Creating a Knowledge Society:
The Building Blocks of a New Transcendent Humanity

by

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(*Abstract*)

The knowledge society built by human effort from ancient times to the postmodern age is dominated today by a science of objective reality and a culture of material consumption. The magnitude of this enterprise and its destructive impact on the ecosphere is leading to grave concerns about severe ecological disruption and consequent civilizational collapse. This implies the need for a shift in human consciousness at the global level. The seeds of this change are present in the current knowledge society, but they have to be nurtured by deliberate intent that brings a transformation in the sphere of the spirit. A transdisciplinary consideration of future action suggests a leadership role for UNESCO in general and the Canadian Commission for UNESCO in particular.

INTRODUCTION

The story of knowledge is the story of humanity. From ancient times to the postmodern age, across cultural borders and ethnic traditions, between traditional and technologically developed societies, the common currency is knowledge. To investigate, create, modify and change is endemic to human nature. Knowledge of all kinds floods into every crevice of our planet where *Homo sapiens*, the wise ones, have established a presence. The question for us today is not so much how to build a knowledge society, but how to combine the systems of knowledge we now have into a recipe that can intellectually nourish the human family towards a sustainable future.

The major challenge facing us is to create a global knowledge society that can sustain, in a reasonable quality of life, a world population estimated to reach nine billion people by 2050. In 2004, the prospects that we will be able to achieve this goal do not look good. Already we are unable to sustain a global population of six billion people so that most enjoy a decent standard of living, and, moreover, we are running into natural limits for what we *are* doing and for the *way* we are doing it.

The main reason for concern has much less to do with the creation of knowledge—humanity is very good at that—but rather with our unwillingness and seeming inability to take responsibility for how we apply knowledge.

The Human Dilemma

Our human dilemma has been described in some detail by Vaclav Havel, former President of the Czech Republic, who has emerged over the past decade as a respected, thoughtful and articulate commentator on the human condition. Speaking in 1997 at Forum 2000 to thirteen scholars from various disciplines, he said he hoped their deliberations would shed some light on what he finds to be a very troubling reality, namely, that humankind shows little determination to avert the threats about which it knows so much. By threats, he was referring to a litany, which I expect everyone in this room knows well: how to feed a world population with a still soaring growth rate; the difficulty of various nationalities and cultures to coexist crowded so dramatically together; the contribution of human activities to global warming, to the destruction of the environment and to disturbing the balance of ecosystems; the continuing proliferation of nuclear weapons; the current and expected future rise of social problems, crime, drug abuse, terrorism and other forms of human alienation and frustration.

Vaclav Havel went on to comment that we do not seem to be perturbed by the evidence that the resources of this planet are limited and that demand is beginning to exhaust supply. On the contrary, rising production, and therefore also consumption, is sensed as the main sign of success by both poor and wealthy states, thereby "cutting the branch on which they are sitting by their ideology of stupidly indefinite and senseless growth."

That we have come to this place as we build the knowledge society ought to give us pause to wonder if perhaps we are doing something wrong.

Mr. Havel expressed his deep conviction that the only option for controlling what he called our "perpetual motion towards disaster" is for something to change in "the sphere of the spirit, in the sphere of human conscience, in the actual attitude of man towards the world and his understanding of himself and his place in the overall order of existence;" in other words, "to understand differently and more perfectly the true purpose of our existence."(1)

So that is what I suggest our round-table discussion on the challenges in creating the knowledge society should focus on—the question of purpose.

Organization of the Paper

To provide some structure for the discussion, I would like to outline my understanding of how humankind came to be where we are today, then suggest some foundational supports we should be working very hard at putting in place so that the knowledge society we are building does not collapse under its own weight. Finally, I will discuss an appropriate role for UNESCO in general and for the Canadian Commission in particular in leading the development of a sustainable knowledge society.

Transdisciplinary Approach

In keeping with the transdisciplinarity theme of our meeting, I will be aided in my presentation by scholars from various disciplines. My objective is to fuse their knowledge into a new whole, which hopefully will be helpful in addressing the problem raised by Mr. Havel of humanity's lack of accountability to the world and responsibility for it.

I should say, at the outset, that my understanding of transdisciplinarity is that it is a process whereby multiple disciplines integrate their knowledge in addressing a complex issue such that some new intellectual space is created and some emergent knowledge is generated, which could not possibly have come from single disciplines working alone. While we have very little time at our disposal today to hope to generate new knowledge about a problem as serious for humanity as the one I have raised, I would hope that we might at least come away from this encounter somewhat humbled by our limited individual knowledge, and encouraged by our collective will to shed whatever light we can into the dark spaces of current human failure.

Conflict between the Knowledge Society and Sustainability

It is significant that the organizers of today's program placed the topic of a knowledge society under the theme of building bridges toward a sustainable future, for clearly the knowledge society we have built into the first decade of the 21st century is in conflict with sustainability. Therefore, if we are going to hold those two ideas, "knowledge society" and "sustainability" together in our minds we must begin to think about a very different kind of knowledge society than the one we have invented. We are not concerned here with a tinkering at the edges; we are faced with a profound rethinking of a dominant paradigm.

