to change is said to be the source of our most profound crises.
- Model 2 refines Model 1. It presents a seven-level set of fourteen distinctions that allow us to pay attention to and work with societal change in a way that is more fine-grained than the three levels of Model 1. It allows us to see the need to develop a coherent line of sight from the most fundamental unconsciously-held presuppositions of a culture through to the actual results of specific human actions. That no culture has this capacity today becomes obvious. That this situation cannot continue if the human species is to continue also becomes obvious.
- Model 3 uses the ontological and epistemological assumptions that are identified in Model 2 to create a map that allows us to track and make sense of the evolution of human consciousness and culture over the last 200,000 years. Further, by using this map we can generate insights into today's strategic issues, and anticipate the emerging challenges of the 21st Century as well as the possible shapes of tomorrow.

B. THREE MODELS OF HUMAN CONSCIOUSNESS AND CULTURE

Since it is difficult to see and think coherently about long-term cultural change, evolution and transformation as a single whole, it is useful to distinguish among the levels of generality at which all cultures actually function. In saying this we are assuming the following as ideas in good currency: reality cannot be adequately grasped from a single perspective; rather, multiple perspectives are required; understanding a complex condition not only requires multiple perspectives from a given level of generality, but also multiple perspectives from multiple levels of generality. Alberta Einstein's quip – "*The significant challenges that we face today can not be solved at the same level of thinking at which they were created*" – reflects both these ideas. The fact that Einstein's remark is so often quoted today can be taken as an indication of the intuition that ours is a time in which we must shift our perspective among various levels of generality if we are to see, think about and act towards the world in appropriate ways. Single-level seeing, thinking and acting, called a *flatlander* view, will no longer do.

The idea of levels of generality raises the question, "*Just how many levels of generality are there in the physical and cognitive work of a culture and what ways of thinking about them are helpful?*"

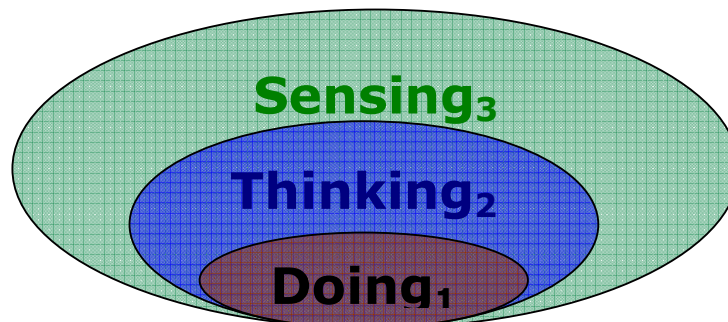
In response to the first question, we are all used to working with and moving among several levels of generality. We know that changing our clothes, our marital status and our fundamental stance towards life, while all changes are quite different activities. This sense is caught in the story of four men who were chipping stone. Each was asked, "*What are you doing?*" The first replied, "*Dah, I am chipping bricks.*" The second, "*I am building a wall.*" The third, "*I am building a cathedral.*" And the last, "*I am helping to lay the foundation for the world's next great civilization.*" Each is an appropriate and truthful response, but they are at different levels of generality.

We in Foresight Canada use both a simple three level model and a more complex seven level model to make sense of our world and understand the role of frames and frame-change in human affairs. Note that our focus in both models is initially on a first order, phenomenological description of the physical and cognitive elements of a culture.

Model 1 – Three Generic Levels of Generality of a Culture:

We will begin with the simple three-level model. The levels of generality we distinguish are Doing, Thinking and Sensing (Figure 1). As we understand it, every culture will have cognitive content at all three levels. However, most of that content will be inaccessible to the vast majority of persons in the society because it will have been unconsciously absorbed, i.e. it is tacitly, rather than explicitly, held. Note that we are dealing with each of the three levels as first order phenomena and that Level One (doing) can only be undertaken at a first order level. Doing has no meta-level. While Level Two (thinking) and Level Three (sensing) can be undertaken at meta-levels, they must first be understood as first order activities.

Finally, note that the three levels are cumulative, rather than separate. This means that in any given culture physical things are never just physical things. Rather, they are also laden with both thought and consciousness. Further thinking is never just pure thinking; rather, as Kant taught us some 250 years ago, it is laden with patterns of consciousness. The sense in Industrial cultures that "*technology is just a tool*" or "*thought and action are wholly separate*" is understandable, given the presuppositions of Western Industrial culture, but they are also simply wrong as empirical propositions.



Three Levels of Generality
Figure 1

Doing is work with material things – things that can be moved, photographed or bumped into. If one does not see a physical thing, one can literally fall over it. As we say, it is bloody obvious. Work at this level occurs in the world. It consists of making some obvious change in a physical condition – dirt is moved, a cheque is delivered, a record stored, a person fed. While doing requires that we see and are able to think about that which we are doing, these cognitive processes need not be conscious efforts. A routine is a way of doing something in a repetitive manner that does not require conscious effort. Everyday life is full of routines; otherwise it would be exhausting.

Consider that in stable cultures, socialization is primarily a matter of young persons learning to do things in essentially the same manner as their parents and grandparents did things. In such situations, little needs to be taught explicitly about thinking or seeing, as these skills will be picked up almost wholly unconsciously by a process akin to "cultural osmosis". The up-side of this condition is that life in such settings is straightforward and without cosmic anxiety – things simply are what they are. The down-side is that new ways of doing things are limited to

variations on known themes. The only “new” ways of doing things are ways that are consistent with and do not challenge the unconsciously inherited and tacitly held patterns of thought and perception of the culture.

First order thinking entails *standing back* from doing and considering the business of doing physical work. Thinking entails a move from the body to the mind, since it is an activity that occurs entirely in the mind. This means that thinking cannot be photographed. One cannot literally trip over a goal, plan or strategy, only over the pile of paper on which these are written down. A bad plan can, of course, *trip us up*. But this is a metaphoric, not a literal trip. The immediate results of thinking are never physical changes in the world, but only new ideas about apparently better ways to approach and undertake making physical changes in the world. The up-side of thinking is that it increases the degrees of freedom we have about how we do physical things in the world – freedom that is not available to us when we act unconsciously. By thinking, we can make conscious choices about how, in the future, we can go about doing the tasks at hand. The down-side of thinking is that it is hard work. Note, also that first order thinking, however novel, if it is to be accepted and used in the culture, must still be consistent with and limited by the logic and content of the metaphors that shape the consciousness of the culture. As Panasonic figured out, being more than slightly ahead of the times is to be irrelevant to the present.

