

Systemic Development and the role of Values

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Introduction

In 2007, the Australian Public Service Commission recognised the ever growing number of seemingly intractable, complex and dynamic “*wicked situations*” that government agencies must now face. Climate change adaptation, the sustainable management of natural resources, global financial instabilities, challenges posed by the growing international and national water crisis, and food security are all examples of ‘*wicked*’ situations or ‘*messes*’. Each brings into question conventional ways of thinking, problem solving and acting which are proving to be increasingly inadequate in the face of such dynamic complex matters.

These ‘wicked issues’ typically demand attention to ethical, aesthetic, cultural and ecological dimensions as well as the more traditional technical, economic and social ones. Tackling them “*calls for high levels of systems thinking [that] helps policy makers to make the connections between the multiple causes and interdependencies of wicked problems that are necessary in order to avoid a narrow approach and the artificial taming of wicked problems*”¹ They then go on to say: “*Agencies need to look for ways of developing or obtaining this range of skills.*”

Systems thinking, along with its practical application as **systemic development**, present innovative perspectives and practical approaches for dealing with the complex circumstances that are coming to characterise this emergent ‘Age of Sustainability’. The focus of systemic development is on practical actions that promote improved and sustainable relationships both within any nominated system of interest and, most significantly, between such systems and the environments in which they must operate. I am working with a group of colleagues within a company called the *Systemic Development Institute Pty Ltd* to educate people, through a series of workshops, about these concepts. I outlined some of these ideas at the 2009 Sai Education conference.

Systemic development is a learning approach to change. and a part of our workshops enables participants to look at the changes that have occurred in their lives, the drivers of these changes, and from this understanding to project forward potential scenarios of the future, and how these may unfold - what influences any particular developments. Clearly some future scenarios are preferable to others. This enables participants to see the role they, and the values they hold that drive the actions they take, play in enabling better outcomes to emerge. This helps them to plan and enact personally developed strategies to move the issues they are concerned with in more desirable directions.

Systemic Development

The practice of systemic development has revealed four summary points:

1. *Being systemic* is approaching the world, and issues in it, with a sense of comprehensiveness, wholeness, inter-connectedness and integrity.
2. When applied to development, systemic practices seek improvements in a manner that reflects the inter-connectedness of the ‘improvers’ with that to be ‘improved’
3. Acts of systemic development in the material and social worlds are functions of the systemic, intellectual and moral development of the actors who should be (need to be) involved in them.

¹ Australian Public Service Commission (2007) *Tackling Wicked problems; A public Policy Perspective*, Australian Government, Canberra

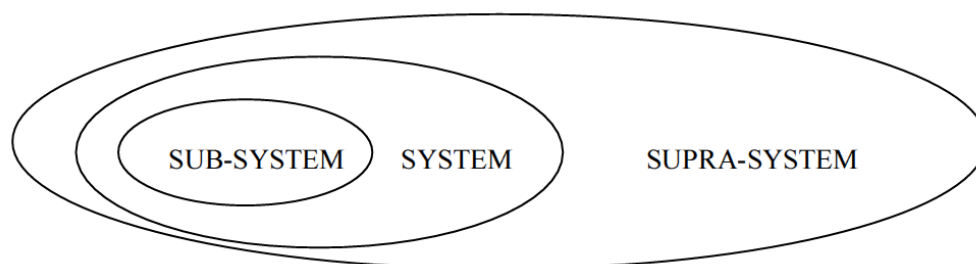
4. People learn to use systems methodologies effectively once they have developed the systemic competencies that come with their *epistemic* development (I will explain this below), rather than the reverse.

There are two key concepts involved in understanding the practice of systemic development. These are:

- *The Nature of Inquiry for development*
 - ❖ Learning by being told (propositional)
 - ❖ Learning by being shown (practical)
 - ❖ Learning by being in the world (experiential)
 - ❖ Learning through *Intuition* or *Inspiration*
- *Being Systemic*
 - ❖ Every System is a bounded ‘whole entity’ composed of an integrated set of interconnected parts that are themselves systemic in their nature (sub-systems)
 - ❖ Every System is thus part of a ‘higher order’ system that constitutes the environment in which that system is said to be embedded
 - ❖ Properties, unique to each level of that ‘hierarchy of embedded systems’, emerge as a function of the interactions between the particular sub-systems of that system (and which are thus unknowable from a study of the parts in isolation from the whole)