I am reminded here of the words of Rita MacNeil's song about the miners in Cape Breton. They know that continuing to go down into the mines will be the death of them, but they have great difficulty in thinking about an alternative. They are struggling to hold a radically different idea in their minds when they sing: "If I can only hold it in my mind, I will never again go down into the mines." We are facing a similar existential challenge. We are struggling to hold it in our minds that we don't need the wasteful, consumptive, and grossly inequitable society built by the way we are using knowledge, while we try to replace it with one that truly acknowledges our intimate connection to the natural world and our absolute interdependence across all boundaries of nationality and ethnicity as stewards of the Earth and custodians of the future.

Why is it so difficult for us to do this? The answer lies, at least in part, in the cultural myth that underlies the knowledge society. This creates the assumptions and flawed policies that push us into continuous crisis.

FLAWS OF THE KNOWLEDGE SOCIETY

Every new generation is born into a system of beliefs and knowledge on which it continues to build. Over time this coalesces into substantial change and current generations tend to look back dismissively to the knowledge systems of previous ages, not realizing the extent to which their own knowledge base is built at best on tenuous assumptions and at worst on flawed beliefs and outmoded cultural myths. The techno-industrial knowledge society of the 21st century suffers from many such flaws.

The Myth of Sustainability through Growth

Possibly the most serious illusion of our age is that we can achieve sustainability through growth. A forceful critic of this modern myth is William Rees, Professor of Community and Regional Planning at the University of British Columbia. "For the first time", he says, "the world seems to be converging on a common developmental ideology, one that promises ever-increasing wealth for everyone, everywhere."(2) This is the global vision that everyone can prosper through unlimited economic expansion fuelled by open markets and more liberalized trade. A key assumption is that continuously improving technology will be able to compensate for the depletion of any important natural resources. However, evidence of every kind is now showing that as national economies expand, the ecosphere degrades. Regrettably, overall human welfare does not seem to improve either, for the benefits of economic growth accrue mainly to the already wealthy. Moreover, it is the world's poor who suffer the most when ecosystems are degraded, while, ironically, the world's rich don't enjoy much measurable improvement from income growth, for "beyond a certain income level there is little indication of improvement in subjective assessments of well-being."(3)

Thus, we have a built-in economic imperative in our knowledge society to consume more and more of the Earth's resources for no great advantage. The only way that the world's wealthiest nations can live the way they do is by drawing on the ecological surpluses of other nations. As resources become scarcer, the process becomes geopolitically destabilizing. Mixed with ethnic, racial and religious tensions, and faced with the continuing reality of growth in world population, particularly in the poorer countries, it should be obvious that we are heading towards a future none of us would willingly choose to live in.

Higher Education is Part of the Problem

Regrettably, the flaws of the knowledge society described above are embedded in our systems of higher education. William Rees describes the situation succinctly: "Universities and colleges have been swept along all too passively by the winds of corporate globalization. The knowledge society is no longer a public good."(4) In Science and Engineering faculties, students learn that the world is a mechanistic place. Business and Commerce teach to maximize shareholder value. "The bulk of research goes to disciplines that create marketable intellectual property of every kind." The Humanities wither by comparison, and students are traumatized by the material culture in which they are embedded. "No one should be surprised that the result is the widespread erosion of community, the moral corruption of commerce, and the wholesale degradation of ecosystems, now on a global scale."(5)

A strong indictment indeed! Yet, a different kind of knowledge society can be created, which we shall come to shortly, but first we must understand some other problems and challenges.

Dancing with Systems

The mindset of our techno-industrial age is that somehow we can predict and control the natural world. An impassioned and eloquent voice expressing a contrarian view came from Donella Meadows, until her life was tragically cut short by illness a few years ago. Meadows was a college professor and systems analyst, and at the time of her death, was working on a book called *Thinking in Systems*. The book is to be published posthumously by the Sustainability Institute. Excerpts were published in the March/April 2004 issue of *Timeline* by The Foundation for Global Community.

Meadows warns us that "self-organizing non-linear feedback systems are inherently unpredictable. They are not controllable."(6) This speaks to another serious flaw in the knowledge society—a belief that we can approach the natural world, not as a participant, but as an omniscient conqueror. Obsessed with numbers, we feel that we can somehow manage the future. We focus on measuring and manipulating parts of the system, forgetting that the parts cannot survive without a healthy whole.

This belief has led us into the reductionist, discipline-centred knowledge system that is now getting us into so much trouble. Meadows reminds us that the mental models we carry around in our heads are just that—models of reality, which we must be prepared to challenge continuously. Her advice is that we must dance with the systems we find in the world, follow them across traditional disciplinary lines, as we

are doing today, and expand the horizons of what we care about, recognizing that "no part of the human race is separate, either from other human beings or from the global ecosystem."(7)

But how did we get into the trap of reductionist thinking in the first place? To understand this we must turn to the history of science.