Sensing is an activity within our bodies, minds and consciousness – an activity by which we become aware of the presence or absence of something. In order to sense something the strength of the signal that it is there to be sensed must be strong enough to penetrate the consciousness of the person who is sensing. If this condition is not met, then the thing, while present, is simply not there for us. In such cases we say things such as, “*I simply did not see (or feel) it.*” The *it* we did not see can be at any of the three levels of generality – a physical thing, a thought or a pattern of consciousness. This implies that two strategies are available should we want to become able to sense more of what is actually present. First, we can amplify the signal of that which is present. Second, we can develop the sensitivity of our consciousness to the point that we can pick up truly soft and subtle signals sooner. As we shall see, both of these strategies are crucial to sensing, exploring and understanding long-term cultural change, evolution and transformation.

This model sheds light on several relevant features of human societies.

- Every culture has distinctive patterns of consciousness that by-and-large are unconsciously shaped and inherited. Further, a coherent culture is one in which the critical messages at each of the three levels –sensing, thinking and doing – are aligned and logically consistent. There is a single line of sight from the consciousness that defines the culture, to the ways the world is thought about, to those actions that are routinely done in the culture. It follows that a culture will be eroded and destabilized should new concepts, logics, ideas, technologies or ways of doing be introduced to the culture. Insensitivity to this fact has been at the heart of the essential failure of development efforts over the last six decades. Continued insensitivity may cost us the future.
- While our consciousness may appear to be ours alone, it is in reality a community and cultural artefact. The consciousness of any given person is always shaped and certified by the culture within which that person is formed. It follows that those who develop patterns of consciousness that are in conflict with the wider culture soon find themselves being marginalized by the culture. This struggle between established and novel forms of consciousness is the great culture war of the 21st Century. It is at the heart of every culture still defined by its traditions, by every jurisdiction that still defines its identity largely by its inherited ethnicity and even by multicultural cultures.
- Marxists and most Chambers of Commerce claim that physical reality is primary, while thought and consciousness are epiphenomena. They could not be more wrong. To the contrary, sensing is primary; thinking is secondary and physical action is tertiary. We can only act with any degree of rationality and coherence towards that which we can think about. Further, we can only think about that which we can sense, either literally or metaphorically. This is why metaphors are so powerful – the enable us to see that which

we previously could not. It is no accident that every spiritual tradition has some version of this image at its heart: "*Once I was blind, now I can see.*"

- It follows that while it can be a powerful experience to *think outside the box*, it is ever so much more powerful to come to *see the world with new eyes*. The fact that even today most efforts to do new and transforming things involve only thinking and acting suggests that modern cultures are still insensitive to the fact that changing our consciousness of the world is far more powerful than changing our thinking about the world, powerful as the latter is.
- If the only differences among cultures were the obvious things such as curb heights and architecture, we would not experience culture shock. But, in a globalizing world, the experience is both common and profound – people in other cultures are not merely superficially different from us, but they *do the human* in fundamentally different ways.
- The fact that a culture can be grasped at these three levels does not mean that the cognitive content of each level is explicitly grasped and worked with in routine ways by those who inhabit the culture. To the contrary, the condition of being conscious of ways of doing, but unconscious of the defining patterns of thought and consciousness of one's culture is the normal state of affairs for human beings.
- This is safe state of affairs for a culture only *as long as it lives in stable times* – times in which it is a reasonable assumption that the future will be essentially similar to the past and present. Only if we face a future that will differ substantially from our past must we be able to make the reflexive move of learning to see and think critically about our inherited and unconscious patterns of thought and perception.
- The experience of profound personal and societal change is the condition that may drive a people or an organization to awaken to the fact that their ways of living presuppose previously unseen patterns of both thought and consciousness. This reflexive insight may lead them to wonder whether the pattern, they have inherited still allow them to deal adequately with the emergent situation in which they now find themselves. This dynamic has been at the heart of every liberation movement of the 19th and 20th Centuries, be it freedom from slavery or prejudice based on skin colour, ethnicity, gender, age or physical or mental capacity.

Using this three-level model: We can now use this three-level image to shed light on our present predicaments. We are especially concerned with the fact that as persons, organizations and jurisdictions we seem to be almost wholly unable to even acknowledge the fact, much less respond to it, that the evidence has been growing for decades that we face a profoundly different future from the one which we now intend and for which we are now planning. We will also think about how our perspective on work, our organizations and what is involved in running them well has changed since the turn of the last century. A summary of this material is found in Appendix A, *The Three Levels at which We must Work in the 21st Century*.

In 1900, the focus was almost entirely on doing. Only the first level of obvious material things were explicitly seen and dealt with. Then, we administered and operated organizations; we did not manage them. What today we call *Senior Executives* were then *Senior Administrators*. Further, Administrators kept their eyes on operations. There was no management as we know it today. Even operational planning was in its infancy. The questions asked were about finances, products and programs, not about goals, policies and strategies. In spite of its name, Fredrick Taylor's *Scientific Management* was about operations – the detailed organization of work. The central focus was where it always is in stable times with operations and their efficiency – the cost-effective use of resources. In the first half of the 20th Century, planning was Operational Planning. It was the outer edge of an administrator's world. Organizations were what we characterize as Level One organizations – focussed on doing.

In the 1930s, a university degree for organizational operations was invented – the MBA – Master of Business Administration. One might expect it to have been an MBM, but Management as we know it today had not yet been conceived as a separate perspective and practice. This

early 20th Century conception of the work of organizations is still seen in the language associated with school boards and governments, e.g. a new government is often characterized as a new Administration. Note also that the degree in public management reflects this same language. While invented in the 1960s, it was called an MPA – Master of Public Administration.

During WWII, two things happened. First, operations were systematized by the invention of operations research (OR). OR is thinking about doing in a systematic way that made huge differences at the operational level. Second, a new level of generality was re-discovered – that of strategy and the goals it is intended to achieve. Both of these were teased out of the taken-for-granted tactical, operational perspective. Both these moves contributed to the development after the war of a new and distinct view of organizations – that we now call the *management perspective*. If the heart of operations is concern with doing, the heart of management is thinking about doing. A person with a mind of a manager explicitly sees, thinks about and deals with the first two of the three levels in Figure 1.

The central concern of this new view is not efficiency, but effectiveness – the achievement of goals and objectives by explicitly chosen strategies. It is no accident that the book widely seen as the first book on management is *The Practice of Management*, in which Peter Drucker sets out his philosophy of *management by objectives*. (Drucker, 1954) During the 1960s this concern was formalized in such systems as *Management by Objectives, Planning, Performance, Budgeting Systems and Operations, Performance Measuring Systems*. Policy, a fancy word for the strategies that link goals and objectives, emerged as a distinct concern during this time. The first degrees in policy-making were invented in the early 1960s. The first policy advisors were hired by governments during this decade. By the 1970s and '80s, most organizations were struggling to make the shift from Level One organizations – operations and administration – to Level Two organizations that nested operations within the wider concerns of management. By the 1980s, Strategic Planning had become common. It was then, and still is, the outer reach of those with the mind of a Manager.

