

The Systemic Development Institute

in association with

Global Network Australia

**Learning from the Future:
Of Systems, Scenarios
and
Strategies**

Work Book

Richard Bawden AM PhD
Michigan State University

Your Facilitator

Richard Bawden AM PhD FRSA

Richard Bawden has experiences working with the strategic development of organizations, institutions and communities that extend over more than two decades. For much of that time he was a senior academic and executive administrator at the University of Western Sydney in Australia. During that period he led a series of initiatives concerned with the innovative integration of experiential learning with systems theories, philosophies and practices. The essential focus of this work was on the inter-relationships between the learning capabilities of individuals and the systemic developmental strategies of the organizations, institutions and communities with which they were involved. As a senior executive within his own institution, he was also intimately associated with the strategic development of that organization and was thus able to contribute concurrently to both practice and theory.

His appointment as a Faculty Dean in 1978 was followed a decade later with his appointment as the foundation Professor of Systemic Development at the University of Western Sydney, and in 1995, as the foundation Director of the Centre for Systemic Development at the same institution. In 1999, he was appointed Visiting Distinguished University Professor at Michigan State University in the United States of America, where he continues to work and reside. He has been a Visiting Scholar/Professor at the Open University in England, the University of Natal in South Africa, Tamil Nadu Agricultural University in India, and Rutgers and Cornell Universities in the USA. He has also been a consultant to strategic development projects in more than a dozen countries across five continents working with such international development agencies as The World Bank, The Asian Development Bank, the United Nations Development Fund, UNESCO, the Ford and Kellogg Development Foundations, and the international development agencies of Australia and the United States of America.

In addition to his academic posts, Richard Bawden is a foundation director of Global Business Network Australia and of the Systemic Development Institute, and is a senior partner and director of the consulting agency Systemic Development Associates. Through these connections he has worked on systemic strategic development initiatives with more than thirty organizations across both private and public sectors within Australia as well as overseas including Warner Lambert Pty Ltd, Pacific Power, the Australian Taxation Office, and the Australian Business Foundation. Scenario development workshops have been a key aspect of many of these projects, while systemic theories and practices have provided the foundations for all of them.

Professor Bawden has been a Fellow of the Royal Society for the encouragement of Arts, Manufactures and Commerce (FRSA) since 1990 and on Australia Day 2000 he was appointed to Membership of the Order of Australia (AM) in recognition of his national and international work in systemic development.

**Oops:
Strategic planners nightmares.**

“Heavier than air machines are impossible”

Lord Kelvin British mathematician, physicist, and President of the Royal Society
c 1895

“With over fifty foreign cars already on sale here, the Japanese auto industry isn’t likely to carve out a big slice of the U.S. market for itself”

Business Week August 1968

“A severe depression like that of 1920-21 is outside the range of probability”

The Harvard Economic Society November 1929

“I think that there is a world market for about five computers”

Thomas Watson, Chairman of IBM 1943

“There is no reason for any individual to have a computer in their home”

Ken Olson President Digital Equipment Corporation 1977

“We don’t like their sound. Groups of guitars are on their way out”

Decca Recording Executive turning down the Beatles in 1962

“The phonograph...is not of any commercial value”

Thomas Alva Edison c1880

“No matter what happens, the U.S. navy is not going to get caught napping”

Frank Knox, Secretary of the Navy, December 1941 just prior to the Pearl Harbor raids by the Japanese.

“They couldn’t hit an elephant at this dist.....”

The last words of John B. Sedgwick, Battle of Spotsylvania 1864

Source: C.Cerf and V. Navasky: The Experts Speak Pantheon Books 1984

In Response:

“It has been my repeated experience that the perceptions which emerge when the disciplined approach of scenario analysis is practiced are not only richer and substantially different in critical aspects from the previous implicit view. They are also qualitatively different. The process of converting information into fresh perceptions has something of a “breeder effect”: it clearly generates energy, much more energy than has been consumed during the process of scenario analysis in terms of time and effort.”

Pierre Wack

“In short, scenario planning attempts to capture the richness and range of possibilities, stimulating decision makers to consider changes they would otherwise have ignored. At the same time it organizes those possibilities into narratives that are easier to grasp and use than great volumes of data.

Above all however, scenarios are aimed at challenging the prevailing mind-set”.

Paul Shoemaker

“Scenario building develops means that endure, rather than ends that rarely come true. It builds new working relationships between people as well as team coherence”.

Robert Flood

“Scenarios are not seen as quasi-forecasts but as perception devices.”
“Scenarios are used as a means of thinking through strategy against a number of structurally quite different, but plausible future models of the world”.

Kees van der Heijden

“In one way or another we are forced to deal with complexity, with “wholes’ or “systems” in all fields of knowledge. This implies a basic re-orientation in scientific thinking”

Ludwig von Bertalanffy

Strategies for the future: a Systems Approach to Scenario Planning

Welcome and Introduction

Welcome to this workshop on *Learning from the Future: Of Systems, Scenarios and Strategies*. This workbook is designed as a ‘takeaway’ which combines introductory notes to each of the sessions, with explanatory notes and instructions for each of the exercises. It also provides space for you to make your own observations, and record session outcomes as you go. At the end of the book there are a number of appendices in which some of the theories and principles behind the practices that will be pursued during the day are further developed. Appendix One is a bibliography.

The logic behind the workshop is as follows: working out desirable and feasible strategies for the future is important for most of us, whether we are working in organisations in the public or private sector or in communities concerned with development. Although formal management tools offer considerable assistance in this regard they are often reduced to little more than temporary and somewhat superficial ‘fads’ because they are adopted in isolation from each other, and because their theoretical and philosophical foundations are rarely explored, let alone embraced. Nowhere is this more obvious than with corporate and institutional approaches to strategic development.

An opposite problem is sometimes associated with community groups, environmental groups, and NGOs, which may not use sophisticated tools of management that could be very useful for their future development.

In this workshop, participants will have the opportunity to learn about, as well as learn how to use, two of the most powerful approaches to strategic development currently available, in a manner that facilitates a profound integration between the two. Accordingly, during the course of the day, we will together explore both the practical use of, and the thinking behind, the integration of:

Systems thinking with Scenario planning

Yet:

- There is much more to *systemics* than *thinking*, and
- There is much more to *scenarios* than *planning*.

And in these days of complexity, change and chaos, there is much more to strategic development than planning.

Thinking and planning are activities within the process of learning and so in essence what we will be doing during the day is learning *about the future from the future* as we set about imagining and learning from different forms that our future might assume.

This is an exercise in learning how help our organization/community to learn its way into the future.

What we are going to be essentially concerned with is the process through which our organizations or communities, that we can regard as *systems*, learn to develop *strategies* in the face of different *scenarios* of the future in which they might have to operate.

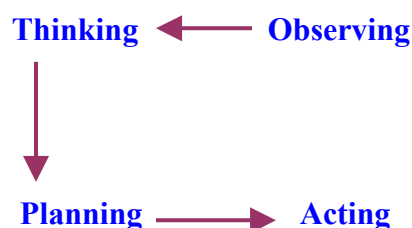
In other words, we will be investigating how our organizational systems learn how to become adaptive to the dynamic and complex environments in which they may well have to operate in the future.

The fundamental difficulty of *planning for the future* is that the future is not only unknown but also essentially unknowable in its details. Yet if we take enough critical variables into consideration, we can imagine what *it* might look like, or more accurately, what *they* might look like. At the heart of the *scenario process* is the belief that we need to first ‘imagine into existence’ a range of different, yet plausible, futures. Then we need to explore this diverse spectrum with respect to what they can tell us about the sort of strategies that we might need to develop to deal with them, whatever the future actually turns out to be like. It is an exercise in developing foresight, if you will. As Peter Schwartz, one of the gurus of the art puts it:

“The purpose of Scenario Planning is not to get the future right but to avoid getting it wrong”.

It is important to emphasise at the outset that the learning skills that one develops in the course of the scenario process are as vital as are the views of the future that it develops. From a scenario perspective, strategic development is an on-going learning/adapting activity akin to the *kaizen* principle of continuous improvement. The world about us - the environment in which we live and work - is always unfolding in some unique, unpredictable, even chaotic way. We need to be continuously adapting ourselves and by extension, our organisations and our communities, to such environmental changes. Better yet, there are times when we can put ourselves into positions where the environment needs to adapt to accommodate our activities. It is the possibility of this (ideal) mutuality of relationship that encourages us to think in terms of strategy as *co-adaptation* between our organisation or community, and the environment in which it must operate.

We shall have a lot more to say about this phenomenon later, particularly with respect to the application of systems ideas. We shall also attempt to capture its essence in practice through a fairly rigorous reliance on a particular process of learning that has personal experience as the foundation of knowledge rather than mere theory. Together we shall thus collaborate in what we can call experiential learning where together we shall collectively be engaged in the following four activities:



The Experiential Process

In practice, this experiential process is rarely as systematic or as ‘cyclical’ as this model suggests. Much more typically, our learning involves these activities in almost random order and as much through the interactions of the different activities as the activities themselves. In this manner we can say that experiential learning is a *systemic* process (pervasive and interactive) rather than a *systematic* one (one step at a time as a linear progression). While they are not illustrated here, emotions and feelings also play very substantial roles in the process, and this is especially so when it is conducted collectively. Power relationships and the range of different intentionalities that exist within groups of learners, are also of profound importance as potential sources of ‘distortion’!

EXERCISE ONE - Recording Individual Challenges and Hopes for the Workshop.

For most of the day, you will be working in groups with people who are, at this stage of the proceedings, probably strangers to you with interests and professional concerns that differ from yours. From the point of view of strategic development, that is not as optimal as it would be if you were all from the same organization or community. On the other hand, the diversity of knowledge, experience, values, and worldviews that will be present within each group, represents a wonderfully rich resource for the process of scenario creation.

At this point it is important for you to record here in the workbook, one issue that is of particular interest or concern to your organisation/community with respect to its future development, that is generally held or that you personally believe is vital. The issue might represent a challenge or an opportunity. It might be a looming decision about diversification, property investment, divestment, or a choice between different HR policies. Maybe you need to choose between different development projects, or make decisions about potential future collaborations, business amalgamations, service delivery, resource availability, or governance of the organization. Whatever the issue:

It might represent a very serious challenge to the values that you hold.

We shall return to this particular issue towards the end of the day.

My issue:

Now please record your hopes and/or expectations for this workshop. When this is complete, please make it available for photocopying. The copy will be posted on one of the walls, along with those of all the other participants, for the interest of all and as a guide to the workshop organisers. The original will be returned to you:

Name:

Affiliation:

My hopes/expectations for this workshop are that:

“The Gentle Art of Re-Perceiving”

The late Pierre Wack, one of the founding fathers of the scenario planning process at Royal Dutch Shell in the 1970s referred to it as *the gentle art of re-perceiving*. His basic thesis was that, in contrast to earlier times, the future for business organisations in particular had become so unstable – such a “moving target” – that previously conventional processes of planning based on forecasts was no longer appropriate. “The only solution” he argued “is to accept uncertainty, try to understand it and make it part of your understanding. Uncertainty today is not just an occasional, temporary deviation from reasonable predictability; it is a basic structural feature of the business environment. Therefore the method used to think about and plan for the future must be made appropriate to the new nature of the business environment”.

Or the environment of any organisational system, for the purposes of our own argument here today. Wack’s emphasis on *ways of thinking about the future* was very deliberate. In this he was supported by André Bénard, at that time one of the Group Managing Directors at Shell:

“Experience has taught us that the scenario technique is more conducive to forcing people to think about the future than the forecasting techniques we used to use”.

That experience led to a number of key insights at Shell, among them being the distinction between ‘first generation scenarios - different projections or extrapolations of trends of factors considered important to that organisation – and ‘decision scenarios’.

“Good (first generation) scenarios are not enough” Wack was to record. “To be effective, they must involve management, top and middle, in understanding and anticipating the unfolding business environment much more intimately than would be the case in the traditional planning process. Scenarios can be successful in structuring uncertainty only when (i) they are based on a sound analysis of reality, and (ii) they change the decision maker’s assumptions about how the world works and compel him (sic) to change his image of reality. This is different – and more – than simply designing good scenarios”.

“A willingness to face uncertainty and to understand the forces driving it requires an almost revolutionary transformation in a large organisation. And this transformation process is as important as the development of the scenarios themselves.”

From this we might conclude that the main benefits of the scenario planning process are:

- ***Thinking and feeling differently about the nature of the organisation, and about the relationships it has and/or should have with the environments in which must operate***
and
- ***Thinking and feeling (differently) about the future state(s) of the environment in which the organisation might well have to operate.***

EXERCISE TWO: Photolanguage as a Vehicle for re-perceiving – Systems Images

Here we go with an experiential exercise in re-perceiving, which also includes elements of the discipline of social learning – learning through and with others.

- On a table nearby, a host of black and white photographs are displayed. Please go to that table, and without speaking to anyone else, observe what is there. Then, without thinking too much, select a photograph that seems to suggest something to you about **systems** whatever you believe that that word means.
- Please then return to your seat, turn to one of your neighbours, and explain what it is about the photo that you selected, that triggered the notion of **systems** in your imagination. The photo-image acts as a metaphor, as it were: It guides knowledge through feeling.
- Your partner will take brief notes of your comments and will speak on your behalf in the next step of the exercise. This will demand active and appreciative listening. When complete, reverse roles.

Notes on the Notion of Systems – The message of the metaphor:

EXERCISE THREE Identifying Systems Principles

- When each of you has explained your perceptions to your new partner in turn, join up with a further two pairs of participants and have a brief conversation about what collectively you have gathered from this particular process involving photolanguage, about the nature of systems (or the essence of systemicity). Remember that you are to put your partner's perspective, not your own.
- After a few moments, we will as a whole group, share our observations and thoughts, and through this process, generate a collective understanding of the basic principles of systems and systemics.

Systems Principles

From what you have just experienced:

What do you think it means to BE SYSTEMIC?

How does it (would it) FEEL *to* BE SYSTEMIC?

The key idea here is that systems are whole entities with properties that are different from those of the sums of their (interconnected) parts.

This sense of wholeness is said to be an emergent property, as it emerges, somewhat unpredictability through the synergies of interconnectedness.

Systems are always (a) themselves composed of other ‘lower order’ systems (usually called *sub-systems*) and (b) are themselves sub-systems of ‘higher order’ systems (usually called *supra-systems*). Thus, what is usually referred to, as *the environment* of a system is itself a *system* with systemic organisation and properties!

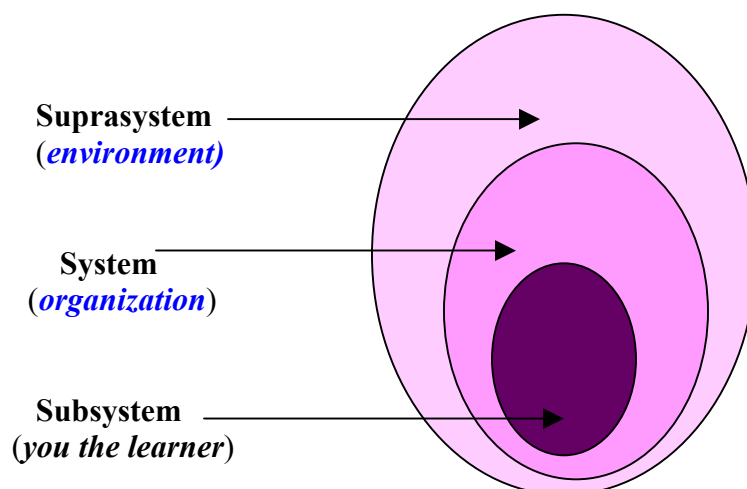
Systems are thus best thought of in three dimensions as a three level *system of systems* (which we might refer to as a *holon*) in which there are always complex networks of dynamic, ever-changing interconnections both within each system level, and between them, with

unique properties emerging with each change of level.