The Science Story

The ground rules for science were set in the 17th century by René Descartes, who distinguished between two orders of reality. On the one hand, there is mind or consciousness, and on the other, matter. Of these two, mind is sentient (that is, it can feel), while matter is non-sentient, or dumb. Because mind is non-material, Descartes said it was outside the realm of scientific enquiry. This set in place a preoccupation for mainstream science with the study of matter, considered to be non-sentient and purposeless. Mind, or consciousness, was left to theology and metaphysics (and more recently, psychology), and was not considered by science to be relevant to understanding reality. This dualism between mind and matter has contributed significantly to the mechanistic, manipulative mindset that underlies the knowledge-based society of today.

Penetrating analyses of the implications of this material bias in science have appeared in two recent books by two authors coming from significantly different backgrounds. Frank Parkinson describes himself as an "unapologetic generalist". His book, *Jehovah and Hyperspace,* explores the interface where science, philosophy and theology meet. Christian de Quincey is a philosopher and professor of consciousness studies at John F. Kennedy University. His book, *Radical Nature: Rediscovering the Soul of Matter* puts forward the thesis that the whole universe, animate and inanimate, is full of consciousness, from the smallest particle to the highest form of human consciousness.

De Quincey is gravely concerned that the Western industrial doctrine of materialism is leading to "inevitable ecological and civilizational collapse."(8) He is critical of both science and religion as failing to provide humanity with a worldview that can sustain us into the future. Science is at fault for it has failed to give us an understanding of the most mysterious phenomenon in the universe—consciousness. Religion is at fault, for it imbues consciousness with an added quality called "soul," and focuses attention away from understanding how to live in the natural world to notions of how to transcend the corruptions of the flesh and prepare ourselves for a world beyond this one. The consequence is an already huge and

still growing population fixated on ideas of consumption and manipulation of nature for human gratification.

Parkinson is more hopeful than de Quincey that science and religion can come together to give us a new sustaining worldview. He describes the three revelations of science in the last 150 years that give modern humans not only a different way of looking at the world than anyone whose life ended before the 1930s, but also provide the framework for a new understanding of our spiritual and cosmic origins. The three revelations are Charles Darwin's Theory of Evolution, Max Planck's Theory of the Quantum, and Edwin Hubble's Theory of an Expanding Universe, leading to the conclusion that the universe originated in a singularity called the "Big Bang" some 12-14 billion years ago.(9)

In their criticisms of science and spirituality, de Quincey and Parkinson point the way for a reformation of the knowledge-based society towards a more hopeful future than the one promised by our present knowledge society. We will turn to that in a moment, but first we need to consider the nature of knowledge itself and why it holds such powerful implications for the future.

The Ecology of Knowledge

Over many years, Jerzy Wojciechowski, Professor Emeritus of Philosophy at the University of Ottawa, has developed a theory of knowledge, which he calls the "ecology of knowledge." The choice of the term "ecology" to name this theory is instructive, for ecology is essentially a science of relationships. Modern humans not only live in a set of relationships with the natural world, which we had no part in creating, but we also live in a set of relationships with the knowledge we have let loose in the world as an entity in its own right, with an existence of its own and distinct from the knowers who have produced it.

Professor Wojciechowski rightly points out that by and large the accumulation of knowledge in the world is "the logical result of centuries or even millennia of rational, tenacious, well-intentioned efforts of generations of humans labouring, striving to progress so as to liberate themselves from misery, ignorance, fear and subordination to uncontrollable forces. The aim of this striving has been, and still is, the creation of a more satisfactory, more human condition."(10)

That being said, however, the consequence of our pursuit and application of knowledge, is that we have become an increasingly powerful means and, at the same time, a growing obstacle to our further development. We have to think about ourselves in terms of the whole species and confront the issue of

the survival of the species. "It now becomes evident that, in order to survive, humans have to know and understand themselves more and more and much better than ever before."(11)

Where we are in difficulty, in facing up to this challenge is that modern knowledge, which developed over more than three centuries since Descartes, "is quantitative, factual cognition, which tells us much about how the world is, but little about how we should behave. It is not synonymous with moral progress."(12) Science did not make us morally better, but gave us greater power to do things and thereby to increase our capacity to harm ourselves.

Review

So there we have it: an industrial world awash with knowledge, primarily focused on controlling and manipulating the environment for human advantage; a privileged small proportion of the world's population applying this knowledge to consume the Earth's resources with virtually unrestrained abandon; a few powerful governments and corporations controlling the flow of commerce through a policy of globalization based on continuous growth; a prodigiously powerful assortment of weapons of mass destruction in a number of countries primed and ready for use if their leaders decide to do so; a flood of electronic information carrying the philosophy of growth and consumption to another less industrialized world where the people look enviously at the lifestyles of their more fortunate world citizens and know they can never live like that; another portion of the world's population too poor, sick and malnourished to know anything about what is going on, elsewhere on the planet; a physical environment substantially degraded from its former health; and a mélange of spiritual belief systems rooted in a myth-based past largely irrelevant to the materially minded citizens of the industrialized countries in the 21st century.