In the early days of management, it was quite natural to raise good senior operators to the level of manager. Through these decades, many organizations learned the hard lesson that not all skilled operators were suited to the work required at this new level. Eventually it dawned that the mind, instincts and intuitions of a good operator and the mind, instincts and intuitions of a good manager are not at all the same, but quite different. The career ladder that leads automatically from one to the other was recognized as a recipe for disaster. Nevertheless, this practice is wide-spread. Some of us, it appears, simply cannot learn.

Today, strategic planning is understood to be a requirement of good management and a practice that is quite separate from operational planning. *'Strategic Planning'* routinely appears in the titles of Vice Presidents, Assistant Deputy Ministers and Directors. But this was not always so. In 1965, almost no one had heard of strategic planning, much less of the Boston Consulting Group that invented it. In the early days, strategic planning was routinely confused with and reduced to operational planning. However, over the last forty years the practice and methods of strategic planning have slowly been refined and more clearly defined. Bit by bit, as a society, we got the notion that while operational planning is required, it is not enough; that something more is needed to ensure operations are sound and sustainable over long periods of time. Strategic planning emerged as the "something" we required. Today, it has a secure place in the management universe, even of NGOs and church congregations. When the 20th Century closed, Management had become a requirement. Virtually all organizations in all sectors of Western societies now function as Level Two organizations.




Since futures research and foresight emerged at the same time as management it is to be expected that they would be practiced with the eyes and minds of a manager. For elaborations of this theme see Nelson 2004, 2006 and 2007b.

However, there is now a new restiveness in the air. More and better management and more coherent, long-range planning do not seem to be able to bring us the deeply satisfying lives and results we hunger for. To the contrary, there is a growing consensus that we are over-managed and under-led; that today's focus on increasing efficiency is a fetish that will not lead us home (Stein, 2001); and that again something more is needed. In this situation, the language of

leadership, vision and governance is emerging with a sense of urgency that should not be unexpected but is surprising to many.

To date, few take this new linguistic demand as a sign that it is time, again, to move to a new level of generality. Everywhere, if one asks to be shown the senior leaders of an organization, one is pointed to the top 7% of those who do management tasks. Leadership is seen to be something that Senior Managers exercise. The fact that the vast and still growing leadership literature is almost wholly silent on the cognitive work of leadership is a sign that the cognitive work of Leadership is not yet seen as a higher and separate cognitive level of generality that is distinct from the cognitive work of management. For a comparison, see Table 1 on the next page.

Nevertheless, it is our view, that in the next few decades, the cognitive work of leadership will be teased from the cognitive work of management; just as the latter was teased from administration in the mid-to-late 20th Century. As we do so, we will clearly distinguish strategic planning (looking forward and largely inward with a management mind), from foresight (looking forward and outward with the mind of a Manager, and both of these from strategic foresight (looking forward and outward with the eyes and mind of a Leader). The fact that this evolution is not yet clear; that strategic foresight is still routinely confused with and reduced to strategic planning does not entail the fact that there is no difference to be acknowledged. Rather, it may simply mean that the evolution of strategic foresight as the core intellectual work of leadership is emerging so slowly and incoherently that its signal strength is still below the threshold of most managers.

Type of Work	The Work	The Focus	Success Measured by	How Widespread now?	When Systemized
	DOING physical things in any organized area of life	Operations, Tactics, Logistics, Work Plans	Efficiency: ratio of results achieved to resources/energy expended	Virtually universal among the educated	1900 To 1950s
	THINKING about doing things in organized area of life	Missions, goals, policies, strategies & objectives	Effectiveness: degree one's goals are actually achieved by one's activities	Becoming common among the educated, globally	1950s To 1990s
	SENSING/ "Seeing" and grasping the changing historic context in which one lives	Situation – past, present and future – vision. strategic intentions, strategic directions, character, core roles	Relevance: degree of fit between one's situation and one's vision, intentions, directions, character	Spotty, few experts, early networks now emerging	1990s to 2030?

Comparing the Three Levels at which We must now Work
Table I

In our view, if the central concern of administration can be seen as doing and that of management as that of thinking about doing, the central cognitive passion of those who properly practice leadership is the question of relevance – *"What is happening or may happen in the wider context in which we exist over 5 to 100 years that may present trajectory-altering (strategic) threats or opportunities to us as an organization, industry, society, country, species or planet?"* Just as the mind and identity of a manager differs from that of an operator, so the mind and identity of a leader differs from that of a manager. By definition, in our terms, a leader is one who has moved far beyond the bounds of his or her organization and is struggling to *take responsibility for the whole*—to use the slogan of the World Business Academy.

In order to do this kind of work, the mind of a leader must differ from that of a manager in several ways. The perspective and capacity is longer, rather than shorter; wider and more integrated, rather than narrow and siloed; deeper and more subtle, rather than shallow and un-nuanced; deeply personal, rather than impersonal; and reflexive, rather than non-reflexive. In short, becoming a leader is not just a career move; it is a profoundly personal journey that takes years and decades to grow into.

The final comment is that one is driven from merely doing in conscious ways to doing and thinking consciously and to doing, thinking and seeing consciously by the degree to which one's time and place in history are profoundly changing. The rule seems to be that a people only needs to do the work required by their times and no more. When times are essentially stable – when inherited patterns of thought and perception are not challenged – then doing and learning by doing are enough to ensure continuity. When times are profoundly unstable, when change is occurring at all three levels, then all three levels must be dealt with explicitly.

For good or ill, as we read the evidence, ours is a time of three-level change. One of the core results of Foresight Canada's research is the view that, in the 21st Century, survival requires that persons, organizations and whole cultures learn to live as Level Three persons, organizations and cultures; that a Level Two approach to a three-level world is necessarily fatal. A Level Two approach is simply too narrow, fragmented, short-sighted, shallow, un-nuanced, impersonal and non-reflexive to allow us to be able to see what needs to be seen, think it through appropriately, and act accordingly.

It is both interesting and important that the 911 Commission found the essential errors leading to 911 were not only of "capabilities, policy and management", but of "imagination". Because they did not have a formal three-level model to work with they were not able to sustain or capitalize on this insight. But at least they stumbled across the decisive importance of the shape and content of human consciousness and its logical priority over both thinking and doing.

Model 2 – Refining the Levels of Generality

The second model works with the three levels of generality introduced in Model 1 in a more refined way. The objective of both models is to generate new ways of thinking about cultural change – ways that can account for the past and present; generate useful insights into the present; and enable us to see the full range of possible futures that exist for us, for good and ill. The specific task of Model 2 is to offer a more nuanced view of this work; one that is precise enough to tease out the critical elements of human cultures.

We begin by distinguishing between nouns and verbs, i.e. between states of affairs (nouns) and actions (verbs) that are presupposed by or required to create a given state of affairs. For example, Ruben being at the COST A22 conference in Athens in July 2007 was a desired future state of affairs in January 2007. The creation of the conference by the COST A22 group is an activity that the desired state of affairs presupposes and Ruben writing an acceptable proposal is an activity required to bring about the desired state of affairs. In other language, the nouns can be seen as snapshots of reality – a condition frozen at a particular time. Verbs are a part of a movie – actions that change snapshots of a given time and bring new conditions into being.