For the present purposes, we are going to take adopt a special interpretation of this model, where:

- The *system* is your organization/community,
- The *suprasystem* is the external environment in which your organizational system has to operate, and
- The key *subsystem* is you – those of you within the organization who are trying to “see” it or “perceive” it, or “understand” it *as if it were a system* embedded within an environmental suprasystem from which it is essentially inseparable.

We say that we are being systemic whenever we adopt this three dimensional view of looking at (perceiving) and dealing with (acting) our organization as if it were a system (in which we ourselves are embedded) and which itself is embedded within its environmental suprasystem.



We continually seek interconnections while being sensitive to the properties that emerge through the tensions of difference that exist between subsystems within systems, and between the different 'systems levels' themselves. We are appreciating these distinctions just as we are appreciating the theory that:

Systems are coherent whole entities that are able to organize themselves in ways that allow them to co-adapt with the environmental suprasystems in which they are embedded.

Thus organizations and communities can be viewed **as** co-adaptive (living) systems that are able to organise themselves in such a manner that they can (a) continuously monitor changes in the environment in which they are embedded, and (b) both adapt to those influences and have an influence themselves.

This idea of systems being able to organise themselves, and learn, stretches the mind somewhat.

For our purposes here we can say that organisational and/or community systems are only able to learn if they contain that which we might refer to as **learning subsystems**.

The concept of the learning subsystem is absolutely central to this workshop, and indeed one of the key objectives here is:

to help you learn how to create and maintain yourselves as learning subsystems, and to experience what that feels like in practice as you explore the system of which you are part and how that system interacts with its suprasystem!

- Organizations and communities are only systems to those within them because they are perceived as such by their learning subsystems.
- The environment in which organisations and communities operate, and must learn to operate in the future, are only suprasystems because they are perceived to be as such by their learning subsystems.
- The learning subsystems are only that because they perceive themselves to be that.

It is *learning subsystems* that perceive the systemic nature of events and things within organisations and communities, or within families or nature itself for that matter, and of the environmental suprasystems in which they must operate.

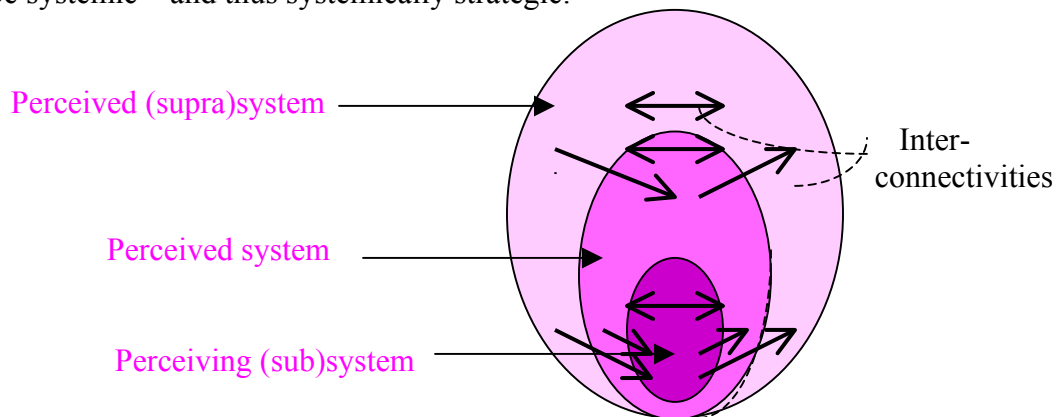
It is *learning subsystems* that perceive and appreciate the interconnectivities within organisational and community systems, and between such systems and the environmental suprasystems in which they must operate.

It is *learning subsystems* that need to perceive plausible future scenarios of the state of the suprasystem, and to explore the potential implications of these for the strategic developments (co-adaptations) of the system of which they are part.

It is thus useful to regard *learning subsystems* as *perceiving systems* and both the organisational and community systems of which they are part, and the environmental suprasystems in which these in turn must operate, as *perceived systems*.

It is important to emphasise at this point that the act of perceiving includes the act of feeling (values and emotions) as well as thinking.

As systems are only perceptions, we will have to amend our notion of organizations and communities as ‘self-adapting whole entities’ a little later, but again, this simplified notion is an adequate starting point for our exploration into what it means to be systemic – and thus systemically strategic.



Effective strategic development, scenario planning, systems thinking, and organisational and community learning, are all functions of perceiving systems

Perceiving systems are:

- Whole entities, that are critically aware of their own sense of wholeness, their
- Coherence and close interconnections with other (and different) subsystems, the system of which they are part, and the suprasystem beyond;
- And their capacities to think, feel, value and learn.

They are

- Characterised by their innate diversity, their
- Self-organising capabilities, their
- Purposefulness,
- Self-reflexivity,
- Self-criticality, their capacity for informed
- Self-development and, most significantly,
- Self-transformations.

Perceiving systems are capable of re-perceiving themselves, as well as the world about them, and of transforming themselves and influencing the transformation of the world about them accordingly.

Shortly we are going to break for coffee after which we shall be self-organising ourselves into a number of groups that will then operate, for most of the rest of the day, as learning subsystems (perceiving systems) dedicated to the task of the gentle

art of re-perceiving the future. Just before we do that however, it will be worth our while to pause for a moment or two for a reflection. A brief period of quiet contemplation followed by a brief dialogue of clarification about what has been presented to date, how you feel about that, how you have reacted so far, and what you might do to respond differently as we proceed.

You might like to make some written observations about these matters. Such critical reflection is a vital aspect of learning, just as critical reflexivity (the capacity to collectively reflect through the self-confrontations of self-criticism) is a crucial aspect of learning subsystems.

EXERCISE FOUR Reflections-on-action - The Four R's

Recall the sequences of events so far: What have you done? With whom? What was said? By whom?

Relive the experience. What was it like? How did you feel? What were the high points? And the low points? How did it affect you? What did you value?

Re-interpret the experience: What meaning do you attach to what happened and what was said? And how you think it affected you? Did it affect what you value? Or believe?

Respond to the re-interpretation: Is there anything that you should do in response to what you have learned from what you perceived to have happened? What is it? Why is this appropriate?

COFFEE BREAK

EXERCISE FOUR *Creating Perceiving Systems*

You are now invited to form into groups of six. Each group will then start the task of creating itself as a self-organising *perceiving system*. A useful starting point will be the exploration of the diversity that is present within the group of you.

Please spend five or ten minutes introducing yourselves to the rest of the group with a particular emphasis on how you feel alike, and how you might differ from one another. A focus for this might be a brief sharing of the entries that you made earlier under issues, and personal hopes and expectations.

You might like to make brief notes about each of your new collaborators in this context:

Name:
Name:
Name:
Name:
Name:
Self:

The Systemic Scenario Process – Step One – Back to the Past

While the whole idea of scenario planning is to come to grips with the potential plausible states of the environments in which we and our organisations and communities might have to operate in the *future*, there is much to be gained through starting the process with a retrospective examination of the *past*!

In our new systems-speak this translates as:

The idea of systemic scenario learning is to identify the potential states of the suprasystems in which our organisational or community systems might have to operate in the future by examining the nature of the suprasystems at some stage in the past, as perceived by the learning or perceiving subsystem of which we are a part.

What we invite you to do at this point, for 20 minutes or so, is to identify within your group, what you collectively perceive the environment to have been like, a mere three decades or so ago – in the early 1970s. You may choose any or all different ‘levels of analysis’ for this task – from local, through regional to national and then global – or you may choose only one of these. These **boundary judgements** are yours alone to make. You may also decide to firstly do the task separately as individuals and then pool your results. Or you may decide to do it collectively. The choice is yours.

The real creativity comes in trying to imagine what life was ‘really’ like back then: Not to record passively events from memory, but to engage actively in living the way you might have lived back then – as if it were today!!

In conventional scenario planning processes these environmental aspects are explored firstly as **outcomes** (as states) and then from the perspective of their **causalities** (as ‘field forces’). We will be taking a somewhat different perspective to this later, but for the moment, it is worth adopting the conventional approach. Thus in identifying what the world looked like in 1970, it is also worth trying to identify some of the ‘underlying forces’ that might have ‘driven the changes’ that led to the situation that you are describing (particularly with reference to the way things had been in earlier years/decades).

It is useful to think about such environmental states under a number of different dimensions of the environment – intellectual, natural, social, political, economic, cultural, and technological - INSPECT. You might choose to allocate one person to each of these categories below, or again, to work through the list collectively. As we are not going to do much with the picture of the past that emerges, except to share our perceptions, we can simply use the boxes below to record our group observations.

When we explore the future, we will record our observations in more portable ways in order that we might ‘cluster’ and analyse them more conveniently, display them more obviously, and seek key interconnections between them with greater ease. But for the moment, we can stick with ‘lists’ generated through investigation of the (I)NSPECT categories below, with the ‘I’ being ignored for the moment.

EXERCISE FIVE – (I)NSPECTING the past.

Natural (biophysical) – examples include the prevailing climatic and weather patterns, population trends and demographics, the sizes of the ‘pools’ of natural resources and their dynamics, the occurrence of ‘natural disasters’ including disease epidemics and pandemics, pestilence, famine, as well as droughts, floods, volcanic eruptions, earthquakes, fires, etc the ‘state’ of the environment with respect to its integrity (state of degradation, pollution etc), biodiversity, landscape etc

Underlying forces: drivers of change

Social – examples here include the prevailing social mores of the day, particular social issues as they relate to matters such as levels of social stability/instability, war and peace, civil unrest, crime, immigration and refugee patterns, working conditions and patterns of work, levels of unemployment and social welfare, the nature and accessibility of organisations such as shops, businesses, and government and non-government agencies including those institutions concerned with health, education, justice, maintenance of law and order etc, the extent of the ‘social capital’ within communities, and their relative stabilities and foci, the collective commitments and enthusiasms etc

Underlying forces: drivers of change

Political - examples here include the prevailing political and geopolitical climates and paradigms, the essential 'hot' political issues of the day, new laws and legislation, especially controversial ones in any of the main economic sectors such as health, welfare, the military, education, finance, and the treasury itself, the very nature of politics at all levels of society, and the nature of governance etc

Underlying forces: drivers of change

Economic - examples here include the state of economies at local, national, and international levels, the strength of the currency, the situation with respect to the balance of payments, prevailing rates and trends of inflation, interest, and other vital econometrics, the very nature of political economics, the 'flavour' of current economic policy, and the economic theories and philosophies that prevail etc

Underlying forces: drivers of change

Cultural – examples here include the prevailing cultural climate with respect to attitudes and values and how these are being expressed collectively through religion, through science and technology, the visual and performing arts, philosophy, sport, the media etc, matters to do with racial, ethnic, gender, disabilities, language and other distinctions, tastes and fashions in clothes, food, and other consumables, architectural styles, design in general, music, art, lifestyles etc prevailing paradigms.

Underlying forces: drivers of change

Technological - examples here include the prevailing technologies of the day and emerging technological innovations in transport and construction, military defense, medicine, agriculture and food, manufacturing, commerce in general, with special reference to materials, information and genetic technologies etc.

Underlying forces: drivers of change

The Systemic Scenario Process – Step Two - The Future and the Suprasystem

And from now we get seriously systemic. Let's start with our own subsystem.

EXERCISE SIX Reflections on Learning to be Systemic

Just pause for a moment and think about your group from the perspective of a perceiving system, and briefly and respond briefly to each of the questions below as an individual:

Does it have a coherence about it?

Do you feel a sense of wholeness, and interconnectedness?

Do you feel connected to the task? And to the others doing the task with you?

Does the group (the perceiving subsystem) respect, indeed seek and celebrate a diversity of opinion? Have any differences of opinion arisen yet?

Is it self-conscious of its form and function?

Is it self-critical, self-developmental, self- transformational?

Is it self-organisational? What style of leadership characterizes it (if any)?

What, if anything in your opinion, needs to be done to improve the systemicity of the group?

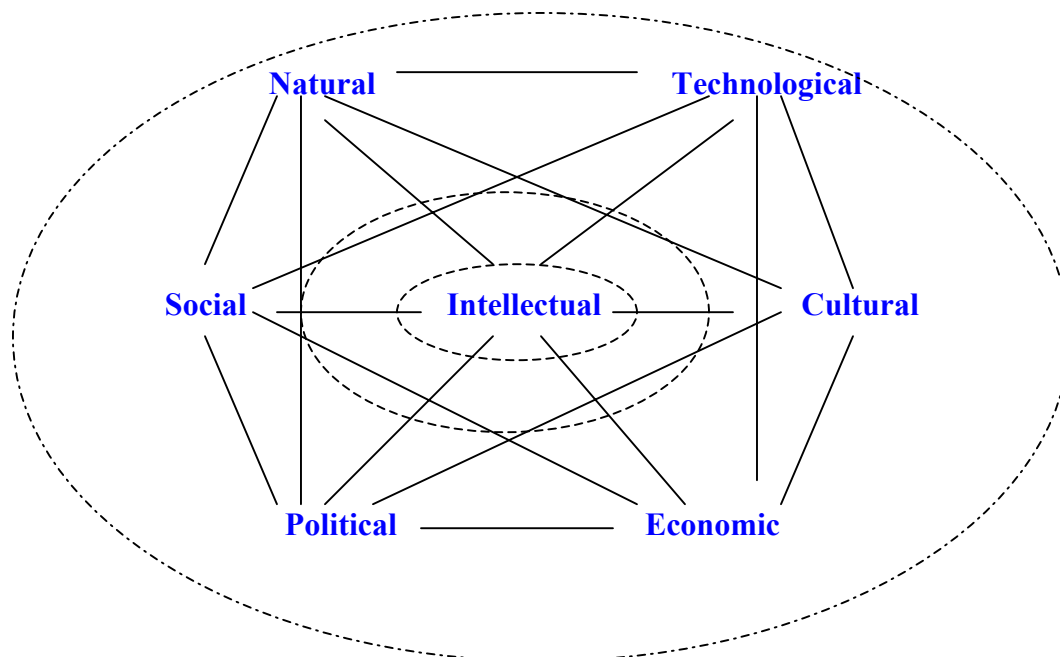
Exploring the Suprasystem

As you engaged with the previous task of looking retrospectively at the environment, you may have considerable difficulties in using the six categories of environment as if they were independent of each other. Many of the issues that you identified fitted across the categories rather than within one. Furthermore, you may have noticed that the ‘underlying forces’ that you identified were also multi-dimensional. Finally, you may have observed only your perceptions and not the actual ‘truth of the matter’. This may have been particularly noticeable whenever values were involved, or judgements being made as the essence of perception is idiosyncrasy.