The art of being systemic is to explore reality and to investigate issues that one experiences in this reality, in a manner that captures (a) the sense of wholeness, (b) the sense of embedded interconnectedness, and (c) the sense of emergence. Human cognitive capabilities are such that most of us are unable to deal comfortably with more than three levels or dimensions of anything, and that means for all practical purposes that ‘systemists’ deal with the world (and issues in it) in three dimensions: and that includes learning itself as cognitive processing within three cognition dimensions. Figure (1) illustrates this three-level concept of any system. The art is in selecting the appropriate level to be working at, as one level may start off as being seen as the system, but upon exploration it may be necessary to go up or down a level – thus the Supra-system may now become the system level, what was the system level becomes the sub-system level, and a new environment or supra-systems is brought in. A good example from biology is to decide if you should be looking at a human as the system? Or society? Or go the other way to an organ of the body as the system in focus? Or perhaps the cellular level? The selection of the system to focus on will depend upon the nature of the problem being addressed, your perspective, and your ability to take action. In all cases you will then only focus on the three levels as illustrated.

Figure 1: A generalised systems model

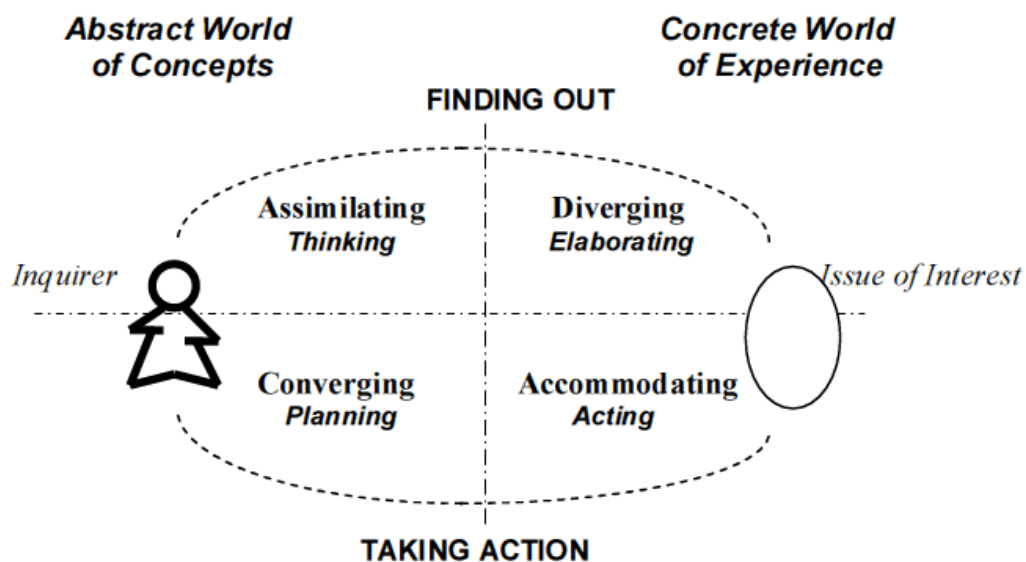


The process of learning for development

Learning or inquiring (or researching) can be seen to consist of four basic but highly inter-related cognitive activities with two foci, *finding out* and *taking action*, each operating in two 'worlds', the *concrete* and the *abstract*, as illustrate below in figure (2).

Learning, or inquiring, is thus a dynamic dialectic process that pulses between these four dimensions'. Those with a scientific background will clearly recognize the connections between the learning process that is presented here, and the ways of normal scientific enquiry. Those with a clinical background similarly will recognize the process as that of classical diagnosis.

Figure 2: A model of cognitive learning



We can also change the way we cognitively learn, so not only are we *learning* (first-order), we are also *learning to learn* (second-order). Further, we can also learn about the *perspective* through which we both learn, and learn to learn (third-order). This third, or *epistemic*, order is where *being systemic* sits. This perspective is the framework through which we view and act in and on the world – it can be illustrated as if it were a *window on the world*. Each 'pane' in the window represents a different view of the world. The same issue viewed from a number of different perspectives becomes a number of different issues! From the perspective of a learning system, the worldview assumed by the learner will very markedly influence both what is learned and how it is learnt.