That is the darker side of the legacy of the knowledge society to date. Fortunately, there is another brighter side, to which we can turn for inspiration and hope. Let us do so now as we seek to find direction to build bridges to a sustainable future.

FOUNDATIONAL SUPPORTS FOR A MORE ENLIGHTENED KNOWLEDGE SOCIETY

The spectre now facing humanity is the extinction rather than the enrichment of life. Therefore, the starting point for reconceptualizing the knowledge society is to identify life-supporting principles for human behaviour. These are now available to us from the science of ecology. One part of our task is to make human beings ecoliterate.

Living in Accordance with Ecological Principles

One of the foremost spokesmen for articulating ecological principles is Fritjof Capra, Director of the Center for Ecoliteracy in Berkeley, California. Speaking in 1998 in Prague at a conference of scholars addressing the issue of purposefulness in nature, Capra began with a fundamental question: "How do we need to behave as members of the Earth Household? Well, we need to behave like the other members of the household who, as we have seen, sustain, and even enrich and diversify, the pattern of relationships in the web of life. This is what is meant by ecological sustainability. What needs to be sustained is not competitive advantage, corporate profits, or economic growth. What need to be sustained are the patterns of relationships in the web of life."(13)

Capra went on to outline the basic principles of organization of ecosystems, which should be the model for human organization:

- An ecosystem generates no waste; one species' waste is another species' food.
- Matter cycles continually through the web of life.
- The energy driving these ecological cycles flows from the sun.
- Diversity assures resilience.
- Life from its beginning progressed by cooperation, partnership and networking.

Capra concluded his remarks with this advice and warning: "The survival of humanity will depend on our ability to understand the principles of ecology, and act and live accordingly. This is an enterprise that transcends all our differences of race, culture or class. The earth is our common home, and creating a sustainable world for our children and for future generations is our common task."

Creating Life-Supporting Economies

Capra asserts that the above ecosystem principles must form the basis of our future technologies, economic systems, and social institutions. "Either that or there will be no future for humanity." Rees picks up the same theme when he argues that our current world economy "exists in a quasi-parasitic relationship with the ecosphere." By maximizing consumption, injecting human waste into the environment, and drawing down non-renewable energy supplies, "the expanding human enterprise is thermodynamically positioned to consume and contaminate—to 'disorder'—the ecosphere from within."(14)

So we must change the fundamental organization of the human enterprise. But change to *what* and *how*? Part of the answer was outlined by Hawken, Lovins and Lovins in their ground-breaking 1999 book *Natural Capitalism(*15). They outline four central strategies:

- Using resources more effectively.
- Mimicking nature to reduce the wasteful throughput of materials.
- Creating an economy in which a flow of services rather than acquisition of goods is used to measure progress and affluence.
- Investing in sustaining, retaining and exchanging stocks of natural capital.

Another form of capital, Spiritual Capital, also needs to be considered. This is a concept developed by Danah Zohar. She argues that, for capitalism to have a future, it must change its focus from the single-minded accumulation of material capital and begin to accumulate "spiritual capital." She has a vision of capitalism as it could be: a values-based culture in which wealth is accumulated to generate a decent profit while businesses act to raise the common good and ensure the sustainability of their enterprises.(16)

So the strategies and principles for necessary economic change are known. But the knowledge still lies at the margins of the knowledge society. How are they to be brought to centre-stage so that the whole nature of our knowledge-based economy begins to change? Obviously, an important part of the answer is to shift our educational systems from support of the flawed knowledge society to creation of something new and different.

Embracing Life-Enhancing Education

Capra speaks of the need for a pedagogy that puts the understanding of life at its very centre so that we overcome the current alienation from the natural world and rekindle a sense of praise and awe for Creation. He also looks for systemic school reform in which the process of learning is based on what we now know of the brain as a complex, highly adaptive, self-organizing system. This means emphasizing experiential learning or project-based learning so that students use the knowledge from various subject areas to engage in complex, real-world projects like creating a school garden or building a model community. Schools would become true learning communities where everyone in the system is both a teacher and a learner.

Complementing academic and practical learning would be the learning of values such as is offered through the Living Values Program.(17) This is a UNICEF and UNESCO-sponsored initiative already being offered in over 7000 sites in 74 countries around the world. It is a non-sectarian, multicultural curriculum taught through stories, the natural way that humans learn, emphasizing the importance of living values like respect, cooperation, peace and responsibility.

Currently in Vancouver, the Institute for Ethical Leadership is working with several school jurisdictions and teacher groups to introduce this curriculum into public schools. We are also supporting the creation of a nature-based educational initiative known as the Gulf Islands Centre for Ecological Learning to introduce the model of eco-literacy envisioned by Fritjof Capra.