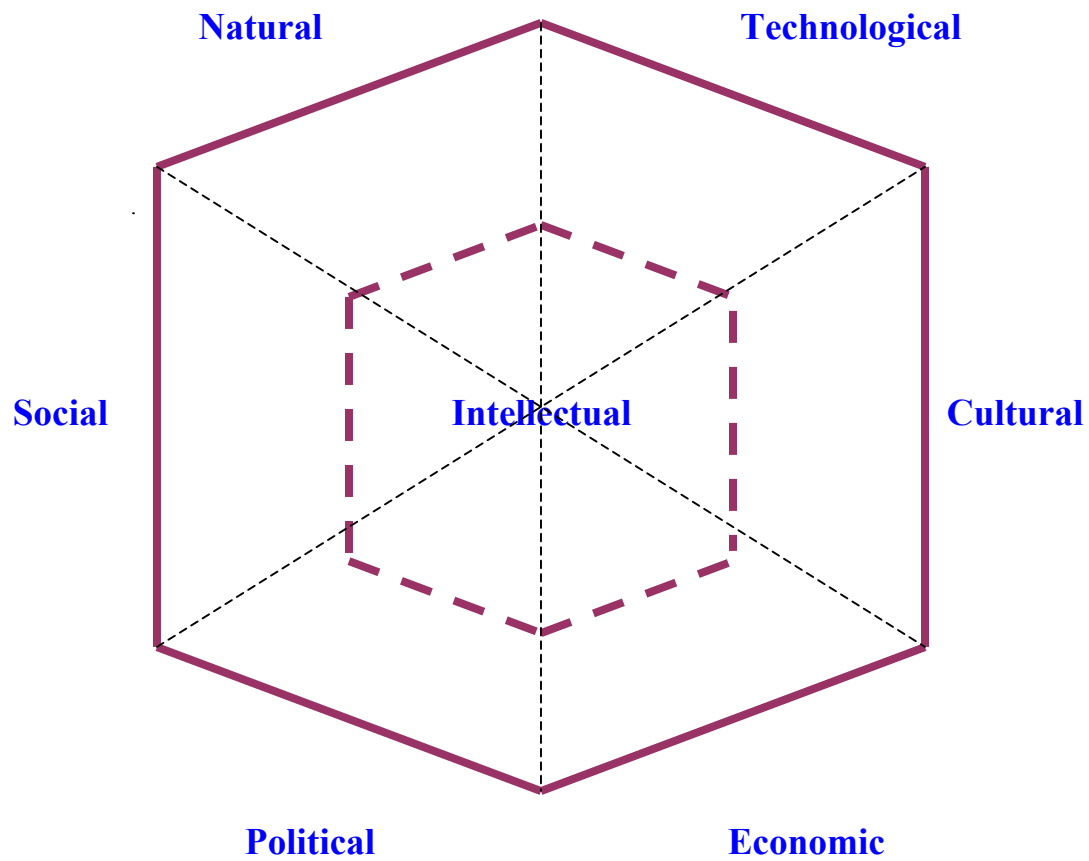
We each have our own perceptual frameworks through which we make sense of the world – and such ways of ‘seeing’ or worldview perspectives, tend to remain tacit and unexplored.

In conventional explorations of the world around us, and our inquiries into how it was, how it is, and how it might be in the future, we are bound by the constraints of these perceptual frameworks, world views or *weltanschauungen* (as the Germans might call them). In systemic explorations, we have to learn how to appreciate these phenomena and be prepared to challenge and change our perspectives if we are to really to exploit our creativity and take advantages of the systemic approach to strategic development.

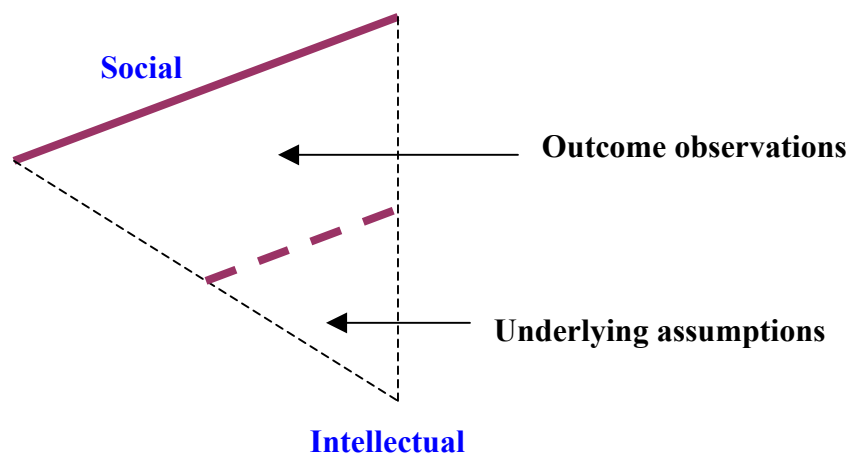
Let’s take another look at the environmental dimensions mentioned above. We need to convert the linear lists of aspects into a more systemic representation, capturing the systemic ‘networked’ nature of the environment (as suprasystem), and appreciating the significance of the **perceiving (sub)system** to the **perceived suprasystem** and to the **systems** embedded within it.



This highly complex **holon** can be converted into a stylised *hexagraph* which can then be used for practical purposes, and indeed you will see a number of these posted around the room for your own use.



They consist of six segments, representing the six dimensions previously recognized, with a seventh, the intellectual, added to the middle. Out from that centre lies a broken line to indicate a sub-sector. Observations about the particular dimension (social in the example below) are recorded in the outer sub-sector, while the inner sub-sector is used to record the basic assumptions behind these observations, thus reflecting particular intellectual or “I” positions (perceptions).



Introducing the “I” dimension

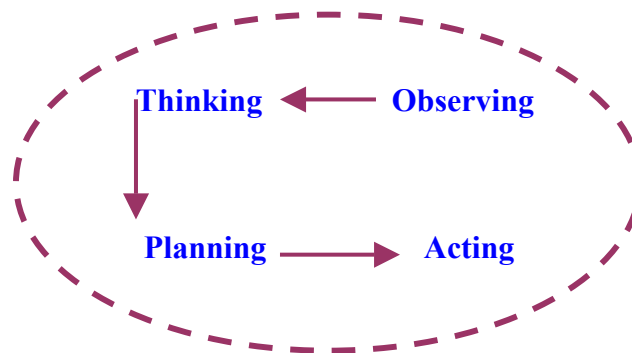
Given the significance that we have attributing to the ‘perceiving sub-system’, and to the process of re-perceiving in particular, it is important at this point to say a little more about the “I” (or *eye*) dimension.

We need to bring together a few things that have been mentioned earlier in the text, starting with the whole purpose of learning about and from scenarios, particularly as it relates to Pierre Wack’s gentle art of re-perceiving or Paul Shoemaker’s submission that:

scenarios are aimed at challenging the prevailing mind-set.

The limitation is that for most of us, most of the time, we cannot recognize just what the prevailing mind-set is!

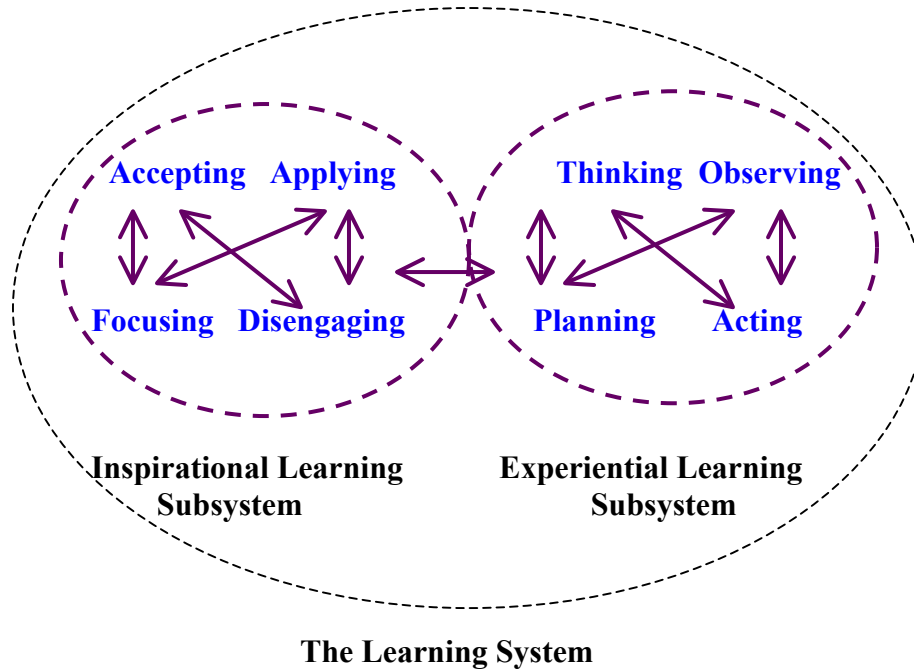
Earlier on in the day, the simplified cyclical learning model re-illustrated below, was introduced, along with the comment to the effect that in ‘real life’ the process was no where near as neat and tidy and systematic, as the model would suggest.



As budding *systemists*, you will now be comfortable with the idea of the learning process as a *system* rather than a *cycle*. In practice, the dynamics of learning clearly have us jumping all over the place rather than following some pre-determined sequence of activities. Thus in our model there should be a far richer pattern of interconnections than has been suggested to date. Also other activities (or system elements) need to be introduced, such as feeling, intuiting, imagining, ‘perspective framing’, valuing etc and we need to accommodate the notions of ‘three dimensionality’, of the self-appreciating nature of living systems, and of the function of self-critique in learning.

We can now suggest that learning systems themselves have two integrated subsystems. One concerned with learning from external experience (‘real’ or ‘imagined’), which we can call the *experiential* learning sub-system, and the other, concerned with accessing internal, innate insights which we can call the *inspirational* learning subsystem. The output of the former is *understanding* (conceptual knowledge if you will), and of the latter is *insights* (spiritual values and beliefs) with the two, when integrated together, giving rise emergently to *meaning* and thence *meaningful action*.

To be effective learners we need to learn how to harness the processes of each of these two learning subsystems, and how to integrate the two together, as the entire learning or perceiving system, to create meaning.



Central to the ideas that we are promoting here is that this system is capable of monitoring, organising, and transforming itself. It can be thought of as itself having three dimensions or levels: Level one concerns itself with the learning about the matter to hand; level two with learning about how we are learning about the matter to hand (learning about learning) and level three with learning about the nature of the beliefs and values that we hold that influence the way we conduct learning at the other two levels! Further details of this model are found in the article in Appendix Two.

Because of the impact that it has on the very nature of the scenarios, through its own structure and functions, and on the way such scenarios will be used eventually in the process of strategic development, the total learning subsystem represents the “I” dimension, and its significance cannot be overestimated.

Scenarios of the future.

Let’s now turn to the future, and to the real focus of scenario building – how to learn from doing it. Your challenge is to create one or more views of the suprasystem of the future and to do that in as systemic a manner as possible.

Let us assume that we are now living in the year 2020.

Your task, within your groups, is to imagine a couple of profoundly different views of what that future world might look like, and to describe them, using the hexagraphs in the following way.

As before we shall be using the (I)NSPECT dimensions, but in a different manner on this occasion. The starting point is to take one of the six categories (social for instance) and ***imagine into being*** a world of the future (2020) with respect to that dimension. It might be useful to look at that segment for 1970 and vary some of the factors very considerably. On the other hand, you can ignore that data altogether, and turn your imaginations on into full gear. You can make it as chaotic as you like – See Appendix Three.

Once again the boundary judgements are yours alone to make.

This time, instead of making notes in this workbook, the ideas are written on *post-its* and posted onto the appropriate segment on one of the large hexagraphs on a wall near your group in the space between the solid line and the broken line within.

Once a number of entries within one of the six categories have been made, the object is to then turn to the other dimensions and, again using *post-its*, make observations in them that connect (a) to those that you have just recorded, and (b) that reflect similar assumptions to those previously recorded.

In the **social** outer sub-sector, for instance, your group might observe that the population of those aged between 40 and 55 is markedly less than would have been predicted by the demographic trends of thirty years ago (today in real time!!). Your assumption here, recorded in the inner sub-sector, is that there has been some catastrophe or other in the years intervening, that has differentially affected a particular cohort of the population. You move next to the **natural** segment where you record the observation that a new arbovirus-related disease, with extremely high mortality, emerged in the first decade of the 21st century. Your assumptions here include the notion that such a virus was sexually transmitted, and that no cure has been found for it yet, although mortality rates are slowing.

You continue across the hexagraph in similar vein, watching a comprehensive story which involves all six dimensions, emerge through iterations of your entries – with the whole story only emerging through the interactions between the different entries and assumptions – which of course, you are free to change as you proceed.

Once you have created one such scenario for the year 2020, the next step is to go back and challenge some of the key assumptions as you have recorded them across the inner sub-sectors of the hexagraphs, and to follow through with a scenario that will be very different because of fundamental changes in the underlying assumptions that you made previously.

In this manner, a second hexagraph is generated that will illustrate a second ‘suprasystemic’ scenario with outcomes that are very different from the first.

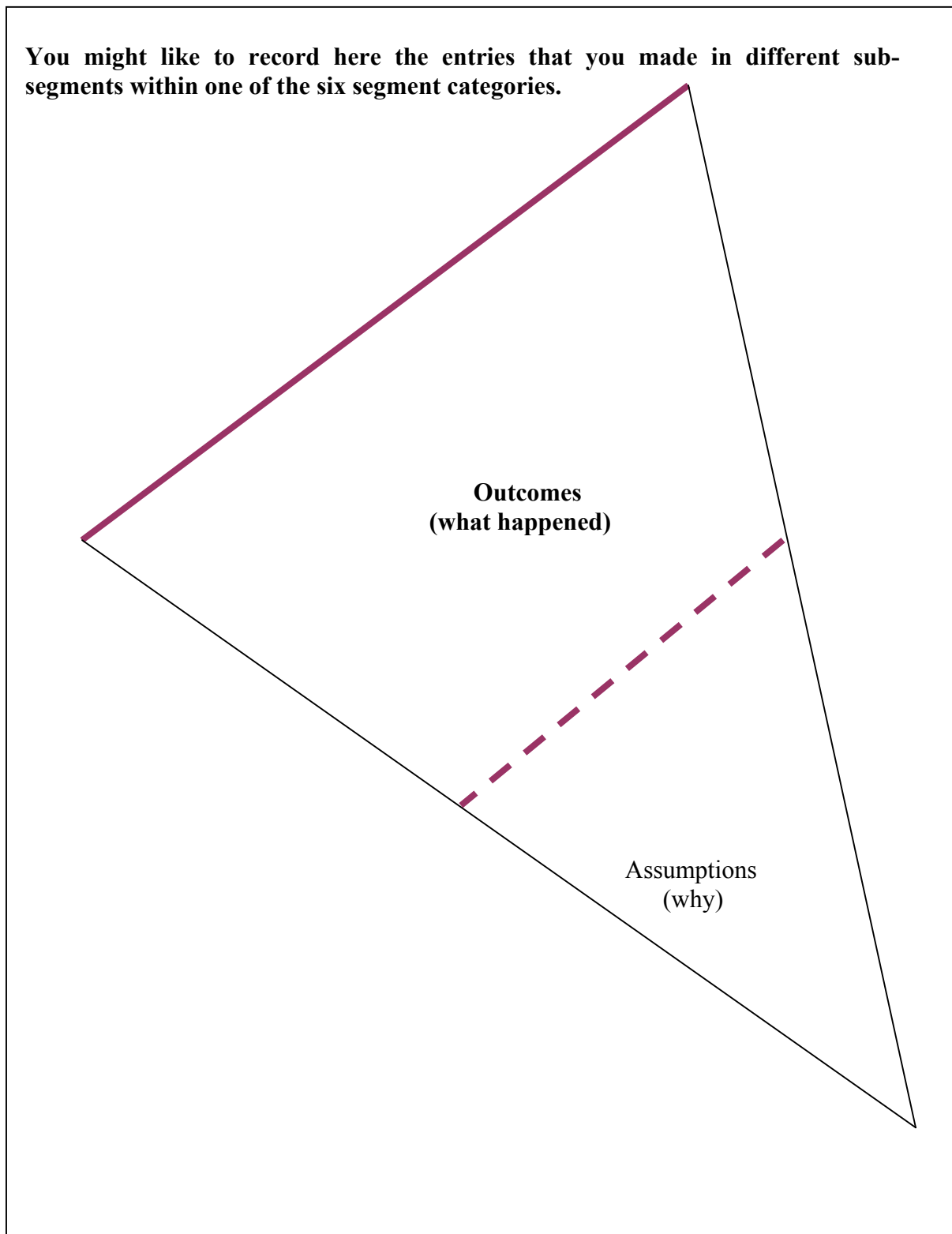
It is these two scenarios that you will work with for the next stage of the process – creating and sharing the story of one or both of your two scenarios with the entire workshop.