Worldviews

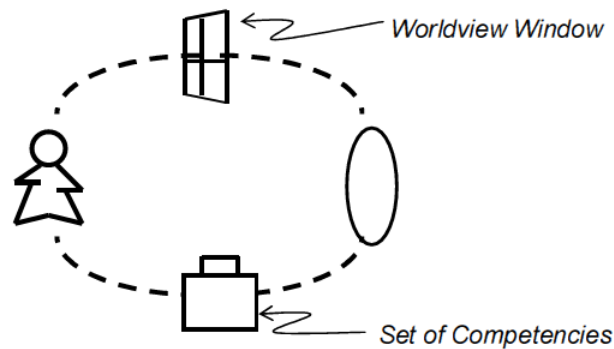
A particular perspective or worldview reflects some very deeply held beliefs about:

- a) the nature of nature or 'reality' (ontological beliefs)
- b) the nature of knowledge and ways of knowing (epistemological beliefs), and
- c) the nature of human nature – especially ethical and aesthetic (axiological beliefs or values).

We can portray this notion of worldview by introducing an icon for a "worldview window" into our simple model of the learning process. We can also introduce here the idea that, just as we have a worldview that impacts the way we see the world, so too do we possess a limited set of

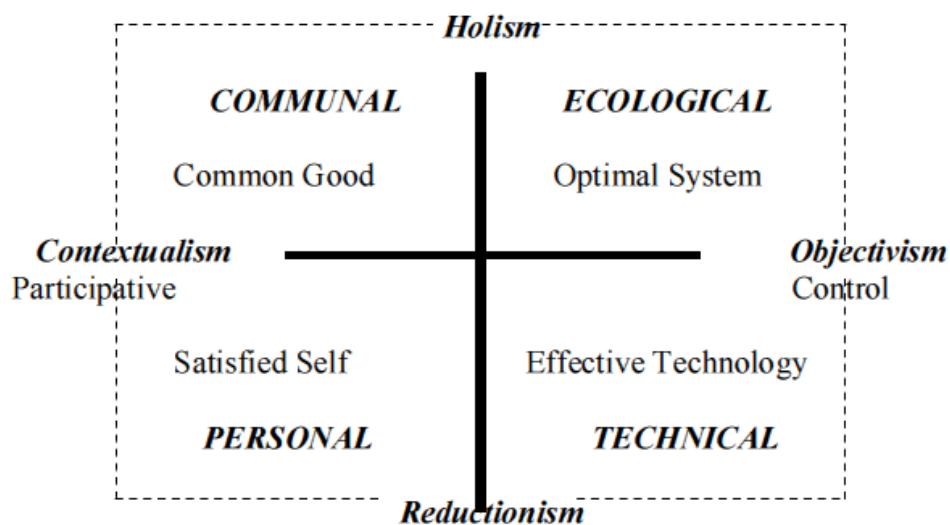
competencies that constitute the ‘bag of tools’ or ‘box of tricks’ for what we *do* in the world, that each of us develops as a reflection of our particular worldviews and experiences - as illustrated in figure (3). There is an epistemic issue of the connection between our worldviews and our competencies: In essence, what we each *do* in the world reflects the way that each of us sees that world through our particular ‘meaning making’ worldview framework or, as many philosophers call it, our prism.

Figure 3: Introducing worldview and competencies to the learning model



Through workshop exercises and dialogue, it becomes clear that ethics and their practice through *values* are integral to choosing perspectives/worldviews, and on deciding what constitutes a *better* course of action from a number of alternatives developed by the participants.

To illustrate these ideas I have selected a context to show some relevant worldviews which will then emerge. Using only two ontological dimensions (the nature of reality) *holism* and *reductionism*, and two epistemological dimensions (the nature of knowledge) *objectivism* and *contextualism*, it is possible to identify four different worldviews that are relevant to different approaches to ‘natural resource management’ – and indeed to the pursuit of ‘sustainable development’.