The second move is to refine the three levels of Model 1 into seven levels. Taken together, the result is an abstract structure of 14 logically related spaces as set out in Figure 2.

Nouns – States of Affairs	Verbs – Actions
1N	1V
2N	2V
3N	3V
4N	4V
5N	5V
6N	6V
7N	7V

Abstract of Model 2
Figure 2

The formal logic of the model runs from left to right and top to bottom – 1N to 1V, 1V to 2N, 2N to 2V, 2V to 3N, 3N to 3V, etc. The content of a space that is logically prior to another, places logical limits on the content of the spaces that follow it. However, since life as lived is actually thoroughly interpenetrating, the actual influence of the levels on one another runs both ways. Top to bottom the relationship is that of the limits of logical implication. Bottom to top the relationship is that of practical limitation.

Spaces 1N through 3V (green) are those that map onto the *Seeing* space of Model 1. The *Thinking* space (blue) overlaps *Seeing* at level 3V and runs on through 5V. The *Doing* space (brown) overlaps *Thinking* at 5V and runs on to 7V. This latter space (7V) also overlaps the *Seeing* space.

A brief sketch of the character of each of the fourteen spaces follows: (See Appendix B for a visual presentation of the content of this model.) The colour scheme that follows is consistent with that set out in Figures 1 and 2.

1N – Our Cosmic Situation: The actual origins and nature of the universe, the earth, life and humanity and their evolution to this time. Note that human beings have no impact on level 1N. For us, all of this is given. How we understand our cosmic situation and work with it (1V) is up to us, but the actual nature and origins of the universe and the place of human beings within it are outside human influence, past, present or future.

1V – Intuiting the Situation (Story) We are In: The sense we make of the cosmos. The sacred canopy (mythic story) that tells us our place in the universe, the root drama in which we find ourselves and the character and meaning of life. The story's metaphors, images, logic and assumptions – ontological, epistemic and cosmological – are particularly important. This is the space of human consciousness – its content, logic and shape. As noted, consciousness is not an epiphenomenon. Quite the reverse, a case can be made that the single most powerful driver of cultural change is human consciousness. When we change our minds in fundamental ways about reality, the world or ourselves, much else also changes. Note further that all cultures have content in this space. Every culture, sacred or secular, with any capacity to last through time for relatively long periods has a way of making ultimate sense of human life. In these terms, even denying there is any sense to humanity, is a way of making sense of our place in the universe that forms a basis for action. Further, everywhere on the planet, in every culture, profound changes are occurring in this space. It is in play world-wide. Many are in the process of changing their minds about the nature of reality, history and the role of the human in both, while others resist such change as they tighten their grip on their inherited past. The deepest disagreements in the 21st Century are and will be about this space – what is right, good and godly to believe about the story we are in and what that entails for human culture and conduct. Consider the struggle over evolution, the marriage of gay persons and the internal conflicts in all major interpretive systems, sacred and secular. All of these reveal conflicts over the content of this space which is the foundation of how we make ultimate meaning of our lives and all life. (Note that this is not a space we discuss directly with clients. Rather we get at changes in this space through the evidence for such change that can be gleaned as we undertake a thorough assessment of our situation in space 2V. However, such an assessment will only reveal changes in this space if those doing the assessment are competent participant observers of this space.)

2N – Our Present Situation in History: Where we actually are now in the evolution of the universe, the earth, life and humanity. The things that are stable and those that are disintegrating and emerging. The actual and emerging character, strategic issues and requirements of our time. Note that at any given moment, the past is fixed. For those in the present, it is a given state of affairs. However, much that is the present of a people is the result of past human actions. In this sense, history has always been a human co-creation even though, as yet, no culture encourages its people to recognize this dynamic and live as if it is true. The implication is clear: if we are co-creators of the future far into the future, then we had better learn to act as if our future hangs on acknowledging this fact, telling this story and getting good at co-creating futures that are wise, secure, prosperous, inclusive, integral, sustainable and deeply humane.

2V – Our Reading of Our Situation in History: Our sense and understanding, implicit and explicit, of the character and challenges of our time in history – its dimensions, drivers, dynamics, depths and drift; what is now required of us, our culture and all others with whom we share the planet. In stable times, a people with a shared sense of identity will also have a common sense of the content in this space. They know who and where they are, where they have come from and where they are going. For such people this space is unproblematic. Unhappily, ours is not such a time. Rather, ours is a time of growing instability, of turmoil that causes confusion in this space. Many forces are causing a reassessment of the inherited content of this space. Think of the many human liberation movements that demand that marginalized peoples – blacks, women, gays, colonized and the poor – be included in the picture of the past, present and future. Consider also the growing awareness that the earth's physical environment is not fixed and forever, but a dynamic and adaptive system that will survive long after our species is dead and gone. Also, reflect on globalization in this light. Given that all persons now alive have been born into and shaped by an essentially provincial culture, it is to be expected that the world's first generation with a global reach would have trouble making sense of history and their place in it in an inclusive and holistic way. It is no accident, then, that today many of the most profound arguments on the planet are over different readings of just where we are in history and what our situation entails for our present and future. This is the space in which culture wars are most passionately fought.

3N – Our Vision of the Future: Our sense of the very best that we and our society can co-create and become over many decades or even lifetimes, given the context we are in. The alluring future states of affairs that pulls us forward. The emergent states of affairs that truly threaten us and must be resisted and avoided. Note that 'vision' in the sense used here is not the one line slogan or tag-line that we are used to in our late modern Industrial society. Rather, it is a fulsome description of actual future state of affairs that can be brought into being by human efforts at this time, if we are willing to engage in focussed and sustained hard work and have a bit of luck. Note that the cognitive content and the emotional flavour of our vision of the future are dependent upon the cognitive content and emotional flavour of our reading of history (2V) and of our place in the cosmos (1V). It follows that competent work in this space depends on good work in these logically prior spaces. Therefore, it is always a mistake to begin our thinking of the future by articulating a vision of what we now want to become. Such work is always in and by the unconsciously inherited sense of who we are in the cosmos, what is worth living for and where we are in history. This move, while common, is what we in Foresight Canada call the *amateur's mistake*.