Before we move to a description of that stage however, you are invited to begin to start shape the storylines: – the plot of your scenarios that captures the basic observations about life as it is in the year 2020, in which we are all now living and working – and *how it evolved*. What does the time line leading up to 2020 look like?

The aim here is to release as much novelty, creativity, and imagination through the use of all elements and processes of the learning system. You will need to be particularly appreciative of the importance of worldviews or mind-sets, and therefore confident to challenge the assumptions and logic of the scenarios as they emerge. You will also need to be conscious of the power of diversity within the group, and of the poverty of exclusivity. As mentioned previously, power distorts communication and thus system functioning.

EXERCISE SEVEN - Working with the hexagraphs.

You might like to record here the entries that you made in different sub-segments within one of the six segment categories.



As you proceed with this task, remember that you are to do this in the manner of a coherent, critically reflexive, self-transforming learning or perceiving system. It is important therefore for you to record, from time to time, your personal reflections on the way you feel your group is functioning as a *perceiving system*, and, where and when appropriate, to take time out to share these observations.

EXERCISE EIGHT – Reflections-in-action

Recalling the functioning of your group so far: What have you been doing? Have you been doing this in a manner that reflects the functioning of a perceiving system?

Reliving the experience. What has it been like? How are you feeling? Do you feel that you are being systemic?

Re-interpreting the experience: What meaning are you attaching to what is happening and what is being said? How do you think that this is affecting you? How are you interpreting the functioning of your perceiving system?

Responding to the re-interpretation: Is there anything that you should be doing in response to what you are learning from what you are perceiving is happening? What is it? Why is this appropriate?

You might also like to record at this juncture, what your two different scenarios are beginning to look like.

EXERCISE NINE The Essence of the Scenarios

The Essence of Scenario One

The Essence of Scenario Two:

After lunch, each group (*perceiving sub-system*) will be invited to present one or two of the scenarios that have emerged through their activities, as narratives reflecting the state of the world as it now is in the year 2030! The time available for these presentations is very short – and your narratives should therefore be brief and to the point. The transparency of the logic that you have collectively assumed will be an important point for you to consider.

Given the reality of time constraints, we are going to suggest that you have a working lunch during which time you will convert your observations, information, data, opinions etc into ‘compelling narratives’ which you will later share with the whole workshop.

To give you a few clues on this there will now be a short presentation of two case studies (one from South Africa and the other from Australia). Delegates may request further details of both after the workshop, if they are interested in pursuing them.

Two Case Studies

(a) Mont Fleur

In September 1991 some 22 South Africans including within their ranks, business people, trade unionists, academics, and political office bearers, met at Mont Fleur near Stellenbosch. After two further meetings (in November 1991 and March 1992), and a lot of research, extension and consultation in between, the team reached a consensus on the essential elements of four core scenarios that might unfold in South Africa between 1992 and 2002. The starting point for the exercise was the identification of the dimensions of the current crisis that existed at that time, in the country, as perceived by the members of the team as they interpreted the events around them. The three ‘domains’ that were considered to be the most significant in this regard were the political, economic and social. Among the issues identified were:

Political: lack of legitimacy of the current system of governance, widespread mistrust of the security forces, a lack of faith in the judicial system, repression, intimidation, intolerance and political violence, increasing exploitation of ethnic and regional divisions, and the collapse of black local authorities and the breakdown of services in many areas.

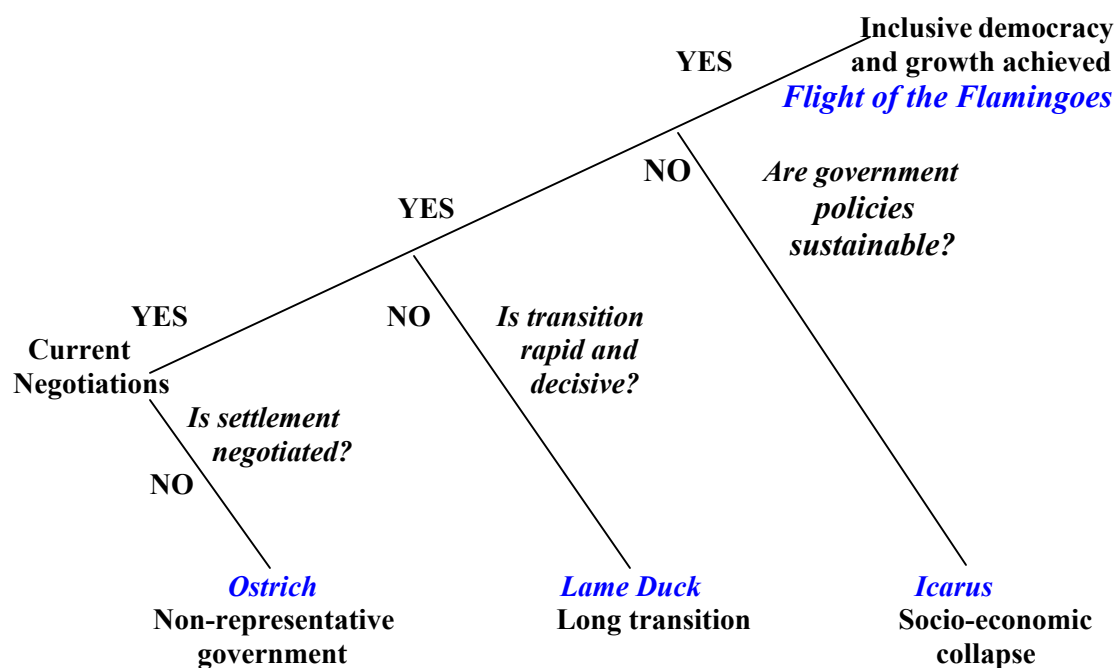
Economic: unsustainability of traditional economic growth path based on primary exports (essentially gold and minerals) and no cheap labour, the narrow base of the economy and the failure of attempts to broaden it, limited production of capital goods needed to expand manufacturing industry, the isolation of the nation from the international technological revolution, and lack of investor confidence.

Social: high unemployment, escalating political and criminal violence, inadequacy of health and education systems to meet the demands being placed on them, the collapse of many rural communities, rapid urbanization, and alienation among youth.

The 30 stories about the possible course of events over upcoming years that the team initially generated, were first culled to nine, on the basis of a number of criteria including plausibility and internal consistency. These were then further reduced to the final four which reflected variations on three fundamental assumptions:

- That current political negotiations would result in a settlement. If they did not, a non-representative government would emerge. (the *Ostrich* scenario).
- That the transition would be rapid and decisive. If not, an incapacitated government would emerge (the *Lame Duck* scenario).
- The democratic government's policies would be sustainable. If not, collapse would be inevitable (the *Icarus* scenario) while if the new government adopted sustainable policies, South Africa could achieve inclusive democracy and growth (the *Flight of the Flamingoes* scenario).

There was a compulsive logic about these positions, as illustrated below:



All of the identified 'drivers of change' beyond the fundamental assumptions or variables were mapped onto the scenarios, with each playing out differently in each scenario. These considerably embellished the strength of each position and greatly enriched the narratives, which when complete, were then circulated very widely across the country, with the Press media playing a major role in this process.

While this framework would suggest that the exercise was very rational in the logic that it pursued and thus fairly predictable in the outcomes that it achieved, the process, as far as one can gather, was very transformative, at least for those who were directly involved.

As the facilitator (Adam Kahane) later reported: *Based on my experience in strategic planning, this is one of the most meaningful and exciting scenario planning exercises ever undertaken. The project has shown that a group of experts and leaders with very different perspectives can develop a common understanding of what is going on now and what might (and should) go in the future. This seems to me to be a very positive sign for the future of the country.*

EXERCISE TEN Comments on the Mont Fleur Scenarios

Do you have any questions or comments on the Mont Fleur scenarios?

(b) Australian Business Foundation

In December 1998, the Australian Business Foundation (ABF) commissioned the Global Business Network Australia (GBNA) to help develop a set of scenarios that would address two fundamental questions:

- What are the alternative plausible scenarios for the future of business in Australia? And
- What are the most robust strategies, based on these scenarios, that maximize Australia's ability to generate wealth and jobs, to integrate into global markets and to contribute to a rising standard of living for the Australian community as a whole?

The purposes behind the exercise, as the ABF articulated them was to:

- Add more substance to our knowledge about possible futures for Australian business and to enhance our ability to create a more prosperous Australia with benefits for all;
- Dramatically expand the debate and mindsets about the best economic and industry settings needed for Australia to compete globally;
- Provide business with more knowledge to underpin their risk management and strategic planning decisions and their assessments and opportunities for new markets, technological advances and further market penetration, and
- Contribute a thoughtful and cogent business perspective to dialogues in the media and the wider community about the kind of society Australians want to create as they approach a new century and a new millennium.

The year 2015 was chosen as the focus for the alternative plausible pictures of the future, and a team of six consultants/researchers assisted by two scenario story writers were involved in the nine-month process. The aim here was to encourage as many Australians as possible, and especially those involved in business, to engage intellectually with possibilities for the future of their country, as a context for developing responses that might help to shape that future. The project was NOT undertaken with the aim of removing doubt, nor of predicting the future, nor even of wanting to 'get it right'. Rather it was designed to help those involved with business in Australia – governments, investors, consumers, the young, educationalists, families and employees – to think more deeply about the role of business in Australia's future and to create sustainable strategies for business and social success, contingent upon the type of world that Australia might plausibly be facing in the year 2015.

Developing the scenarios, which were many months in the making, involved

- Sampling opinions and current literature on the likely drivers of change and critical uncertainties for business in Australia;
- Desk research, literature reviews and media monitoring;
- Interviews with experts, and other 'remarkable people' for their insights into the future;
- Analysis and commentary from a range of business, social and educational specialists, including GBNA's international colleagues;
- Three scenario-building workshops involving over 40 individuals from diverse walks of life and areas of interest;
- A series of interviews to 'test run' and verify the emerging scenarios; and
- The creation of a series vignettes that were illustrative of the four scenarios that were generated.

One of the central aspects of the approach adopted was the identification and elaboration of ‘drivers of change’, both for Australia and globally. Within each of these a number of hot topics were identified, which were in the news and came into daily conversation. Some of these were common to all scenarios, and would either be the same in each scenario (key pre-determined elements) or would play out differently (key variables). The globalisation of trade was accepted as one such pre-determined element as was the perception that Australia as a trading nation was a taker rather than a shaper.

Driver of change: Globalisation of trade and commerce

Hot topics: world commodity prices, China and its changing role in world trade, leadership in business, ethics and the culture of transparency, business education, immigration and migration, the regional situation in the Asia Pacific, exchange rates and world stock markets, and the emergence, or otherwise, of fundamentalism of all kinds: economic, political and religious.

Driver of change: Emergence of the knowledge economy

Hot topics: knowledge and the ‘new’ economy, business and competitive intelligence, and disaggregation and decentralization of business units.

Driver of change: Growth in on-line technology

Hot topics: innovation in information and communication technology

Driver of change: New consumerism

Hot topics: growth of e-commerce especially for consumer retailing and disintermediated trading in insurance, banking and finance.

Driver of change: Changes in social fabric and values

Hot topics: environmental uncertainties, and the response of the people, changing employment patterns and attitudes to jobs, social stability and its link to uncertainty and change, and inflation and unemployment.

Driver of change: Advances in science and technology

Hot topics: biotechnology, replacement of fossil fuels.

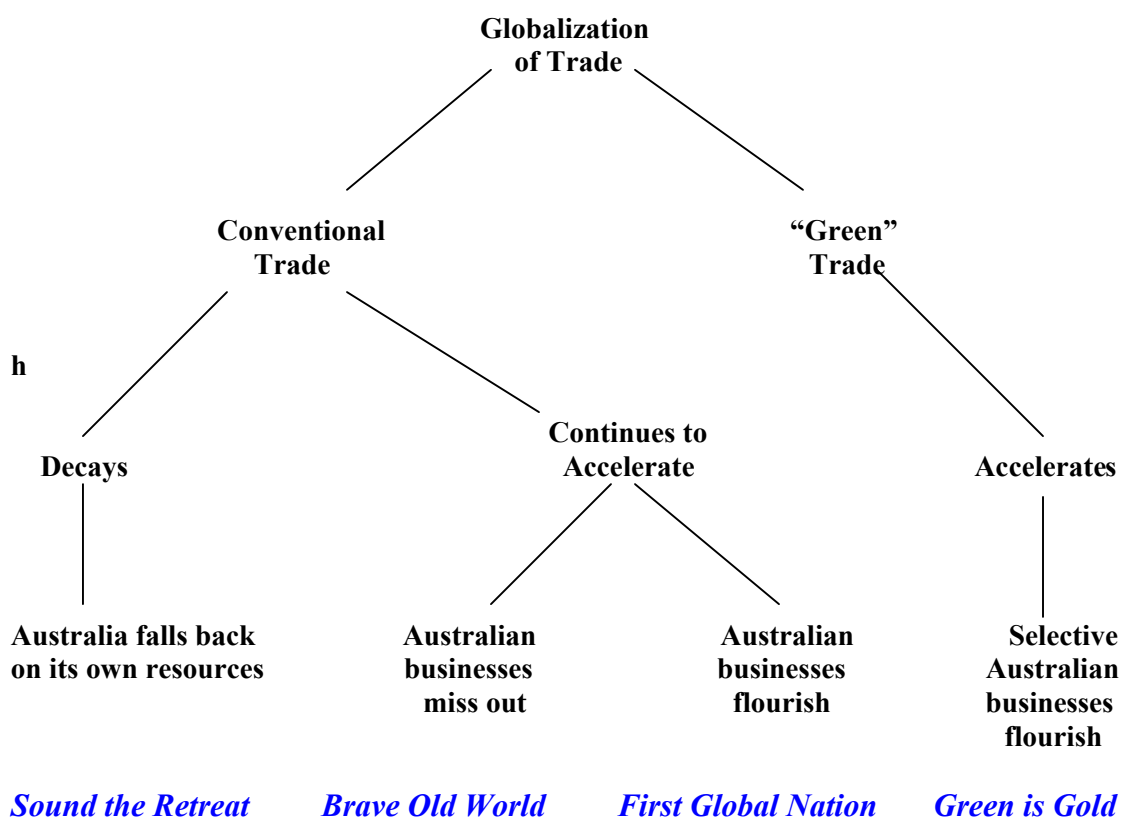
Following consideration of the wide range of trends, opinions, ‘forces’ and uncertainties around these and other ‘drivers of changes’ and ‘hot topics, four scenarios emerged that were based on three fundamental assumptions:

- That the type of trade that developed in Australia by 2015 was either ‘Green’ or Conventional. If the former occurred, if trade accelerated, and Australia continued to adapt well, then selective Australian businesses would flourish. (the *Green is Gold* scenario [Australia’s national sporting colours!])
- If conventional trade characterized future developments, but trade decayed, Australia would fall back on its traditional resources and primary production mind-set with Australian businesses, by and large, becoming victims with but a few flourishing. (the *Beat the Retreat* scenario)

- If conventional trade characterized future developments, and trade accelerated, Australia could either adapt well, in which case businesses in general would flourish (the *First Global Nation* scenario), or not adapt well, in which case Australian businesses would miss out (the *Brave Old World* scenario).

All of the identified ‘drivers of change’ beyond the fundamental assumptions or variables were mapped onto the scenarios, with each playing out differently in each scenario. As with the Mont Fleur scenarios, these considerably embellished the strength of each position and greatly enriched the narratives.

The compulsive logic about the positions associated with the three fundamental assumptions is illustrated below in relation to one of the key drivers identified: the globalization of trade.