So the good news is that the models for change exist and efforts are under way all around the world to move them into the mainstream. In higher education, William Rees refers to initiatives where students, faculties and administrative organizations in universities across the developing world are increasingly engaged in special campus projects. He cites the example of the special Sustainability Office at the University of British Columbia and its dedicated Sustainable Development Research Centre and the Graduate School of Community and Regional Planning.

These are examples of what can be done when educators take responsibility for change in the formal educational systems. Small sparks can ignite great fires. An indication that something like that is beginning to take hold in the world can be seen in various international initiatives.

Creating New International Institutions and Forms of Governance to Support Life

As Rees points out, "Creating a socially just and ecologically sustainable global culture…will require new international institutions that can exercise a trans-national veto over certain behavioural dispositions…that are potentially fatal…(the newly established International Criminal Court is a case in point)."(18)

Rees also draws attention to the Earth Charter, another effort supported by UNESCO and other international organizations, which provides an ethical framework to govern relationships on Earth. It includes such principles as:

- Respect Earth and life in all its diversity.
- Care for the community of life with understanding, compassion and love.
- Build democratic societies that are just, participatory, sustainable and peaceful.
- Secure Earth's bounty and beauty for present and future generations.

"These principles recognize that we humans are unlikely to conserve anything for which we do not have love and respect, empathy and compassion. Indeed, it might be argued that for ecological sustainability we must come to feel in our bones that the violation of nature is a violation of self."(19). These same sentiments have been eloquently expressed elsewhere by that great champion of learning from the Book of Nature, Thomas Berry, in *The Great Work*: "The Great Work now, as we move into a new millennium, is to carry out the transition from a period of human devastation of the Earth to a period when humans would be present to the planet in a mutually beneficial manner."(20)

For such a transformation in the human psyche to occur, however, requires rediscovery of what Vaclav Havel has referred to as our "transcendental anchor" and the true purpose of our existence. This goes much deeper than economic or educational reforms. It goes to the core of our understanding of ourselves as spiritual beings and the new story we will tell ourselves of who we are and why we are here.

The New Cosmological Story

Reference was made earlier to the fact that anyone whose life was completed before the 1930s could not have the same worldview as one who lived most of his or her life in the second half of the 20thcentury. The reason is the astonishing revelations by 20thcentury science on the nature of reality. Arthur Peacocke,

physicist and theologian, puts it succinctly: “Science has revealed the deep wonders of the created world to an extent that has altered the whole horizon and context of humanity’s thinking about itself.”(21)

What is it that science has revealed? Recognizing that all scientific knowledge is a work in progress, proceeding through the development and proposing of theory, through inference to the best explanation, then by testing of the theory through experimentation to tentative acceptance or rejection of the theory—recognizing then that the story may change with new knowledge, this is what modern science says about reality.

The universe emerged as a pinpoint of stupendous energy in an event called the “Big Bang” that was the beginning of what we call time and space. Now, some 12-14 billion years later, we are aware of a vast cosmos of billions of galaxies, still expanding, while here on our tiny planet Earth we know ourselves as human beings who have evolved out of that original cosmic energy.

That is the macro world of cosmology. But we also know of another micro quantum world where matter dissolves into energy and where particles emerge from and disappear into something we call, for want of a better term, the “quantum vacuum.” We know of a mysterious quality possessed by ourselves and other creatures called consciousness. We know that our consciousness somehow inexplicably interacts with the quantum world to cause particles to appear from nowhere, to turn a probability into an actuality.

We also know, from the science of complexity and chaos theory, that nature is a highly complex, interlocking network of nested systems, such that it is impossible or difficult to predict accurately the outcome of an intervention. In such a world we cannot control nature because we are part of the system and the most we can do is participate.

On all of the above, most scientists would agree that this is the way it is. However, when we push a little deeper, uncertainties or disavowals appear. But it is into this uncertainty we must push if we are to find any satisfactory answer to Vaclav Havel’s question of the true purpose of our existence.

Christian de Quincey argues that what we should understand is that the world is not defined only by its physicality, but that consciousness plays a participatory and determining role. He suggests that consciousness is the quality in the universe that has been able to construct the whole story of the universe. Nature is full of the same mind that we know in ourselves. We are in Nature and Nature is in us.

This leads to the understanding that "Nature is sacred, inherently divine. It is full of God, full of spirit, full of consciousness...The best way to connect with the divinity of Nature is through touching and feeling the Earth and its inhabitants. The way to meaning in our lives is by reconnecting with the world of Nature—through exuberant participation or through the stillness of meditation, just by *being present* and *listening*. And when we do so, we hear, we feel, and we learn: *we are not alone— we are uniquely special.*"(22)

If we can do this, says de Quincey, then maybe we can save ourselves from the "otherwise inevitable ecological and civilizational collapse that faces us within our lifetime." In the Western tradition we have relied too heavily on rational analysis that has taken us into a cul-de-sac of believing and behaving as if everything is separate and in conflict and competition. We have built our national economies, fast becoming the global economy, on this flawed belief, now being refuted by the very science that spawned it.