3V – Discerning Our Strategic Intentions, Character, Mission and Core Roles: The strategic intentions we must form and hold for the next few generations. The character we must develop and manifest in order to succeed and the principles that will guide us. The specific mission we will pursue and the core roles we will play in our lives, organizations and communities. The central question with which we must wrestle in this space is, "*What must we intend, become, be and commit to achieving, if the vision we have articulated is to be realized?*" The willingness to explore and answer this question and then actually form and be willing to *live with the intention to live the life the vision requires* is central to the success of any non-trivial culture. The fact that much of today's advertising – *indulge yourself* – is designed to undercut the formation of serious strategic, life-long intentions is worrying. This space, then, is crucial if a person, organization or culture is to live coherently. Sadly, it is often skipped over lightly or dealt with selectively. Note that any answer to this multi-dimensional question is logically dependent on the content in all of the logically prior elements. In the absence of an explicit grasp on such content, there is no basis for coherent responses. In such cases, folks simply get lost in an incoherent discussion of our possible intentions, characters, missions, principles and core roles. We note finally, that in a coherent culture all of the content that is in green – 1V to 3V – in principle can be held in common by every person, family and organization in the culture. Developing shared content at levels 1 to 3, or even 2 and 3, is a powerful way of aligning action in a whole society or complex organization. It is only as one gets to the mission and core roles – the content in blue – that each sector, institution, organization and group needs to work out its own answers to these questions.

4N – Our Long-term Goals: The society-shaping projects we must undertake in order to realize our vision and the differences they will make – the major results (outcomes and outputs) we are committed to achieving over several [3-9] years. Note that this is the first space that as a total space will have very different content for different groups. The logic is that while many groups share a common sense of our situation in history (2V), a vision of the best we can become (3N) and what it will require of us to realize the vision (3V), that as separate groups we will play very different roles in the achievement of the vision (also 3V) and that as such each group with a distinct role will need to set and pursue its own Goals (4N). Goals, of course, are a state of affairs that is to be achieved at some future time by sustained human action. However, while our vision should be multi-generational, our actions must be chunked into more manageable time frames. The way to do this is to set one or more major multi-year Goals, a state of affairs that if accomplished in the next 3 to 9 years will move us towards the realization of the vision. It is assumed that the character of the next Goal(s) we should pursue will become clear to us as we close in on the first Goal. Each Goal must be described and the differences its achievement will make must be stated. The latter will include both the hard results (outputs) and the soft results (outcomes). In stable times, it may be safe for a particular group with a clear and sound sense of its role to start its planning with this level. However, in today's conditions it is unwise to do so. Rather, the cognitive content that this space presupposes (1V to 3V) must be spelled out explicitly in order to ensure that the key players share a similar sense of the times, the possibilities and the requirements for sustained success. It is not enough to agree on the Goal alone; coherent action requires agreement on all of the cognitive content that the Goal presupposes. Unfortunately, it takes time to tease out the presuppositions of a major Goal. In our culture of "Let's get on with it" the logically prior work is often skipped in the name of acting now and the fact that we agree on the Goal.

4V – Deciding Our Core Strategies: The major approaches (management strategies) we will always utilize in order to achieve our goals. The resources, relationships, structures, policies, metrics & standards we will utilize to measure our progress. We note that each of the *verb* spaces – a space in which humans are active – require decision rules to guide our thinking and acting in that space. Typically, the decision rules that link long-term Goals with operational Objectives are called *strategies*; more specifically *management strategies*. An example of such a strategy is, "We will always work with and through others as our partners, to gain a better experience base and leverage on our investments." The other element that is stated in this space might be called a management level description of the tools and resources we will require to undertake the work of achieving the Goal. Included in such a description will be the resources, relationships, structures, policies, metrics and standards that will be involved in the work or that will guide the work.

5N – Our Operational Objectives: The immediate projects we will undertake over the next 3 – 30 months and the differences they will make – the results (outputs and outcomes) we are committed to achieve over the next 3 - 30 months. Objectives are the states of affairs that we must bring into being in the near to mid-term if our longer-term Goals are to be achieved. So establishing an Global Advisory Group of exceptional persons by next year at this time, could well be an Objective that serves to realize a long-term Goal of establishing Greece as a leader in the work of re-inventing democracy for the 21st Century. As with Goals, each Objective must be described and the differences, both hard and soft, its achievement will make must be stated.

5V – Planning Our Work: In order to achieve our objectives, who will do what, by when, with whom, using what resources, guided by what rules and with what intended results? The operational procedures, rules and regulations that will guide our work. This is the space in which detailed work plans are set out – who will do what, by when, with whom, using what resources, guided by what rules and with what intended results. Such plans are a way of ensuring both completeness and coherence in what is actually done. We note that organizations that have not done adequate work at the upper levels of our chart often attempt to overcome such deficiencies by adding rules at this level. Their illusion is that work can be perfectly described for humans as it is for machines. However, humans are not machines. Treating them as machines does not improved our efficiency; it actually gets in the way of getting the work done effectively. Remember Model 1 – relevance trumps effectiveness, and effectiveness trumps efficiency. The fact this is little understood in our society is a clue

that most of our leaders see, think and act at best as managers and most of our managers see, think and act as operators. The push to create and hold to three year Business Plans – one of the current fetishes of our governments – simply reinforces this downward pressure. This is sad and ironic, as turmoil in the upper spaces requires that we grow up.

6N – Our Actual Operations: The people, resources, structures, time, technologies and partners we will use to do the work. This is the space in which we take inventory of our actual operational capacity. The questions to be answered include: What people do we now have access to and might we gain access to? What are and can be their skill levels? What resources can and might we command or borrow? How much time do and might we have? What technologies do and might we have access to? To what extent do and might our partners supplement any or all of these? Moving from top to bottom, we set the developmental agenda for our organization. Moving from today's realities to operational planning, we set practical limitations on our capacity to act today.

6V – Doing Our Actual Work: The visible activity in which we engage, guided by all of the above, plus our operational procedures, rules and regulations. This is the space in which we actually do physical work. It is the first space we have described in which this is the case. Up to this space, all of the work in the other spaces has been wholly in our minds and consciousness. In this space, work is observable phenomena.

7N – Our Actual Emerging Future: The world we are actually co-creating and what we are actually becoming – for good and ill. This space describes the results of all of the above work – the lives and world we are actually creating by undertaking the work. This is space that most cultures seldom venture into, for it is embarrassing to face and learn about the actual outcomes of our labours. Typically, we hide behind our good intentions when we are confronted by a brave voice that points out to us just what it is that we have actually accomplished. The inability of George Bush, Jr. and his friends to see and come to terms with their conduct over the last six and a half years is but a more public and glaring example of this dimension of our lives. The fact is that few persons, families, organizations or whole jurisdictions are brave enough to venture into this space with steely eyes and enough integrity to see themselves for what they have become and are doing. *"They know not what they do,"* is a word that applies to all of us.

7V – Living With What We Have Done: Seeing, exploring, coming to terms with, owning and learning from whatever it is we have actually done and are creating. Governing ourselves accordingly. If the previous space is a space primarily of embarrassment, this last space can be a space of grace – a space of learning to see ourselves, our colleagues and our world more fully, to think about all that we see more deeply and to act in this light with greater integrity. As is often said, "Life is a journey and it is the character of the journey, not the point of arrival that marks us most deeply as human." This space, then, links with the first space in which we as humans act – 1V, in which we tell of our place and importance in the universe and at root what kind of experience it is to be human.