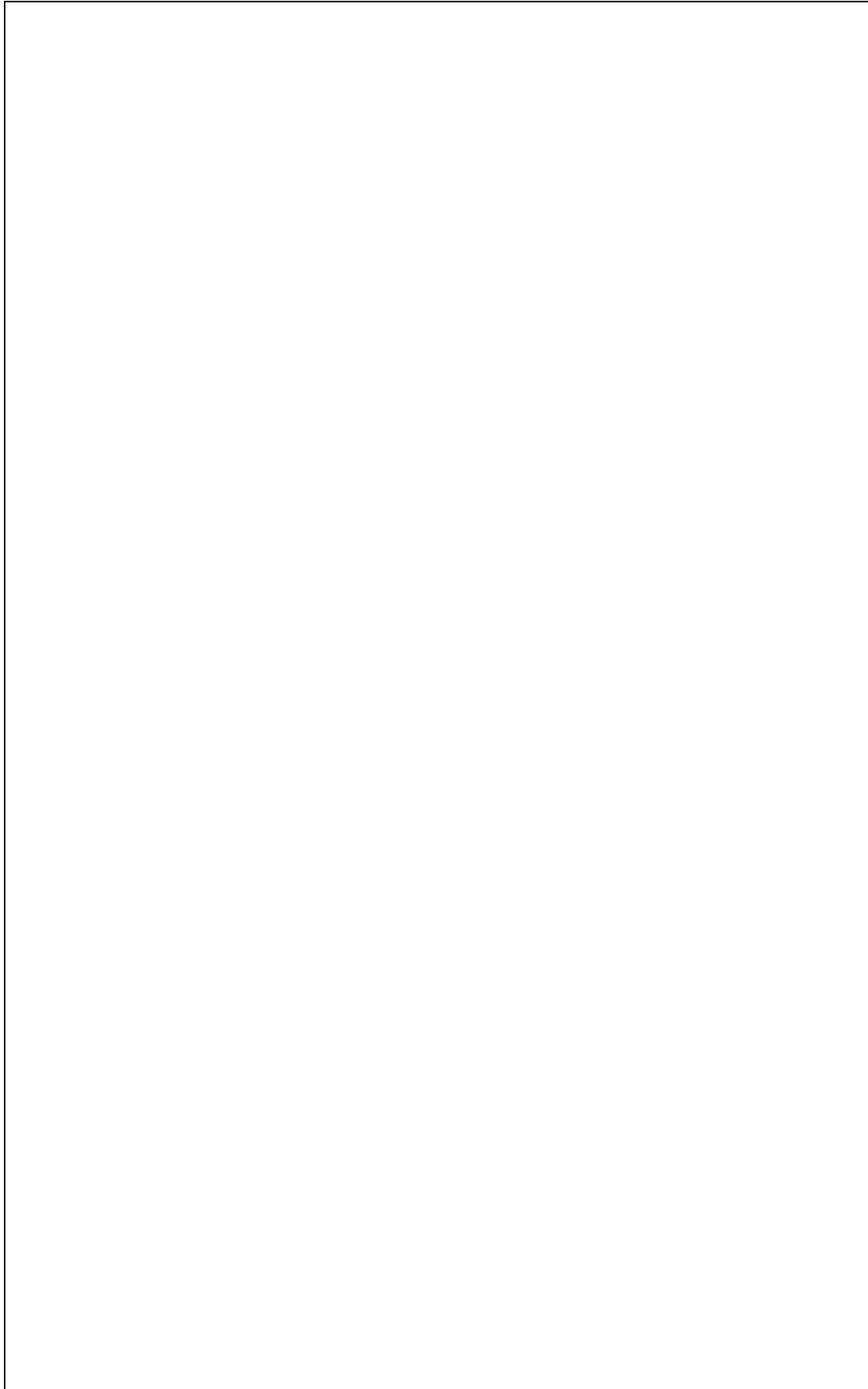


Since their release first in September 1999, these scenarios have also enjoyed wide promulgation, and were published as complete stories in January 2000. As the leader (Oliver Freeman) of the GBNA consultant/researcher/writer team commented: *“This has been a team effort in defining the scope of the project, stimulating divergence on the major issues and facilitating convergence in the scenarios themselves”*.

Many dozens of scenario exercises such as these have conducted over the past thirty years or so: Some, like the Mont Fleur experience, have focused on entire nations, others, like the ABF effort, have focused on one aspect of a nations endeavours. Others again have been confined to single industries, or organizations or communities.

EXERCISE ELEVEN Comments on the ABF scenarios

Do you have any questions or comments on the ABF scenarios?



Preparing Scenario Presentations

And so back to the future!!

Your task over lunch, as a group (as a *perceiving system*), is to translate the information and opinions that you have been gathering and displaying on the hexagraphs, into formal scenarios. The aim is to produce a story of a plausible future or two with a logic that is internally consistent, and embracing the major assumptions and outcomes that have ‘emerged’ from your systemic ‘rich pictures’. It is always useful to give scenarios a name, and imperative that you develop a brief narrative that is illustrative of the points that you want to make. You might like to split the group into two with each working on one scenario, with occasional cross- referencing to check consistencies etc.

EXERCISE TWELVE Notes on Scenario Presentations

Notes on the Scenario

Preparing Scenario Presentations Notes contd

Time out for reflections again:

EXERCISE THIRTEEN– Reflections-in-action

Recalling the functioning of your group so far: What have you been doing? Have you been doing this in a manner that reflects the functioning of a perceiving system?

Reliving the experience. What has it been like? How are you feeling? Do you feel that you are being systemic?

Re-interpreting the experience: What meaning are you attaching to what is happening and what is being said? How do you think that this is affecting you? How are you interpreting the functioning of your perceiving system?

Responding to the re-interpretation: Is there anything that you should be doing in response to what you are learning from what you are perceiving is happening? What is it? Why is this appropriate?

Commentary and Critique

As you listen to the presentations from others, you might like to record some observations in the spirit of comments or critique. Look especially for novelty, consistency, plausibility, and logic.

EXERCISE FOURTEEN Commentary and Critique***Commentary and Critique***

Commentary and Critique

Systemics, Scenarios and Strategies.

The last steps in the process of systemically linking scenarios with strategies, involves breaking up our 'perceiving sub-systems' and returning to being individuals again.

The process of scenario development is normally achieved within particular organizations or communities. The suprasystemic scenarios will be generated and debated 'within house' with a particular organisational or community focus that represents previously identified key strategic issues that are being faced within that organisational or community 'system'.

As *systemists* of course, we now recognise that these 'system' issues will invariably change as the process of scenario development proceeds for as we have been at considerable lengths to emphasise, the perceived difference between what constitutes the system and what the suprasystem, is a matter of the judgement of the perceiving subsystem.

In the normal course of events, even as the scenario process focuses on the nature of future suprasystems, it will be impossible to avoid thinking about the nature of the systems that will be influenced by such changes.

The concept of the system being the organization or community as some sort of 'perceivable whole entity' will typically give way to other, emergent ideas about systems, in far more abstract terms.

These might be the system as a network of conversations, or a bounded set of human activities, or a process, or a connected set of issues.

Being systemic is much more about the way issues in organisations and communities are approached than it is about the organisations and communities themselves.

In the exercise today, it has not been possible to select issues of concern to all of you, nor to illustrate the vital inter-connections between the issues of the system and the nature of the suprasystem. The heterogeneous nature of the participant mix denies any chance of agreement (experience has shown that in 'exposure' exercises of this nature, a huge amount of time and emotional energy can be generally expended, and usually to no avail, in the search for an issue of common concern!!).

The exercise now is to return to the issue that you identified as an individual at the start of the day and explore some of the strategic implications that are involved when that issue is investigated from the context of one or more of the scenarios that you have worked on (or even heard from others) today.

The focus of the strategies will be very contingent on the nature of the organisation or community that provided the frame for your own observations. The strategic domains faced by those within a commercial context, like market creation and access, creating business opportunities including takeovers, upgrading technologies and investing in innovations or in 'human resource' development, for instance, bear little in common with those domains of interest to those within an educational institution, a non-government health or welfare agency, or a remote rural community.

The common denominator is the notion that strategies are those processes by which the organization (the system) attempts to co-adapt with the environments in which it must operate (its suprasystem); as perceived, of course, by those doing the perceiving (whatever perceiving subsystems are in place). Thus we can distinguish between (a) those *external* strategies that are designed to allow the organizational system to both respond to environmental suprasystem influences, and to influence it in ways that might be possible (and desirable), and (b) those internal strategies that are designed to organize the system in such a way so that it can indeed be co-adaptive.

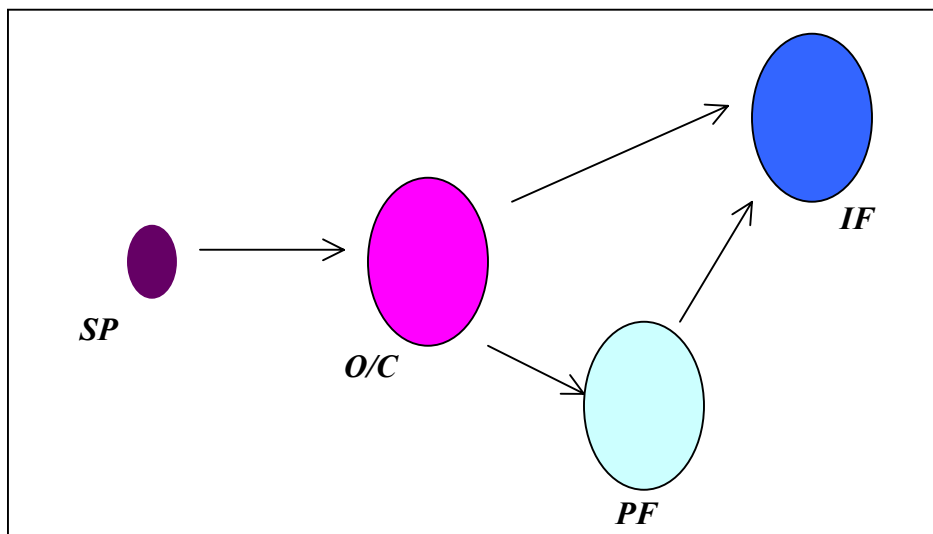
In both cases, *external* and *internal*, there is the need to appreciate and incorporate into the process, the whole range of potential impacts that any change might have - both negative as well as positive – across all three systemic dimensions! And in this systemic spirit, these impacts need to be as concerned with ethical, aesthetic, cultural, ecological, and even spiritual outcomes, as well as the traditional economic, social, political, and technical ones. Furthermore, these matters need to involve a wide range of stakeholders that extend beyond the ‘customers’ or ‘clients’, the ‘owners’, and the ‘actors’ needed for the change process, to embrace the community at large – including those as yet unborn. Indeed, there is a strong moral imperative that is gaining significant popular support across the entire globe, that the stakeholding domain must include the ecology of the entire planet.

The increasing demands for accountability to be based on the ‘triple bottom line’ of economic, social and ecological outcomes, is an indicator that that situation is not a fickle one.

This picture of *systemic strategic development* is clearly far from the conventional view of strategic development (or the more restrictive process of planning within it). In the latter case, the process is invariably accepted as one based on five fundamental activities:

- ***Investigating*** the current state of the organisation or community with respect to the mission, goals and objectives it has presently set itself;
- ***Envisioning*** where those of influence within the organisation or community would ideally like it to be in the future;
- ***Articulating*** these visions into new missions and goals and objectives to be achieved;
- ***Extrapolating*** to where the organisation or community is more likely to be, given present trends and history of adaptation to change; and
- ***Focusing*** on ways by which the difference between the ‘ideal’ and the ‘probable’ might be reduced!

We might illustrate the basic conventional approach in the following way:



The Strategic Planner *SP* (or strategic planning team) first investigates the present state of the Organisation/Community *O/C* as if he/she/it were an independent observer. The next step is for the Ideal Future *IF* to be envisioned. This is followed by an extrapolation of the Probable Future *PF* based on present or estimated trends.

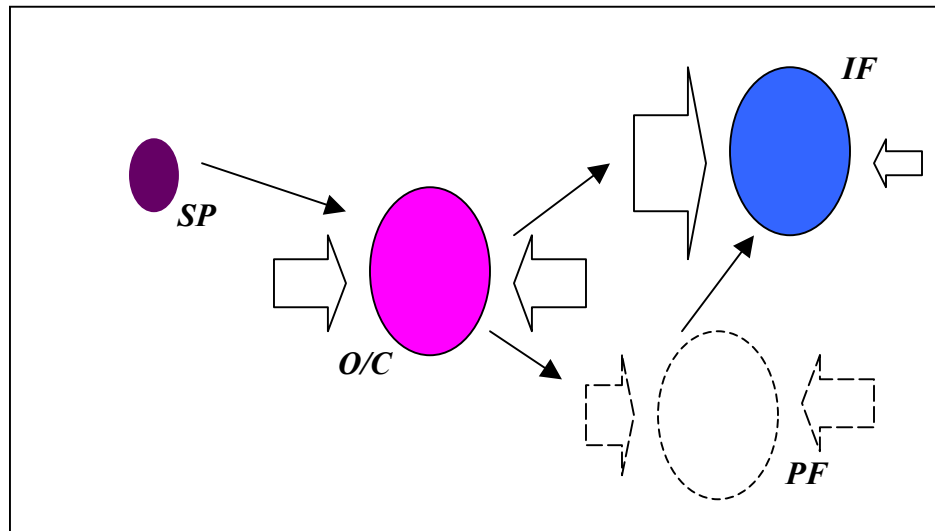
The function of strategic planning here is to produce plans that, when enacted, attempt to minimise the differences between *IF* and *PF*.

The process is linear, ‘enclosed’ and non-systemic in that:

- (a) it ignores or at least fails to appreciate the significance of the impact of the environmental suprasystem on the process of organisational and community change and development;
- (b) it assumes that the organisation or community is a ‘real’ entity whose developmental directions can be both determined and achieved by the actions of a few who can manage the workings of the whole;
- (c) it fails to appreciate that the ‘observing’ strategic planner (the perceiving subsystem) can never be disconnected from the ‘observed’ organisation/community (the perceived system) nor its environments (the perceived suprasystem);
- (d) it fails to appreciate the concept of emergence – of unpredicted and indeed unpredictable outcomes that arise through inter-relationships and inter-connectivities.

While a surprising amount of strategic planning still proceeds along these lines, it is fair to say that *environmental consciousness*, in its broadest sense, is continually growing in both organizational and community contexts, and is being embraced increasingly by strategic planners. All too often however, this is being done in a manner that does not fundamentally change the logic behind the process as it just been presented. The ‘mind-set’ or worldview of planners and of those who employ them, all too frequently, remains linear. The “I” dimension not only stays the same, but does not itself appreciate that it is doing so.

To the linear thinker/planner who is conscious of ‘environmental impacts’, the environment becomes a set of ‘forces out there’ that can either help or hinder the progress towards the ideal future! Strategic planning under these circumstances, sees the planner planning strategies that are aimed at (a) reinforcing the influence of those forces (the facilitating forces) that are seen to help strategic developmental directions, and (b) reducing the influence of those that hinder (the constraining forces).