In a new global civilization, we must learn together how to embrace all ways of knowing (such as exist in non-Western traditions of Taoism, Buddhism, Hinduism, and Shamanism). This is how de Quincey believes we can find our common humanity and our role as conscious participants and co-creators in the great cosmic adventure. But we can go deeper than that to the question of Ultimate Reality and the spiritual significance of our presence on Earth.

A New Spirituality

Both Arthur Peacocke and Frank Parkinson move on from the discoveries of science described above to consider the question of ultimate origin revealed by that science. They are dissatisfied with the explanation by scientists of the stature of Stephen Hawking that the universe merely emerged by accident from an original fluctuating quantum field or "quark soup." Peacocke, the scientist, argues as Peacocke, the theologian, that the best explanation of how the world revealed by science comes to be here in the first place is that it is grounded in what he calls Ultimate Reality. Using the scientific process of inference, Peacocke concludes that this Ultimate Reality can be regarded as a suprapersonal creator God who participates along with his creation in a process of unfolding evolution.

Parkinson argues that the universe emerged as an act of will from a divine source of infinite energy. He is less interested in the notion of a suprapersonal God than in the conviction that because the cosmos emerged as an act of thought from divine consciousness, then everything contained in that absolute

consciousness is in the world. This means that all of humanity and everything else in the universe are fundamentally interconnected in spirit.

However, the further extension of this concept that the universe is made up of "God stuff" means that what we know as evolution is "God-in-this-world unfolding." The creating divinity is not separate from what is created. It is the Holy Spirit from which humans are derived as its highest expression of consciousness, which means that we "humans constitute in a unique way this divine spirit in action."(23)

In this explanation, we have found the answer to Vaclav Havel's question. The true purpose of our existence is to be conscious co-creators with the Holy Spirit, who is within us, working with us such that our human spirit is the "Holy Spirit seeking completion in *our* search for completion."(24)

The unmistakable thrust of this line of thought is one of becoming. It looks forward to the emergence of a new kind of human as different in consciousness from current humanity as we are from our apelike forbears. Parkinson even suggests a name for this new form of *Homo sapiens* as *Homo novus*.

Of course, there is a danger that we may fail to attain this next step in evolution. Vaclav Havel, in his speech in Independence Hall, Philadelphia on July 4, 1994, reminded his audience that: "we are parts of a greater whole. If we endanger her, she will dispense with us in the interest of a higher value—that is, life itself."(25)

Facing this issue, Arthur Peacocke reasons that the only way the on-going process of creation can be achieved is through the evolution of self-conscious, freely choosing beings, namely us. The story of humanity is its struggle to discover and choose life-sustaining values, which by their very nature require free consent of the choosers.

On this subject, three scholars in 1996 spent two intensive days reflecting about the human condition and the possible future. Sociologist Ervin Laszlo, psychologist Stan Graf and physicist, Peter Russell, came to the conclusion that consciousness was the key issue above everything else. Their reflections have been published in a book called *The Consciousness Revolution*. An excerpt appeared in the Spring 2004 issue of *Living Lightly.*

Laszlo puts it this way: "Perhaps it is not entirely exaggerated to say that there is such a thing as a mind of humanity, something like a noosphere, a collective unconscious operating in and around all of us, which

is now beginning to show up in the consciousness of individuals."(26). Graf pointed to the sudden and unexpected collapse of the Soviet Union as an example of this shift in consciousness in action. Russell concluded that "changing consciousness is valuable in itself. Maybe it will lead to a world in which we can avoid some of the catastrophes. Maybe it will not. But either way it is absolutely essential." (27)

For another perspective on how well we are doing on the quest for changing consciousness and life-sustaining values, we can turn to historical analysis, culminating in the achievement of the Universal Declaration of Human Rights on December 10, 1948.

From Ancient Traditions to Human Rights

An engrossing account of human progress from ancient times to the 20th century has been provided by Charlotte Waterlow in *The Hinge of History*. She argues that history shows that in traditional societies preceding civilization there was no clear understanding of the significance of personhood. Culture was collective, set within the context of a universe which was regarded as divine. In the modern age a supreme leap forward is being taken into the understanding and expression of personhood, but there is great confusion about its divine context.(28)

In other words, we have made great progress in articulating the idea that a world society can be built upon the foundations of a moral code as set forth in the Universal Declaration of Human Rights, but we have lost touch with the Source of those Rights. Our secular society is proceeding on the assumption that we can change the world as we like by using and applying the knowledge given to us by science, and we are making a mess of it.

Again the voice of Vaclav Havel can be heard on this issue, in the same speech quoted above. If the idea of human rights "is to be more than just a slogan mocked by half the world," it must be anchored in a different place, in the understanding that we are mysteriously connected to the entire universe. "Only someone who submits to the authority of the universal order and of Creation, who values the right to be a part of it and participate in it, can genuinely value himself and his neighbors and thus honor their rights as well."(29) In these last statements we are coming to the nub of the issue for future human progress.