Using Model 2: We are now in a position to use Model 2 of human consciousness and culture to shed light on some of today's realities, present and emerging. These examples are only examples. They are offered in order to make the model real and show its capacity to generate insight at levels that penetrate beneath the surface of our daily lives. It has been our experience that there is no aspect of human life that cannot be illuminated as it is run through the model. Given that our interest is in foresight, it is important to note that this model has also allowed us to identify potential and emerging issues long before they were seen, much less acknowledged by our culture. Unlike Panasonic, it allows us to be more than slightly ahead of our time.

We have noted that a coherent culture will convey consistent messages from every level of the model; that there will be a line of sight from its daily living, through its structures, strategies, goals, character, vision and sense of this moment of history to its ontological and epistemological assumptions. And we know that today every culture is being buffeted by change at every level. We also know that no society has, as yet, developed the capacity to work competently and consistently at the foundational levels of culture in ways that illuminate

and re-frame the policy issues with which they wrestle. This challenge is what we in Foresight Canada characterize as the new cognitive work of Leadership.

In short, Model 2 sparks a host of observations and questions. For example:

- Is the “global epidemic of mental illness” that WHO speaks of a logical and, if we had the eyes to see it, expected outcome of the phenomena of globalization? How much worse can it get? Will a significant number of whole societies become dysfunctional? How long will it take for us to understand that this is a major threat to our security, but a threat that military action cannot understand, much less address?
- Just how dangerous is it to a truly humane future that there is not a security establishment in the world that can reflexively see data at all of the seven levels and then re-think human security in this light? Will our fear-driven passion for security be the death of us?
- What kind of agreements – at what levels, with what content – do we need to create a truly multicultural society? Can today’s strategy of agreement on *shared values* really deal with deep divisions regarding the cognitive content of the cosmic stories by which we make our lives meaningful? Is the further separation and privatization of this level from our common daily lives really a sound strategy or only an inherited response pattern of Western Industrial culture? How can we move to a truly integral sense of living together without returning to the hegemony of a closed cosmic system.
- In the face of incontrovertible evidence to the contrary, how much longer can we keep up the pretence that “*technology is just a tool,*” that “*persons in other cultures can keep their own culture untouched by Western Industrial habits of heart and mind while they install and utilize Western technologies?*” and that “*globalization is not Westernization?*”
- How important is it that we know how to nurture healthy growth (development) in human persons, but have no inkling how to do so with whole cultures, much less have the capacity to do so? Should the co-creation of the conditions that are required to develop persons, communities and organizations that are capable of a conscious and reflexive three level response to three level changes in the world become a priority of governments that claim to care about the future?

Model 3 – Exploring Human Evolution

However, it is not enough to be able to generate insight into today’s issues; we need to be able to make reliable sense of the journey of Homo sapiens over the last 200,000 years. Ultimately, we need a new science that focuses on the long-term change, evolution and transformation of human consciousness and culture. If the three models can help us do this, then they add weight to their utility.

Some of the data such a model would have to be able to account for or at least be consistent with are the following:

- As a species we are relatively young – 200,000 years. We are the descendants of hominids that came out of the trees in Africa some 6 to 8 million years ago. If Jane Goodall is to be believed, our ancestors had a consciousness roughly equivalent to very young children about two to four years old.
- Human consciousness and thought processes are not static capacities; rather, both have developed over time. Singing predates speech. The latter is relatively recent, possibly developed only in the last 70,000 years. Writing is very recent.
- 70,000 years ago Homo sapiens were all in Africa and we were all black. About that time some of us began to leave Africa via the Middle East. The initial migrations were SE along the Arabian, Indian and Indonesian coasts to Australia. Within 50,000 years we have occupied every continent except Antarctica.

- Changes in skin colour are an adaptation that allows women who live further from the equator, large bodies of water and higher up to have healthy children. Skin colour has no causal correlation with ethnicity. Therefore, 'race' is an ill-founded and incoherent concept and should be abandoned.
- For 95% of our time as a species we all lived in nomadic tribal groupings. If we have a default way of living, this is it. Given culture as a human requirement and the small number of persons during this time – never more than a very few million world-wide – the development of separate ethnic identities based on unique languages, cultural patterns and mythologies is to be expected. No culture of this type developed writing.
- Living in settlements based on agriculture, rather than herding and horticulture arose only 10,000 years ago. This was the first big deviation from what had been the norm. Over a few thousand years, living in small settlements developed into ways of living that fundamentally broke with the old ways. Almost everything changed: from housing to social structures to technology to mythology. In time, one of the gifts was writing. A new way of *doing the human* had been invented – small "nations" that could command a small regional area. Today we would call them war lords. At the time, there may have been 8 million people on the planet so there was enough space for both ways of living – nomadic and settled – to co-exist. The new way was an option, not a requirement.
- Within 4,000 years of the first settlements the scale of settlement began to grow in a few places. The foundations were being laid for the emergence of large empires. The difference in scale resulted in a second shift in the structure and assumptions of human cultures. A third way of *doing the human* was created. It, too, was an option, not a necessity as there was still a good deal of space for all. By the time of the Common Era there were two to three hundred million persons on the planet.
- Over the last 1000 years, in Europe, a fourth way of *doing the human* emerged into what we now know as Industrial Western cultures. While what we call the Industrial Age did not get underway until the 18th Century, the forms of thought and patterns of consciousness on which it rested were being incubated over the previous several hundred years. This can be seen in the evolution of European art, architecture and theology/philosophy over the last 1,000 years. Key markers along the way include the thought patterns of Thomas Aquinas, the printing press, the Reformation, the rise of empirical science, the romantic reaction to it, and the emergence of reflexive thought in embryonic forms and emergence of democracy and the individual. By 1900 there were 1.6 billion of us. However, even with Imperial powers, most people who lived in tribal ways or in small settlements could still exist in ways that differed little from the ways they had always lived.
- There is too much that could be said about the 20th Century, so I will take it as read. I will only note the following: the domination of Newtonian ways of seeing, thinking about and acting in the world; the development of a reflexive and contextual way of seeing and thinking that gave us biblical scholarship; the emergence of the sociology of knowledge, ecology, post-Newtonian science and post Modernism; the development of globalization as both a phenomenon and a commercial project; the emergence of fundamentalism and culture wars. Now there are more than 6.5 billion of us. What is more, we know where we all live. Today, there is no place to hide.

The Foresight Canada model – Model 3 – that can account for and illuminate this journey uses the two most formative insights of any culture – its ontological and epistemological assumptions. The former captures the unconscious and tacit sense of the nature of reality, while the latter crystallizes the relationship of the human to reality in the processes involved in knowing it.