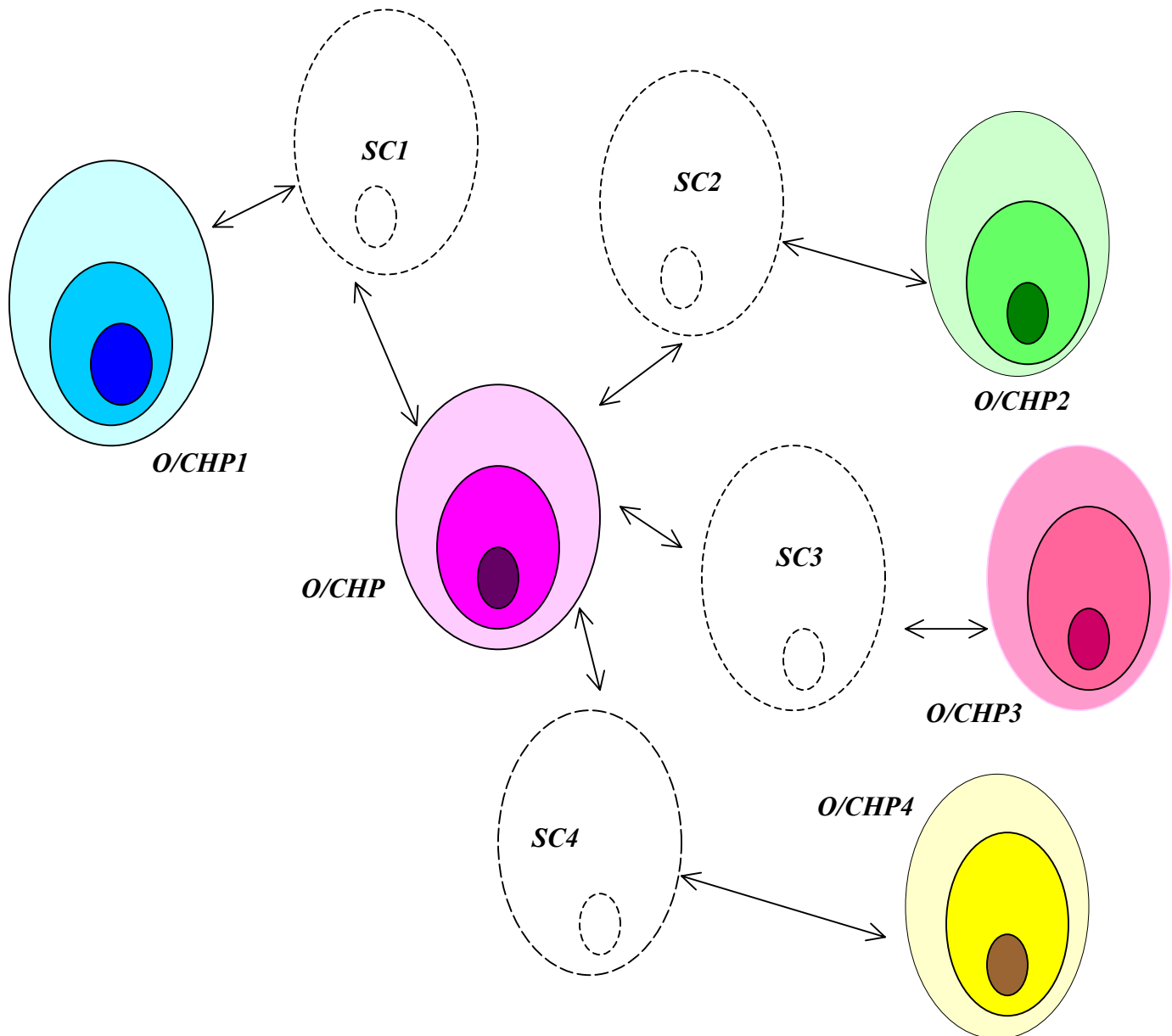
The ‘open’ dynamic systemic alternative that we have been pursuing here, contrasts strongly with the linear approaches just illustrated, in a number of ways. Among these is the fact that strategic development is seen as a continuous process of learning from and for the future, rather than a sporadic process of the planning of it.

The organisation/community as a whole entity, is not the centre of the focus of the process, nor are ideal and probable futures envisioned for it. Rather than particular strategic planners being asked to ‘observe’ the organisation/community (from ‘outside’ it) the object is to get as many learning/perceiving subsystems as possible engaged in learning about (and from) plausible future states of the suprasystem in which they might have to collectively operate.

Rather than accepting their organisation or community as an entire system to be developed as a whole, each learning group (subsystem) approaches the future from the perspective of the issues that are of concern to it, within the context of the whole!!

There is not one idealized future, envisioned by somebody or somebodies within the organisation or community, and which reflects the ‘target’ towards, it is felt, the ‘system’ should be directed’. Nor is there any attempt to think about the present trajectory of the ‘system’ and how that might translate into the probable future state of the ‘system’. Indeed in the first instance there is no thought given to the system *per se* at all. Initial thoughts are on plausible states of the environments of the future – potential scenarios for the suprasystem, as it were – as perceived by folk concerned about that within the context of particular issues of the organisation or community to which they feel some connection. Secondary thoughts are on the affects that the ways of perceiving might be having the scenario perceptions being generated, and on how these might be ‘liberated. Next the system itself is ‘created’ and described by those

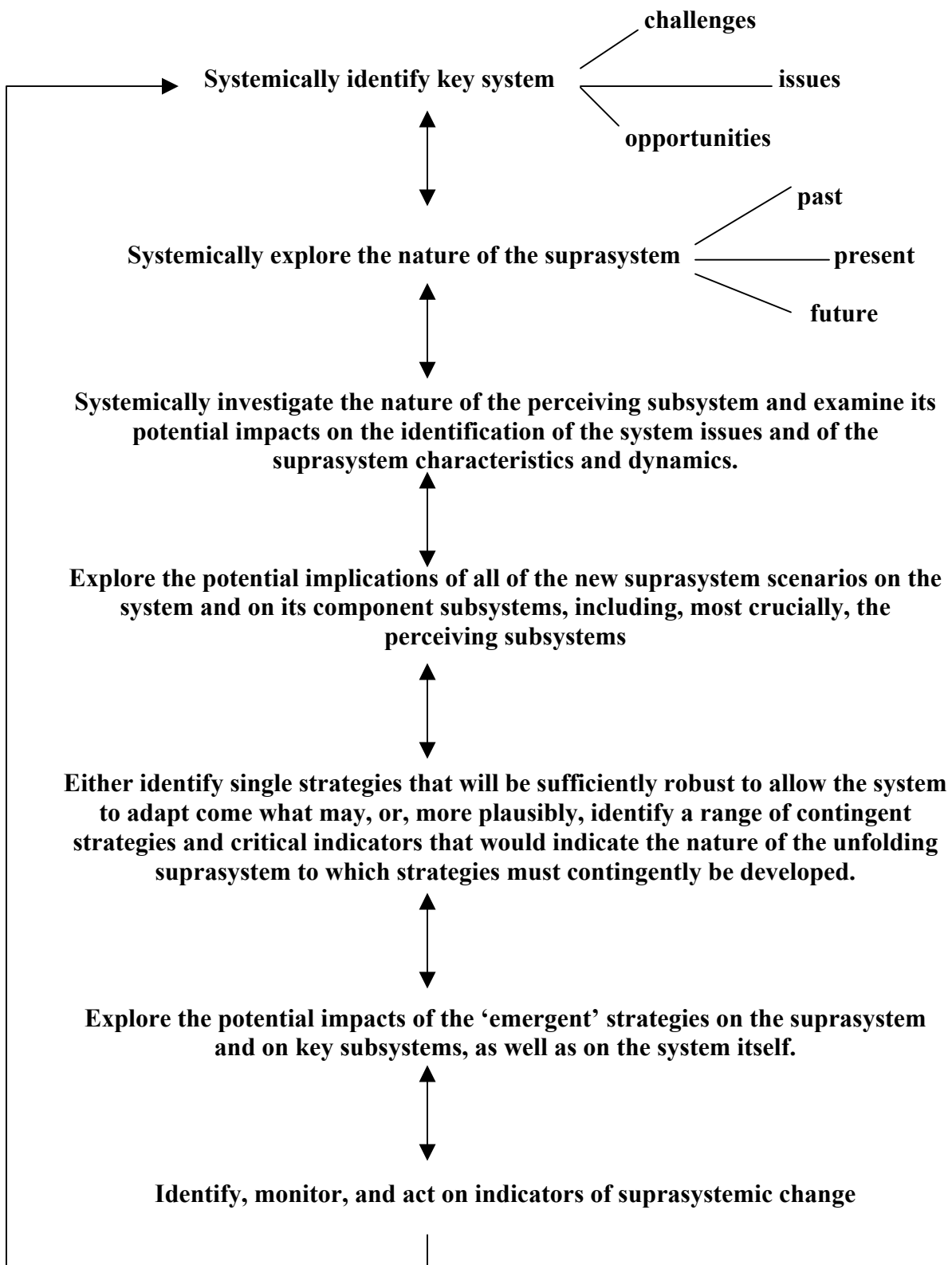
who are concerned for the strategic development of the organization as a whole (the perceiving sub-systems). Then thought is given to the processes and strategies that need to be put in place for the organizational system to adapt or co-adapt with its ever-changing environment (dynamic suprasystem). And finally, the likely impacts are assessed of those strategies on the organizational system itself, on the environment in which it operates, and on the nature of the relationships between the two, as comprehensively as possible



In abstract terms, the perceiving subsystems within the organisation/community holon **O/CHP** identify the issues that represent strategic matters of relevance to the future of the 'system', which is held to be a collective of learning/acting individuals who are interconnected through the conversations they hold, values that they share, and actions that they take.

This is followed by their generation of a number of potential and plausible future scenarios of the suprasystem **SC1-SC4**. Strategic development now becomes the

process of designing strategies that should allow the system to co-adapt with each of the perceived suprasystem scenarios. Note that the process is continual, with an acceptance of the inherently dynamic nature of the suprasystem, system and perceiving subsystems. It is perforce a participative process across a spectrum of stakeholders, and it is concerned with the whole systemic gamut of the impacts of change.



And after all that, the whole process starts over again! Strategic development is a continuous process of the quest for improvements.

EXERCISE FIFTEEN Revisiting Individual Strategic Challenges

Revisiting Individual Strategic Challenges: exploring Strategic Implications within Scenario Contexts.

**How would you re-state your issue in strategic co-adaptation terms?
In other words, how could you rephrase your issue in terms of the challenges it presents to the interactions between the organisation/community and the environment in which it might have to operate in the future?**

How relevant is your issue to your organisation or community as a whole, or how representative is it of the strategic issues that it faces as a whole?

How does it relate to the values that (a) you hold and (b) to those that you believe are values that are collectively held within the organisation or community?

**Revisiting Individual Strategic Challenges: exploring Strategic Implications
within Scenario Contexts**

**What implications do some of the scenarios that you have worked on or heard
about today, potentially have on your issue as it relates to the future of your
organisation or community?**

What Strategic Challenges do you think your issue represents?

What would you now suggest be done about the matter?

EXERCISE SIXTEEN Strategic Conversations**Strategic Conversations**

Briefly discuss your observations with one person with whom you have not yet worked today.

Summary and Conclusions -

This is where we have been over the day: You are invited to make final comments as we work through them *seriatum*.

- **Hopes and expectations revisited**
- ***“The Gentle Art of Re-Perceiving”*** –
- **Photolanguage – Systems Images**
- **Identifying Systemic Principles: *“The Holon”***
- **Reflections**
- ***“Dreams for the Future”***
- ***“Headline News - Scenario Logics”***
- **(I)NSPECTing the past**
- ***Suprasystem Scenarios* – INSPECTing the future Questioning Assumptions**
- ***“Two Case Studies”***
- **Preparing Scenario Presentations**
- **Scenario Presentations**
- **Commentary and Critique**
- ***“Systemics, Scenarios and Strategies”***
- **Revisiting Individual Strategic Challenges**
- **Strategic Conversations - Summary and Conclusions**

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Appendix Two

THE COMMUNITY CHALLENGE: THE LEARNING RESPONSE

Richard Bawden¹²

(A presentation made to the Community Development Society Annual Conference
Athens Georgia July 1997)

Genesis

This is a story of the models that came to inform the strategic decisions collectively taken, almost twenty years ago now, by a small group of educators within a small agricultural polytechnic located on the urban/rural fringe of Australia's largest city. It is a story which arises out of the integrated thoughts and actions of an academic community, which, tired of its³ marginal status, decided in the late 1970s, to profoundly and concurrently transform itself as a School of Agriculture in three fundamental ways: (a) to change its own focus from production agriculture to responsible rural development, (b) to change its own emphasis from a teaching approach based on courses to one of learning based on projects, and (c) to change its own prevailing reductionist paradigm to embrace an holistic one. The mission became one of helping people in rural communities across the state, to learn their way forward to better futures, in the face of the immensely complex, dynamic, and slowly degrading environments, Socio-economic, politico-cultural and bio-physical, in which they increasingly recognised they were deeply embedded. The intent would thus become that of helping people to see their worlds differently as a prelude for doing things differently - essentially more systemically. The context for this grand enterprise is captured in the aphorism "if we always see how we've always seen, we'll always be who we've always been"! Changing the way we collectively construe ourselves means collectively changing the way we think about ourselves, to lead in turn, to changing the way we collectively act.

In this manner, we, as faculty at Hawkesbury Agricultural College, committed ourselves to helping in the facilitation of the development of learning communities across rural Australia, through the direct involvement of our students and ourselves, in collaborative learning projects with members of rural families and communities. As faculty and students alike, we would learn how to become a learning community of scholar practitioners, through our active participation in other emerging learning communities, and critical reflection upon those engagements.

Together we would learn how to see the world differently, and in the process, discover just how difficult a transformation this is, for individuals and the community both.

Many of the details of the journey which has ensued to date at Hawkesbury following those essential decisions, including both theoretical and practical details of the evolution of the processes of curriculum reform, of community outreach, of research, and of the organisation itself, have already been told elsewhere (cf Bawden et al 1984, Bawden 1992, Bawden and Packham 1993). What has not yet been clearly described or explained however, are recent developments in the model of the learning process which is central to the whole endeavour of what can now be referred to as, systemic development. This is the praxis involved in bringing abstract 'systems ideas' to bear to help inform actions to deal with events which are being experienced in the concrete world; and vice-versa, with systems ideas being generated out of the process of critical reflections on both the events themselves, and the actions which are being used to deal with them, which includes the process itself - the

¹ Visiting University Distinguished Professor, Michigan State University,

rdvisit2@msu.edu

systemic development of systemic development, if you will, in which the metaphor of the community as a critical learning system is privileged.

This presentation provides an opportunity then not just to give an update on the model of critical learning systems, but more importantly, to illustrate the manner by which that model is being both generated and used in practice in the creation of learning communities.

A Word about Systems

It is important to emphasise here that the word system as it is used in the present context, has a particular conceptual meaning, which is distinct from the rather woolly way that the word is often used in everyday conversation. Thus in contrast to the loose metaphoric images which are conjured up with talk of transport systems or information systems or health systems, critical learning systems reflect the notion of formal entities with particular structures and properties. To the systems theorist, a system is an organised, coherent, whole entity, which has, or can be assumed to have, properties which are unique to it as a whole entity. More formally stated “a system is a group of interacting components (subsystems) that conserves some identifiable set of relations with the sum of the components plus their relations (i.e., the system itself) conserving some identifiable set of relations to other entities (including other systems) (Laszlo and Laszlo 1997). In other words, when the component parts of a system interact together within the boundary of that system, the process results in the emergence of properties which are different from the mere additive effects of those parts, and unique to that particular system - the system is different from the sum of its parts. Moreover, as each component part of a system is also a ‘lower order’ (sub)system itself, and each system is, in turn, a subsystem of a ‘higher order’ (supra)system, unique and quite unpredictable properties emerge at a number of different levels of order within what is envisaged as a hierarchy of systems embedded within other systems. When we talk of the environment of a system, we are actually talking of a higher order system in which it is embedded. Systems are systems within systems within systems etc.

It also follows from this logic that each subsystem within a system must be different from all of the others in that system; so different indeed, that a ‘tension of difference’ exists between them. Subsystems not only influence each other through their interactions, but it is these interactions which create the whole. The whole is different from the sum of its parts because of what von Bertalanffy (1968) termed “the glorious unity of opposites”.

The notion of wholeness through ‘tensions of difference’ is absolutely central to the usefulness of the critical learning systems approach to community development.