Charlotte Waterlow argues that, having achieved the sense of personhood, the way forward is through "the doctrine that the universe is full of persons, united by love." This is the only way we can find a solution to our central human problem of envisioning the goals for the evolution of our planet.

Notably, this is also the doctrine of "the warm heart" proclaimed by the Dalai Lama. His message consistently repeated as he travels throughout the world is that "true happiness comes not from a limited concern for one's own well-being, or that of those one feels close to, but from developing love and compassion for all sentient beings."(30)

The Dalai Lama sees the cultivation of these human qualities as part of the educational process. Significantly, in April 2004, he was in Vancouver to participate in a round table conference on this subject with other visionary leaders addressing the topic "Balancing Educating the Mind with Educating the Heart."

Is the modern secular world of corporate profits, economic globalization, nuclear power, and missile defence systems ready to listen to the doctrine of the warm heart and universal love? Perhaps this is a good question for our own round table discussion to consider as we look at what UNESCO is contributing to building a knowledge society fit for a sustainable global civilization.

ROLE FOR UNESCO

It is interesting to note that UNESCO documents pertaining to the subject of the knowledge society do not raise serious concerns about the quality or nature of the knowledge being produced, but rather accept it as a given element of the modern age, which should be more equitably shared among member states and peoples. The thesis of this paper is that the knowledge society that has been building over several centuries driven mainly by Western science, contains fundamental flaws, which if not corrected will continue to work in opposition to the objective of achieving sustainability.

This is not to depreciate the many benefits that the knowledge society contributes to humanity or to deny the need to share those benefits more equitably, but rather to say that UNESCO should also focus its power and influence on the central predicament facing humanity as a whole, driven and exacerbated by a knowledge base focused on economic growth and material consumption.

The work of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) is certainly a step in the right direction. Summary documents acknowledge that "the future of all mankind and of our planet is at stake" and raise ethical concerns about the availability of fresh water, the accessibility of information, the use of energy, and the adventure of humans into outer space.(31)

However, all of these are surely symptoms of the central problem that humanity is investing its energy in building a knowledge base that increases our disorder within the natural world.

There is no question that the problems arising out of the creation of a knowledge society require an ethical approach to address them. At Creative Learning International, we have developed the concept of the Ethical Competence Framework to assist organizations in assessing their level of ethical competence in three dimensions—personal, social and global. As shown in Figure 1, the first questions how we maintain our personal commitment to an ethical life; the second, how we handle relationships with others; and the third, how we see the Earth and all life on it as a web of delicate connections requiring stewardship for sustainability.(32)

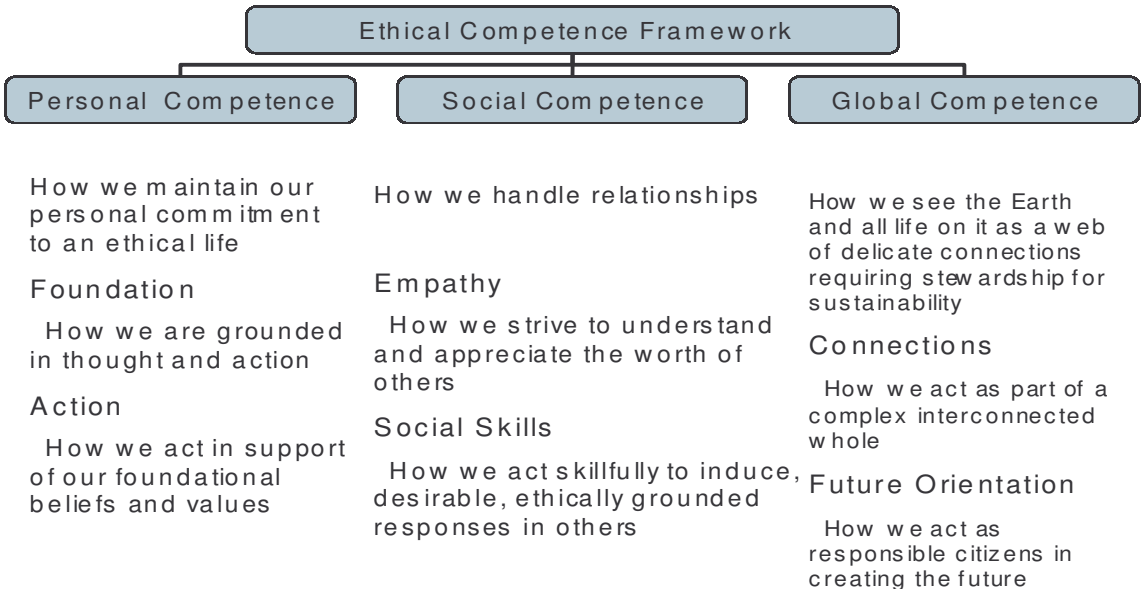

Figure 1

Ethical Competence Framework

In contrast, the Declaration of Principles coming out of the World Summit on the Information Society held in Gevena in 2003 is silent on questions about the worth of the knowledge to be shared around the world. "We are firmly convinced," it states, "that we are collectively entering a new era of enormous potential."(33) Enormous potential for what? If the concerns expressed by the credible authorities reviewed in this paper are valid, then without a fundamental change of direction in the way we are building the knowledge society, our efforts are creating enormous potential for ecological and civilizational collapse.