The fundamental choice regarding ontological assumptions is that *reality* is either:

- (a) static, unchanging and therefore timeless, or
- (b) dynamic, changing and involved with time.

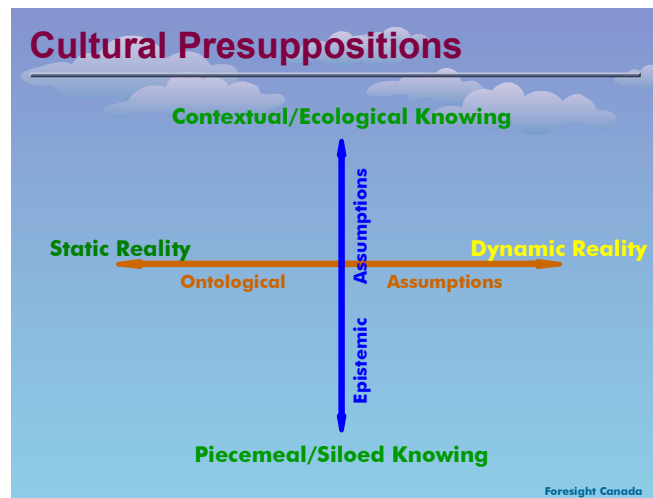
In the former case, things that are true will be true forever – the same of all men and women everywhere and everywhen. Truth is quite independently from any given point in or experience of history. In the latter case, things that are true will only be true at a given point in time and space, but not for always, everywhere. The “point in time” may be a nano-second or an eon, but time and truth are bound together.

The fundamental choice regarding epistemological assumptions is that *knowing* is either:

- (a) a process in which a separate individual can engage successfully, quite apart from all others; and a process by which an isolated bit of reality that is separate and complete in itself may be known by itself, or
- (b) a process in which only groups of like-minded persons can engage successfully as a community; and a process by which a part of reality can only be known if its context and relationships are also known.

In the former case, knowledge is a private product about some isolated piece of reality. In the latter, knowledge is always a community artefact that necessarily includes knowledge of the context and relationships of the object of knowledge.

If we use these two alternatives as the X and Y axes of a 2 X 2 matrix, we get four possible ways of seeing, thinking and sensing reality, i.e. four ways of construing human experience, constructing the world and living in it. See Figure 3.



Possible Cultural Presuppositions
Figure 3

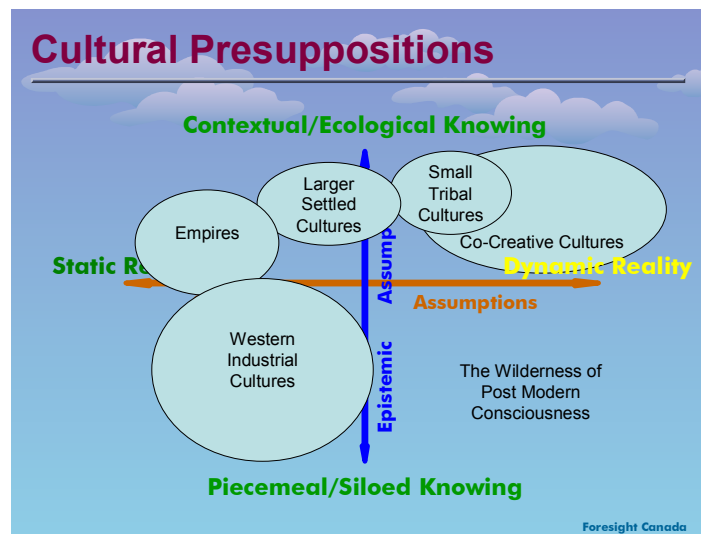
Using Model 3: For thirty years, we have been giving small groups in workshop settings no more information than is set out in the explanation of Figure 3 found in this paper. We have asked them to flesh out the key features of a human society that is required in each space. We ask them a long list of questions that include such questions as: "How would learning occur?" "How would it be certified?" "Who would have authority?" "What role would spirituality, wealth creation, and human well-being be understood and acted upon?" "What tensions would exist?" "What ideas are required and which are unthinkable?" We also ask them to think through what differences, if any, the scale of the society would make.

Participants find – somewhat to their surprise – that in three of the four spaces they can in fact flesh out a coherent consciousness and culture based on the two presuppositions they have been assigned. Further, the experience gives them a deeper appreciation for the character and depth of a culture than that which is usually found in modern Western Industrial cultures. They also find that the only space in which it is possible to flesh out a form of consciousness, but not establish an ongoing culture, is the bottom right.

Participants also find that it is possible to string together the consciousness and cultures that emerge from this exercise as a coherent developmental story of the human journey. They also

discover, again to their surprise, that only one developmental pattern is possible. They also find that the model allows them to predict and understand the types of clashes that will and will not arise when folks whose consciousness is formed in one space meet, judge and act towards folks in another space. That is, the model enables them to take a meta-view of human evolution, including that of the culture into which they were born and by which they were formed. The various forms of consciousness and culture that emerge, of course, are ideal types. It is to be expected that actual human consciousness and cultures will not be as tidy.

The human journey that the model predicts is set out in Figure 4. For the sake of brevity, we will only sketch the journey suggested by Model 3. You will note an absence of references to cultures other than those we in the West have known in our journey. The reason is that the models were developed in response to the need to make sense of the emergence, decline and transformation of Western Industrial Civilization. While I have more than a passing familiarity with non-Western cultures, I shall leave it to others to determine whether or not their history and possible futures map on to Model 3.



The Human Journey Suggested by the Models

Figure 4

- Human consciousness and culture emerged in the Top Right space. We live in a world that is itself alive and often surprising and capricious, one that we cannot control, but can learn, respect and align with it. If we do so, then we and our children shall live. Ultimately, we are in the hands of the gods. They will do with us what they will. (Interestingly, the actual consciousness and cultures of nomadic tribal peoples maps on to this space. As we have seen this is remarkably stable space. A culture can survive in it for tens of thousands of years.)
- Attention to the regularities of nature and, later, the requirements of settlement moved some of us to gravitate to the Top Left space. We live in an integral world that while alive is regular in its patterns. By our descriptive science we can learn the patterns of life and even use them to increase our power to resist our fate. But we must not challenge or attempt to alter the root patterns of reality itself. They are what they are and beyond our control. (Again, by the time one gets to ancient empires in the West – Egyptian, Greek and Roman – one finds consciousness and cultures shaped by the presuppositions of this space. As we have seen this too is a reasonably stable space. A culture can survive in it for thousands of years.)
- Learning to see, think about and act towards each part of life, including ourselves, as separate and individual things in themselves moves some of us from Top Left to Bottom Left. The story is one of slowly and steadily increasing our control over more and more aspects of life, taking our lives from the hands of the gods, and living as sovereign individuals voluntarily with others in communities. An empirical stance and science is

required, one that privileges hard data over soft, the obvious over the subtle. Empirical science can wrestle the unchanging truth from the universe. With it, clear rules can be written for every dimension of life. A secular attitude with the privatization of consciousness and life understood as a production/consumption function are both logical developments in this space. (By the time Thomas Aquinas was legitimizing the separation of God from the earth, we were well on this path. The emergence of Industrial consciousness and culture and the Romantic reaction to it should not surprise us. As we are beginning to realize, this is an inherently unstable space. No culture can survive essentially unchanged for even a thousand years.)