From this it is clear that each subsystem must also be significantly different from the system as whole, yet have the potential to influence and be influenced by it. As Ackoff (1981) sees this: each subsystem has an effect on the functioning of the whole, while each is also affected by at least one other subsystem within the whole. These principles of diversity and what is termed ‘requisite variety’, are also central to the concept of critical learning systems. Finally, systems can only retain their coherence within and across these embedded hierarchies through cybernetic networks of feedback communication and control. The stability of systems is maintained through what is termed ‘negative’ (or deviation attenuating) feedback, while ‘positive’ (or deviation amplifying) feedback tends to provoke system into unstable states. Typically these two types of forces are working concurrently; adding further to the ‘tensions of difference’. Under certain circumstances, these tensions reach such a level that the whole system suddenly succumbs. As a consequence, it becomes destabilised and for a while acts quite ‘chaotically’. This phase is often followed by an equally sudden re-stabilisation in a new, and frequently more complex form (Gleick 1988). These ‘chaotic’ transformations in organisation are also associated with emergent properties which are therefore also quite unpredictable from knowledge about the previous state of the system before its chaotic change.

Such ‘higher order’ re-stabilisation does not always occur of course, in which case the system might either revert to its previous position or collapse altogether, following a chaotic episode.

From this discussion it is apparent that there are two sources of emergence in systems dynamics: Firstly between different levels within a ‘stable’ hierarchy (Figure 1a) and secondly, following a chaotic reorganisation to a higher order of complexity (Figure 1b).

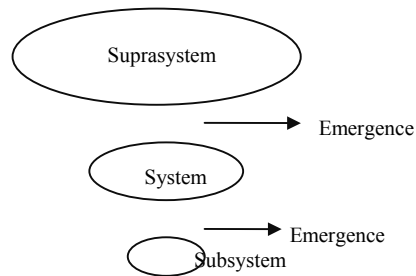


Figure 1a Emergence Between Levels of a Stable Systems Hierarchy

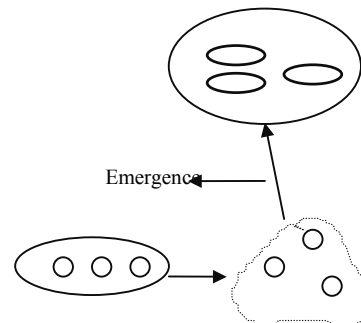


Figure 1b Emergence as a Function of Chaotic Disorganisation.

While these theories have been constructed from studies of physical systems, strong parallels can also be drawn with the behaviour of so-called social systems, whether they are viewed as such either ‘in actuality’ or metaphorically. In any event, all of these principles are of considerable significance to the concept and indeed model of a critical learning system, and they are also crucial elements in the notion of any learning community which is viewed from the perspective of systemic development. To view the world systemically is to view it from the perspective of systems, just outlined. Systemic worldviews are a prerequisite for treating the world in a systemic (holistic) way, and the ability to adopt such worldviews and transpose them into practice is not easy, as twenty years of experience at Hawkesbury has confirmed.

A Justification for Critical Learning Systems: The Community Challenge

A primary context for the work on critical learning systems at Hawkesbury, has been the growing concern that prevailing models of non-systemic development are significantly inadequate in the face of the dynamics, complexities and uncertainties of contemporary life. Early concerns about these models now find justification in the considerable empirical evidence of such matters as the increasing maldistribution of wealth (George and Sabelli 1994), the gross degradation of the bio-physical environment (Brown 1989), the loss of both cultural and biological diversity (Milbraith 1989), and a host of other factors reflecting the inadequacies of the prevailing theoretical paradigm which is characterised by “reductionism, determinism and autonomous individualism, all undergirded by a stringent materialism” (Vitz 1996). The force of these collective worldviews has been such as to contribute fundamentally to the often bemoaned ‘loss of community’ (Fukuyama 1995), with the lack of trust that has grown from this situation, now acting as a serious impediment to its restoration.

This lack of trust is even beginning to extend to the way development ‘is done’. Worse, we are in grave danger of falling victim to our own development ‘successes’ achieved through the technoscientific applications which reflect these prevailing worldviews. These have had widespread negative impacts as well as positive ones, and yet the process of development based on them, continues to remain relatively free from critique. We must now have a new focus, and there are those who believe that a new era is dawning: As the sociologist Ulrich Beck (1992) reminds us, “we are therefore concerned no longer exclusively with making nature useful, or with releasing mankind from traditional constraints, but also and essentially with problems resulting from techno-economic development itself”. “Modernisation” he claims “is becoming *reflexive*; it is becoming its own theme”. Technoscience has got to learn how to confront itself in a world where the risks flowing from technology-in-action have become global, and paradoxically, only knowable through the very same process through which they were generated. To be self-confrontational however, in the

sense that Beck suggests, we will need to approach matters very differently. As Bruce Wilshire (1990) has stated, “we have powerful means of altering the earth and ourselves, but only a fix on goodness could give our means their aim, support and meaning”. All of the major problematic issues raised above have ethical and aesthetic dimensions as well as instrumental ones, and the need for ‘fixes on goodness’, or moral judgements, thus becomes an imperative, in the face of a fundamental paradigmatic inadequacy: “Moral judgement has been eliminated from our concepts of rationality as far as they are actually built into existent scientific and systems paradigms” (Ulrich 1988).

The challenge then is to re-foster what might be a lost competency for what Edgar Dunn called ‘social learning’, and a second aspect of reflexivity is indicated here as: “the process of social learning has not understood itself sufficiently well to rationalise itself as an efficient process with a coherent purpose” (Dunn 1971). The quest for systemic development is essentially a learning process, which appreciates and accommodates its own complexity, in addition to that of the main problematical matters (of development) to hand. The central feature of the approach is therefore the design, establishment, maintenance and development of self-referential, or critical, learning systems.

In the terms of our critical learning system approach then, we need to facilitate the transformation of communities into learning systems which are sufficiently self-referential that they will be able to learn about their own learning.

Meaning as an Emergent Property

Important cues for the basic form and process of the Hawkesbury critical learning systems model are provided by the work of Victor Frankl (1963), Gregory Bateson (1978), and C. West Churchman (1971), with ideas from Aristotle, the medieval cleric St. Bonaventure, and Ken Wilber (1990) also as foundational.

The central notion here is that *meaning* is a property which is emergent in both individuals and communities, through the interactions of different ‘ways of knowing’.

As we see it at Hawkesbury, meaning emerges as the result of ‘interactions’ between the process of *experiential learning* on the one hand, and what we have termed *inspirational learning* on the other with these processes in turn involving the concrete world of experience, the spiritual world of insights, and the abstract world of concepts at the interface (Figure 2).

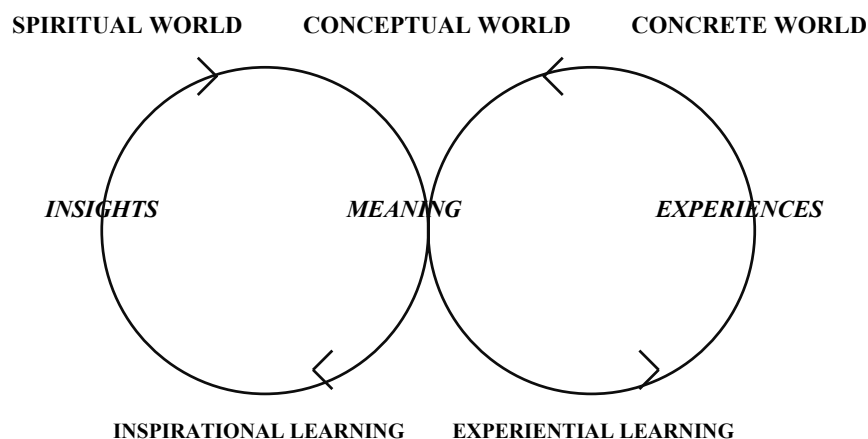


Figure 2 Meaning as an Emergent Property of Two Ways of Learning

These ideas of the *spiritual*, the *conceptual* and the *concrete* are not that far removed from those mooted by Bonaventura, who, as Ken Wilber (1990) records, distinguished between an *eye of contemplation* (“by which we rise to a knowledge of transcendent realities), an *eye of reason* (“by which we obtain a knowledge of philosophy, logic and the mind itself”),

and an *eye of flesh* (“by which we perceive the external world of space, time, and objects”). Wilber himself distinguishes between transcendelia, intelligibilia and sensibilia (Wilber 1990).

A key concept from Hawkesbury, is that this process can be re-presented in systems terms: Thus the experiential learning process can be envisaged as one subsystem within a learning system of two subsystems, with inspirational learning as the second. Each learning subsystem is itself a system with its own subsystems, and the model can be further expanded to illustrate the four sub(sub)systems in each (sub)system in a learning system, as illustrated in Figure 3.

meaning

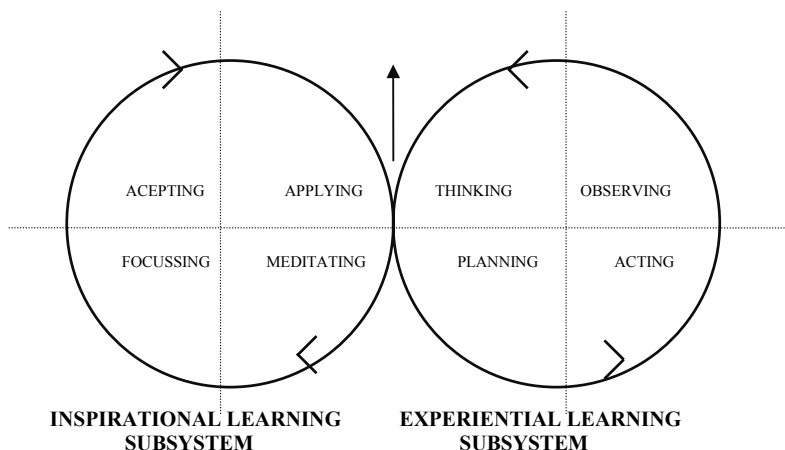


Figure 3 The Sub(sub)systems of a Learning System for Generating Meaning for Actions

As this model illustrates, a dynamic is established between the processes of experiential and inspirational learning, through which concepts derived from the transformation of experience are qualified by insights derived from inspirational learning in the creation of meaning as a prerequisite for responsible, systemic action.

The Experiential SubSystem

To understand the dynamics of such a system, and how it might be used as a model in practice, we need to explore these processes in more detail, and to do this, we turn first to the process of experiential learning, and to the work of David Kolb in particular.

Kolb (1984) suggests that learning is the creation of knowledge through the transformation of experience. He posits that the process occurs as a result of our need to reconcile two dialectic tensions that we feel as a result of two different ways through which we ‘grasp’ reality (through *concrete experience* or through *abstract conceptualisation*), and two ways through which we transform what we have grasped (through *reflective observation* or through *active experimentation*). He expresses these two dialectics as polar positions on a matrix, which he then converts into a cycle to illustrate the dynamics of the dialectic resolution (Figure 4).

REFLECTIVE
OBSERVATIONS

ABSTRACT

ACTIVE
EXPERIMENTATIONS

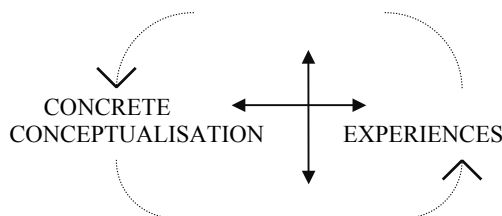


Figure 4 An Experiential Learning ‘Cycle’

Kolb went on to argue that the complete experiential learning process thus involves the learner, in resolving the dialectical tensions between these two pairs of polar opposites, in

four basic activities which he termed *divergence*, *assimilation*, *convergence* and *accommodation* respectively.

- *divergence* involves the learner moving from concrete experiences to reflective observations
- *assimilation* from reflective observations to abstract conceptualisations
- *convergence* from abstract conceptualisation to active experimentations, and
- *accommodation* from active experimentations to concrete experiences

The essence of these four activities can be captured with the notions of perceiving as the act of divergence, understanding as assimilation, planning as convergence, and acting as accommodation (Figure 5).

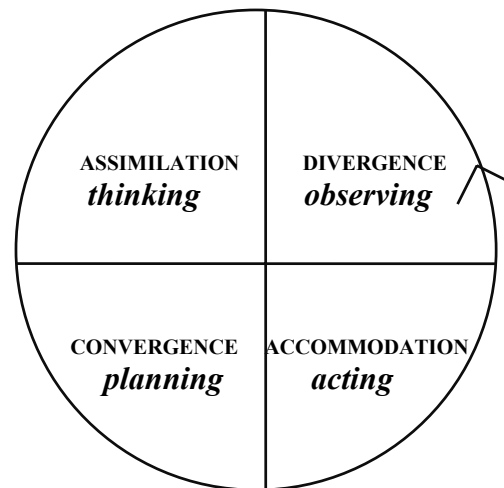


Figure 5 The Four Basic Activities in an Experiential Learning Process

Following Kolb, but using the language we have introduced, the process of experiential learning can be described in a highly simplified manner, in the following terms: The process of learning starts with the immersion of the learner in a concrete experience from which as many observations as possible are gathered and perceptions recorded. This stage of information gathering is then followed by a phase of thinking, during which attempts are made to understand what has been experienced - and sense is made out what has been sensed! This stage is followed, in turn, with plans for action based on the understanding achieved. Finally, the planned action is taken, and as this changes the situation, the whole process is repeated, and more knowledge created.

Experiential learning is thus a recurrent process of adaptation to change, based on a rigorous process of transformation.

In reality of course, this learning process is far less systematic than is being inferred here. Rarely do we conduct our learning with such discipline and rigour, and nor does all of learning start with 'immersion in a concrete experience'. Much of our learning (and virtually all of our formal education!) starts at the opposite pole, as we are immersed not in concrete realities but in preformed abstract conceptualisation's. Rarely do we therefore get the chance to test those ideas back in the concrete world, nor plan or take action as a consequence of what we have learned (save perhaps to feedback our understanding to the 'teacher' for a grading of our ability to understand, or at least remember).

The first step towards the creation of a learning community - a critical learning system - is therefore the facilitation of consciousness of the process of learning itself: Learning to learn about learning. And this need for what has been termed meta-learning

(Kitchener 1983), immediately adds a new and vital dimension to the learning systems model, which becomes a 'higher order' system within the learning systems hierarchy. Finally in this regard, a third 'level of learning', referred to as epistemic learning (Kitchener 1983), must now be added to provide the dimension of learning about the worldviews which contextualise what is being learned (Figure 6).

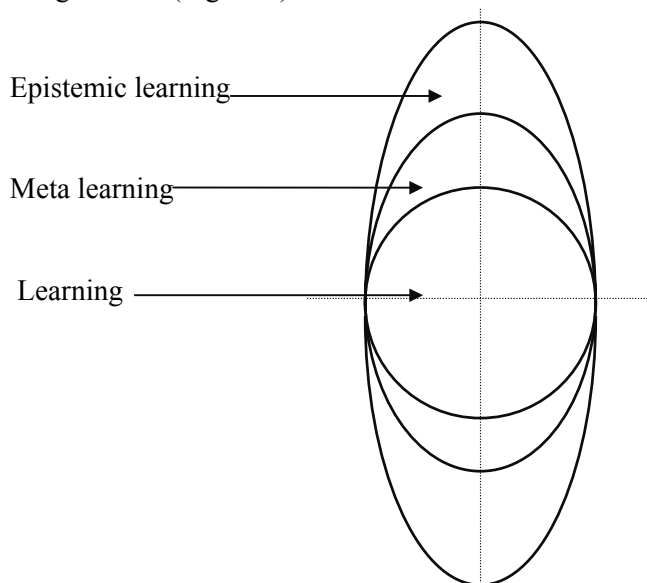


Figure 6 A Systems Hierarchy of Three 'Levels' of Learning

Speaking in terms of 'levels of cognitive processing', Kitchener herself describes these three levels as (a) cognition, which deals with knowing, (b) meta-cognition, which deals with knowing about knowing, and (c) epistemic cognition, which deals with knowing about the nature of knowledge. It is through epistemic learning that we learn to appreciate the nature of the worldviews and paradigms which we hold as the contexts for what and how we know, and also that we learn how to both challenge and, if appropriate, change them. It is at this level that we learn the implications of the prevalence of the worldview identified earlier as being based on the "reductionism, determinism, autonomous individualism, and materialism" (Vitz 1996).