On a more positive note, one other voice from the United Nations family who should be heard on this subject is that of Robert Muller, now retired but formerly assistant to three Secretaries General. In his passionately written book, *New Genesis*, Muller portrays the United Nations and its extensive network as the best hope for humanity. Significantly, he repeatedly refers to the need to build the values of love and compassion into our human relationships. He acknowledges and celebrates the great progress of science that has enabled humanity in the 21st century to become "a new transcendental species" in terms of intellectual and technological achievements. However, "we have made less progress in expanding and transcending our hearts and souls, our morality and spirituality."(34)

"We are only at the beginning of a world ethics," Muller states.(35) Could UNESCO not now take the lead in making up this deficit? Could the Canadian Commission for UNESCO offer leadership to encourage a shift toward a knowledge society of compassionate caring for all humanity, built on ecological principles and a universal spirituality in which to ground the Universal Declaration of Human Rights?

CONCLUSION

We began this inquiry into the nature and viability of the knowledge society with a question from Vaclav Havel. Does our reluctance or inability to address the major issues confronting humanity, despite our already vast and increasing knowledge, not imply that something needs to change in "the sphere of the spirit?" Do we not need to understand differently and more perfectly "the true purpose of our existence?"

We examined the issue from the perspective of several disciplines and lines of enquiry: ecological economics (William Rees); systems thinking (Donella Meadows); cosmology and theology (Frank Parkinson and Arthur Peacocke); philosophy of consciousness (Christian de Quincey); ecology and

education (Fritjof Capra); ecology and economics (Paul Hawken, Amory Lovins and L. Hunter Lovins); spiritual economics (Danah Zohar); philosophy of knowledge (Jerzy Wojciechowski); values-based education (Living Values Program); global sustainability (the Earth Charter); history of cultures (Thomas Berry); sociology, psychology and physics (Ervin Laszlo, Stan Graf and Peter Russell); history of civilizations (Charlotte Waterlow); and Buddhist spirituality (the Dalai Lama).

If our transdisciplinary enquiry has been helpful it should have created new intellectual space, generated emergent knowledge, and enlarged our future choices. It should have opened up our minds (and hearts) to new possibilities and warned us of the dangers of unwise choices. What, indeed, have we learned from this enquiry?

We have learned that the dominant economic policy of the industrialized world manifesting in a process of economic globalization is, in fact, unquestioning acceptance of the cultural myth of sustainability through growth, which positions an ever expanding human enterprise to increasingly consume and contaminate the ecosphere on which we depend for life. The science and technology from which this enterprise is derived places unconditional faith in objective reality but fails to connect with the human need for intrinsic meaning. The knowledge derived from this science base tells us much about how the world works, but does little for moral improvement. We achieve greater power *to do* but make little progress on how *to be*.

Though the cumulative thrust of this knowledge-based enterprise is essentially destructive, it nevertheless carries within it the seeds of a new genesis. The science of ecology reveals the principles on which nature has maintained conditions of sustainability over hundreds of millions of years. A new pedagogy of ecoliteracy can guide human creativity to embrace these ecological principles in the design of human organizations and institutions. Initiatives such as the Earth Charter and the Living Values Program, though still at the margins of human activity, are growing in influence and hold great potential for making qualitative improvement.

However, if we are to reach down deep to effect change in what Vaclav Havel calls “the sphere of the spirit,” we must search within the dominant knowledge system of science for transcendent ideas. These are now emerging in the nexus between science and religion, where revelations of science provide an understanding of human evolution as an expression of divine intent. The true purpose of our existence is seen as a continuous process of co-creation with the Original Consciousness or Ultimate Reality, from which the living universe is derived. Evidence of human progress in this direction is seen in the

Universal Declaration of Human Rights, but we must now embrace multiple ways of knowing that will transcend our current preoccupation with limited self-interest to release our human potential for love and compassion for all of Creation.

We stand at the threshold of this new genesis. There is a sense of shift in the human ethos "as if something is on the way out and something else is painfully being born."(36) This has happened before in human history but never on the scale of a global civilization and never when the stakes have been as high as the extinction of the species.

This is the challenge we face in creating a knowledge society sufficiently robust and enlightened to sustain the human enterprise within the ecosphere from which we are derived. Let us accept the challenge with goodwill, strong hearts and unlimited courage and determination to succeed; and as a result of our discussions here today, let us call on UNESCO to lead the change that we seek to see.

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