- Learning to pay careful empirical attention to data and being willing to follow it wherever it takes us, even if it is off the edge of our own mental maps, is the major driver that moves some of us from Bottom Left to Bottom Right. The story is that reality is fluid and constantly changing and, therefore, there is nothing necessary about human consciousness or cultures; all are human constructs. The implication is clear – we have far more degrees of freedom in history than we know. If cultures are human constructs, then we had better acknowledge this fact and develop the capacities and infrastructures necessary to allow us to openly take on this responsibility. (However, this is the space of post-modern consciousness; while all that has gone before can be deconstructed in it, this space cannot provide a stable basis for a shared and on-going society. It is no accident that none has emerged. However, this space has a huge utility – it is a kind of wilderness experience that allows those who travel through it to loosen the power of the presuppositions they have inherited on their lives.)
- Empirical science has not only driven some of us to a dynamic sense of reality; it is revealing an ecological reality – the Top Right space. The story is that after a journey of ten thousand years some are returning home, but with a consciousness that sees it anew and allows us to become what we are – co-creators of our lives, families, organizations and whole cultures. Here what is taken as knowledge is no longer marked by certainty; rather, knowledge can only ever have the status of being reliable enough to bet our lives on. Here social realities are social constructions, and learning to construct them openly and responsibly is at the heart of living. Here, given these skills, no specific culture is on-going, but the human cultural project can be sustained for tens of thousands of years. This is the only truly sustainable space for the human enterprise. (The model acknowledges the openness of the future while directing our attention to those features of our past, present and future to which we must pay attention, if the human enterprise is to kept as an open journey.)

So we have arrived where we began, with the *project* that overrides all others for human beings – **keeping open for future generations the possibility of a reasonably prosperous, secure and graceful human future.** The difference is that we now have a path that promises to enable us to engage in this project with a grounded hope that it can be accomplished, if we will but walk it with humility, courage, wisdom and a deep love for both the journey itself and all those who travel it with us.

Appendix A

	<u>Comparing The Three Levels</u>	<u>At Which We Must Now Work</u>	<u>In the 21st Century</u>
The Level	<u>ADMINISTRATION</u>	<u>MANAGEMENT</u>	<u>LEADERSHIP</u>
The Work	DOING physical things in one's own life, family or organization	THINKING hard about doing things in one's own life, family or organization	SENSING/"GETTING" the changing global historic context in which one lives
The Focus	Operations, Tactics, Logistics, Work Plans	One's Own Mission, Goals, Policies, Objectives	One's Historic Situation, Strategic Vision/Intentions of What We can Become, Strategic Directions
Success Measured By	Efficiency: Ratio of Results Achieved to Resources/Energy Expended	Effectiveness: Degree One's Goals are Actually Achieved by One's Activities	Relevance: Degree of Fit between One's Situation and One's Intentions/Directions
Edge of One's Concern	Operational Planning	Strategic Planning	Strategic Foresight
When Systematized	1900 - 1950s	1950s - 1990s	1990s - 2030?
How Widespread Now?	Virtually universal among the educated	Becoming common among the educated	Spotty, early networks now emerging
Support Systems	Elaborate: social acceptance, laws, regulations, books, courses, degrees, associations, research, degrees, websites	Elaborate: social acceptance, laws, regulations, books, courses, degrees, associations, research, degrees, websites	Scattered: limited social acceptance, early efforts to create support systems – books, websites, conferences, training, institutions.

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**Comparing the Three Levels at which We must Work in the 21st Century
Appendix A**

STATES OF AFFAIRS – NOUNS

ACTIONS –VERBS

<p>Our Cosmic Situation: The actual origins and nature of the universe, the earth, life and humanity and their evolution to this time.</p>	<p><i>Intuiting the Story We are In:</i> The sense we make of the cosmos. The sacred canopy (mythic story) by which we tell of our place in the universe, the root drama in which we find ourselves and the character and meaning of life. The story’s metaphors, images, logic and assumptions – ontological, epistemic and cosmological – are particularly important.</p>
<p>Our Situation in History: Where we actually are now in the evolution of the universe, the earth, life and humanity. The things that are stable and those that are disintegrating and emerging. The actual and emerging character, strategic issues and requirements of our time.</p>	<p><i>Reading Our Historical Situation</i> Our sense and understanding, implicit and explicit, of the character and challenges of our time in history – its dimensions, drivers, dynamics, depths and drift; what is now required of us, our culture and all others with whom we share the planet.</p>
<p>Our Vision of The Future: Our sense of the very best that we and our society can co-create and become over many decades or even lifetimes. The alluring future state of affairs that pulls us forward. The evil states of affairs that threaten us and must be resisted and avoided.</p>	<p><i>Discerning Our Strategic Intentions, Character, Mission & Core Roles:</i> The strategic intentions we must form and hold for the next few generations. The character we must develop and manifest in order to succeed and the principles that will guide us. The specific mission we will pursue and the core roles we will play in our lives, organizations and communities.</p>
<p>Our Major Long-term Goals: The society-shaping projects we must undertake in order to realize our vision and the differences they will make – the major results (outcomes and outputs) we are committed to achieving over several [3-9] years.</p>	<p><i>Deciding Our Core Strategies:</i> The major approaches (management strategies) we will always utilize in order to achieve our goals. The resources, relationships, structures, policies, metrics & standards we will utilize to measure our progress.</p>
<p>Our Operational Objectives: The immediate projects we will undertake over the next 3 – 30 months and the differences they will make – the results (outputs and outcomes) we are committed to achieve over the next 3 - 30 months.</p>	<p><i>Planning Our Work:</i> In order to achieve our objectives, who will do what, by when, with whom, using what resources & with what intended results? The operational procedures, rules and regulations that will guide our work.</p>
<p>Our Operations: The people, resources, structures, time, technologies and partners we will use to do the work.</p>	<p><i>Doing Our Actual Work:</i> The visible activity in which we engage, guided by all of the above, plus our operational procedures, rules and regulations.</p>
<p>Our Actual Emerging Future: The world we are actually co-creating and what we are actually becoming – for good and ill.</p>	<p><i>Living With What We Have Done:</i> Seeing, exploring, coming to terms with, owning and learning from whatever it is we have actually done and are creating. Governing ourselves accordingly.</p>

**A Model of the Levels of Depth of Human Cultures and Consciousness
 Appendix B**

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