Worldviews

To help us help learners to explore this domain, we have, introduced an icon to depict worldviews, again in the form of dialectics. Drawing on ideas introduced by Burrell and Morgan (1979) and Miller (1983), we have developed the notion of a worldview matrix composed of an ontological dimension (as the polar positions of holism on the one hand and reductionism on the other) and an epistemological dimension (with the polar positions of objectivism on the one hand and relativism on the other). As we see it, where ontologies are concerned with beliefs about the 'nature of nature', epistemologies concern themselves with the 'nature of knowledge' (about the nature of nature!). The distinctions in ontology recognised here, reflect the idea that one either accepts the irreducible wholeness of nature and other systems (holism), or one does not (reductionism). With respect to the epistemological distinctions one either accepts that there is "a permanent, ahistoric matrix or framework to which we can ultimately appeal in determining the nature of rationality, knowledge, truth, goodness or rightness" (objectivism) - as Bernstein (1983) put it - or we do not (relativism). We present each of the four quadrants as particular worldviews or paradigmatic positions, and have labelled them according to the idea of the specific focus or 'centricity' of each (Figure 7).

Given that our worldviews, as represented here at least, reflect our most fundamental belief positions, it is not at all surprising that we hold to them with such conviction. It is equally understandable that communication between people with different worldviews, is typically so distorted.

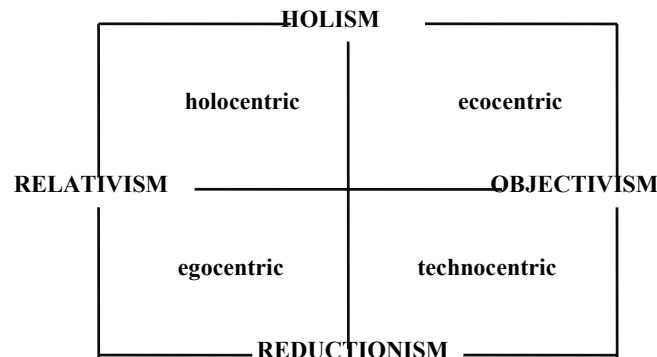


Figure 7 Four Worldviews as Functions of Differing Ontological/Epistemological Positions

The *technocentric* view of the world, which from the earlier comments can be taken as representing the prevailing paradigm of modernisation, is as far removed from the holocentric view as is conceivable to imagine, on this model. It is not surprising that the discourse about what constitutes responsible community development, for instance, is so difficult, given the tensions that exist between different belief positions and thus worldviews. A critical learning process must therefore include discourse about the nature and influence of worldviews on the process of learning - and ultimately, on development itself?

Our worldviews are not limited to cognitive belief positions but also extend to include normative positions, which are grounded in values frameworks. A similar form of matrix to the cognitive worldview framework can also be used to express different normative positions, although in this instance the situation is more complex as a function of the very nature of values. To illustrate the possible dimensions of a 'value framework', we have chosen two dimensions of the 'good society' that many claim to be at the core of our civilisation: Following James O'Toole (1993) we can thus discriminate between *libertarianism* and *egalitarianism* as one dialectic tension, and between *corporatism* and *communitarianism*, as the other (Figure 8).

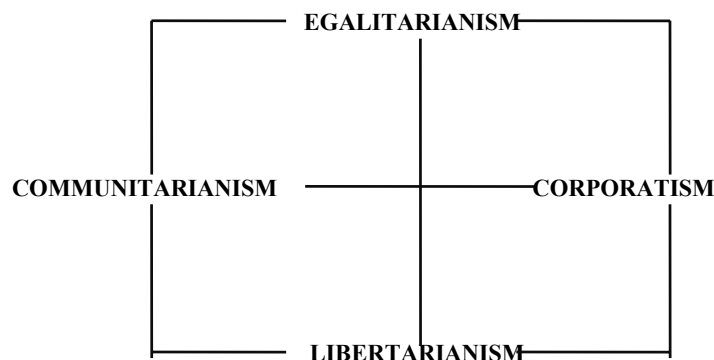


Figure 8 A Normative Worldview Window

These normative dialectics are of course different from their cognitive counterparts in that they only express themselves as 'polar opposites' when taken as extreme positions. The four cells furthermore, remain unlabelled, as the notion of centricity is also less apposite here. The point remains however that we do hold views which are markedly influenced by the particular normative positions we take on matters related to our respective dreams of the 'good society' and on liberty, equality, efficiency and community, which, as O'Toole (1993)

submits “tug like polar forces....at the society as a whole” and where “these four great themes of political argument are tradeoffs with each other, zero-sum positions in which an increment of one value leads to a consequent equivalent loss of its opposite”. Again it must be emphasised that these dimensions, fundamental that they are, represent but a fraction of the total value positions which we bring to bear in any discourse about development.

The issue here is that normative elements are as basic to the worldviews that we hold as are cognitive elements, and that awareness and critical consciousness of them are necessary prerequisites for the ‘emergence of meaning’ from any learning system.

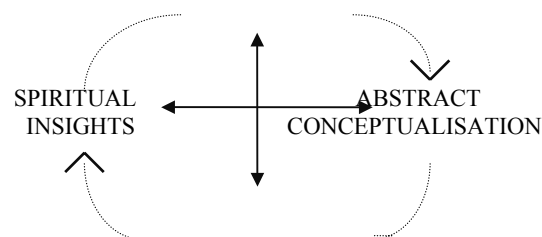
And it is through talking about values that we are inevitably led from the *experiential* focus to what we can sensibly call the *inspirational* focus.

The Inspirational SubSystem

While the British science writer C.P. Snow (1959) certainly popularised the notion of the ‘two cultures’, with the reason of the sciences on the one hand and the aesthetics of the arts on the other, the recognition that being human is much more than being objectively rational, stretches back at least to the time of the ancient Greek civilisation. The clear distinction which Aristotle made between the *episteme* on the one hand, and *nous* on the other, was a theme which persisted to the eighteenth century of Immanuel Kant - with his concern for the relationships between the facts and principles of science, and ethics and moral discourse - and beyond. Indeed today, there persists a distinction within philosophy between those who judge right from wrong solely on the consequences of actions, and those who focus on the theory of natural law or on notions of natural rights (Singer 1994).

The principle of inspirational learning draws its logic from the time-honoured distinction between learning from ‘outer experiences’ on the one hand, and from ‘inner insights’ on the other: The spirit of being human if you will - hence the use of the word *spiritual* below. It is accepted that just as experiential learning draws its dynamics from the dialectics of two opposing ways of grasping reality and two opposing ways of transforming it, so a similar proposition can be raised concerning two opposing sources of understanding (concepts and insights) and two opposing ways of transforming them (contemplation and application).

ACTIVE
APPLICATIONS



REFLECTIVE
CONTEMPLATIONS

Figure 9 An Inspirational Learning ‘Cycle’

In a manner analogous to the experiential process of Kolb (1984), and drawing on notions developed by Francisco Varela and his colleagues (1992), Ken Wilber (1990), and a life-time’s reading of poetry and listening to great music, the following four domains can be tentatively proposed as appropriate to a process of inspirational learning: *disengagement*, *accession*, *appreciation*, and *enactment* (Figure 10).

- *disengagement* involves the learner moving from abstract conceptualisation’s to reflective contemplations
- *accession* from reflective contemplations to spiritual insights
- *appreciation* from spiritual insights to active applications, and

- *enactment* from active applications to abstract conceptualisations.

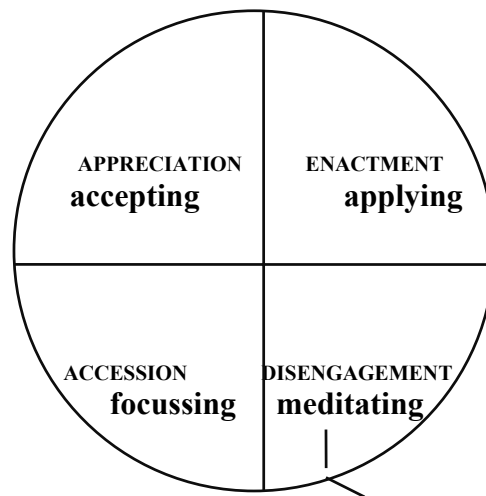


Figure 10 Four Basic Activities in an Inspirational Learning Process

Again following Kolb, but using the new language just introduced, the process of inspirational learning can be described in the following way:

The process of learning starts with the disengagement of the learner from the conceptual world through some process akin to meditation, in order to allow the mind to free itself from thoughts and enter a state of self-awareness with compassion. This stage is then followed by an attempt to ‘focus’ on one’s innermost being and on the insights that are either ‘held’ there or are created through the process of introspective contemplation. The third stage involves the learner in accepting the insights that have been revealed during the previous stage, while the final phase sees the application of these insights into the process of meaning-making.

Meaning emerges from the ‘systemic’ interaction of insights gained through inspirational learning with abstract concepts learned through experiential learning.

Earlier it was submitted that the experiential process, when regarded as a learning system, could be envisaged as a system within a three ‘level’ systems hierarchy which also involved meta and epistemic dimensions. Following the same logic, it is tempting to suggest a similar situation with respect to inspirational learning. However, given the deliberate rejection of ‘rational’ analysis within the latter process, it is probably not relevant to speak in these hierarchical and rational terms with reference to the inspirational learning process. It is appropriate however, to incorporate the values-based worldview into the process, reflecting the notion that just as there is an important relationship between the cognitive framework and the generation of meaning in the experiential learning system, so too can one defend the probability of the significance of a normative framework influencing the process of insight ‘creation’ or ‘revelation’.

The Integrated System

We are now almost in a position to integrate all that as been discussed into a complete model of a critical learning system, which has, in turn, practical application as a ‘road-map’ for the design, maintenance, development and evaluation of ‘learning communities’. There are just two further aspects to the system that require addition and explanation, and they relate to the matters of emotion and of power. It has long been recognised that emotions not only

affect the process of learning, but can be harnessed by it; to advantage. Aristotle put it this way: “anyone can become angry - that is easy. But to be angry with the right person, to the right degree, at the right time, for the right person, and in the right way - this is not easy.” The source of this quotation is a recent book by Goleman (1996) on what he terms emotional intelligence. The point that he makes and both defends and extends, is that as emotions very significantly influence the way we learn, it is sensible to learn how to use them to our advantage. From the perspective of a learning system, we might envisage emotions such as anger, sadness, fear, enjoyment etc, as constituting important environmental ‘elements’ both within the system (as its ambience), and beyond it, in the environment at large. The intelligent learner both recognises and manipulates these environment to advantage in the construction of meaning.

And this brings us to the final issue of power, and its influence, as Habermas (1984) has emphasised, as a potential source of distortions in communication, and thus on learning. This is not the place to elaborate on this complex matter, save to recognise that it too, needs to be focus of critical reflection, and central to any self-referential learning system.

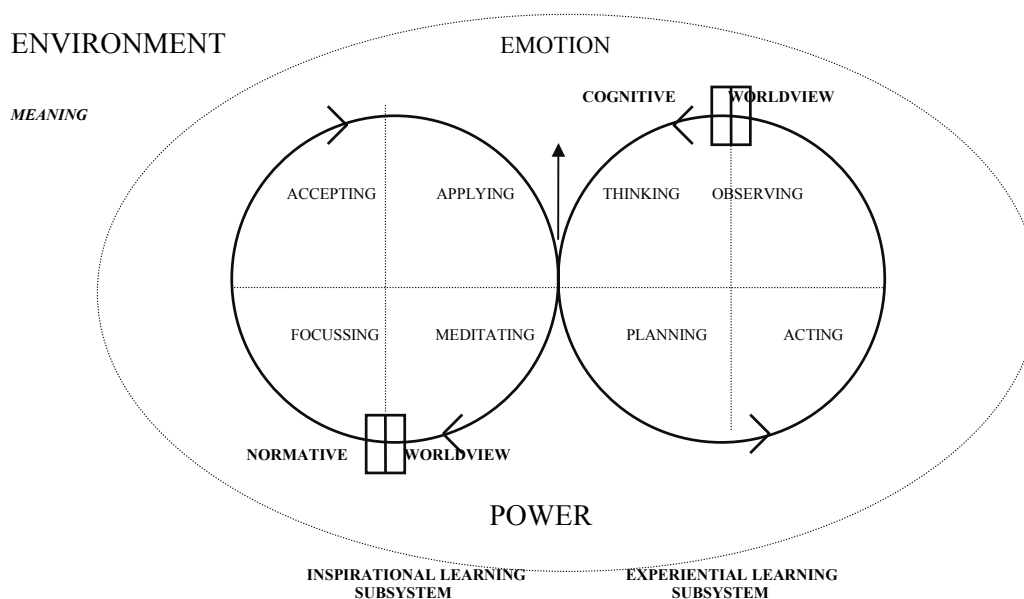


Figure 11 The Integrated Critical Learning System

Practical Application

As with any conceptual model it is vital to remember that the ‘map is not the territory’. The image of the critical learning system above is just that: An image, a mental construct, which has been generated through the application of theory and insights to help create meaning from real world experiences, which have in turn, helped in the modification of those theories and the creation of fresh insights. So this is as much an illustration of what some of us see as the process of community learning that has characterised initiatives at Hawkesbury over the past two decades, as it is an idealised image of what we believe describes a generalised model of a critical learning system.

In its application, it suggests a series of important factors to consider whenever the establishment, development and evaluation of a learning community is being mooted. It illustrates a number of key aspects of ‘social learning’ indicating some of the domains and dynamics that need to be considered. These are worthy of review under the rubric of an effective learning community as one which:

- Has achieved a sense of its own coherence and integrity

- Contains a requisite level of variety and diverse tensions of difference which are essential for its own dynamic
- Is clear about its purpose and the influence of this on the boundary of its concerns and indeed its structure
- Combines both experiential and inspirational learning processes in its quest for meaning for responsible action
- Is conscious of meta and epistemic cognition, and of the influence of both cognitive and normative worldviews as frameworks for the way meaning is created
- Is critically aware of its own emotional ambience, and competent at the intelligent management of those emotions
- Is aware of the emergence of properties unique to different levels of its own systemic organisation, just as it is to the dynamics of chaotic change and the potential of property emergence following reorganisation
- Appreciates the nature of the environments (suprasystems) in which it operates, and is conscious of both constraining and driving ‘forces’ in that environment
- Is critically conscious of its own power relationships and those which exist between it and the environment about it, and knows what influence this has as a potential distorter of communication
- Is self-referential, critical of its own processes and dynamics, and capable of self-organisation in the face of continual challenge from its environment
- Exhibits leadership as well as meaning as an emergent property

This ‘checklist’ of systems’ characteristics provides a framework for the sort of conversations and discourse which guide a community which is intent on improving its own capacities for learning its way into better futures.

It is a map for systemic development which has its own continuing systemic development.

Dedication and Acknowledgments

This presentation is dedicated to the memory of my beloved Diane, who, in learning how to die, provided an infinite source of insights into learning how to live.

As always it is a privilege to acknowledge the generations of learners who have been, as many continue to be, participants in Hawkesbury’s grand enterprise, whose experiences, concepts and insights have both helped in the evolution of the model, and been informed by it in their own extensive activities in the facilitation of learning communities. Among my academic colleagues, I would specifically like to acknowledge the support of Bruce McKenzie, Roger Packham and Bob Macadam as together we attempt to create a new critical learning system at the Centre for Systemic Development.

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Appendix Three