Values as a key element of worldviews

What students have to acquire are human values. Together with the acquisition of every conceivable knowledge and the pursuit of scientific studies, they should cultivate human values. They need good qualities even more than intellectual abilities. Of what use is a mountain of knowledge without good qualities? It is virtue that lends beauty to man. (Discourse 22-11-1991)

The higher life, which makes man human and a fit candidate for unfoldment of the Divinity that is his Reality, depends on the cultivations of the Five Cardinal virtues--Truth, Right Conduct, Love, Peace and Non-Violence. These virtues elevate the individual as well as the society of which he is a part. (Discourse on 28-12-1986)

Let me start this section by defining some terms. **Value** implies intrinsic excellence or desirability - that quality of anything which renders it desirable or useful. Values can be defined as broad preferences concerning appropriate courses of action or outcomes – as sense of what ‘ought’ to be. **A Virtue** is a character trait or quality *valued* as being good; thus **virtue** is the conformity of one's life and conduct to moral and ethical principles or uprightness. A virtue is a habit or quality that allows the bearer to succeed at his her, or its purpose - to identify the virtues for human beings one needs an account of what the human purpose is. Finally **ethics** is that branch of philosophy dealing with *values* relating to human conduct, with respect to the rightness and wrongness of certain actions and to the goodness and badness of the motives and ends of such actions.

Each individual, whether they are aware of it or not, has a core of underlying values that contribute to our system of beliefs, ideas and opinions. In this context a *value* is the core from which we operate or react. Thus it helps our understanding of the world if we examine our own values. As Socrates is reputed to have said: *The unexamined life is not worth living.*

John Ralston Saul² speculates about the list of human qualities that give us the intelligence, self-confidence and practical ability to think and act as responsible individuals. When worshipped in isolation, he believes each of these qualities becomes a weakness, and ideology: What is needed is a balance between them all. He sees them as six qualities: *Common Sense, Ethics, Imagination, Intuition, Memory and Reason*. Each takes its meaning from the others, from the tension in which they exist with each other. An *equilibrium* between them also fosters an ethical society.

It is following the introduction of worldviews that into our SDI workshops that ethical issues become apparent, and in our workshops we conduct exercises to draw out participants' responses and beliefs about some different ethical questions, and then introduce three key ethical systems: *deontology* (rule-based); *consequentialism* (utilitarian); and *Virtue ethics*. Also raised through participatory exercises are the connections between ‘virtues’ (as a class of ethical assumptions) and ‘character strengths’. Peterson and Seligman³ found 6 virtues that were endorsed across every major religion or cultural tradition - Aristotle, Plato, Aquinas, Old Testament, Talmud, Confucius, Buddha, Lao-Tzu, Bushido, Koran, Benjamin Franklin, and Upanishads. These authors note that *"Strengths of character are routes by which we achieve the virtues"*

² John Ralston Saul (2001) *On Equilibrium*, Penguin , Australia

³ Peterson, C. And Seligman, M.E.P., 2004, *Character Strengths and Virtues: A Handbook and Classification*, Oxford University Press, New York, USA.

The six classes of virtue (i.e. "core virtues") are made up of twenty-four measurable character strengths, with the core virtues being: *Wisdom and knowledge; Courage; Humanity; Justice; Temperance; and Transcendence*. The authors believe that these Strengths:

- can be acquired by any person
- lead to self-satisfaction when choosing a difficult course of action
- enhance positive emotion in the doer, such as pride, satisfaction, joy, fulfilment, and harmony
- can be developed by institutions through role models and cultural support

It should also be noted that Sathya Sai Baba has said:

Virtue is the panacea for both body and mind. The virtuous person can be both healthy and happy. How is virtue to be cultivated? How can it express itself in daily practice? Through service to living beings, through seva (voluntary selfless service). Virtue must flow through the triple channel of love, mercy and detachment, in order to feed the roots of seva. In order to urge humans into the path of mutual sympathy, continuous compassion and concrete service, they have been endowed with the instinct of gregariousness. Man is a social animal. Humans find solitary living, unnatural and miserable. (From Divine Discourse- Sept. 1980)

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Intuition and Inspirational Learning

With the model of action inquiry/experiential learning introduced above, there has been an emphasis on a process which is almost entirely rational and the result of conscious reasoning, as we move between *finding out* and *taking action* and between the *concrete* and the *abstract*. Everyone is aware however, that there are times when *taking action* is informed, not by some conscious thought or logical rationality, but by a sudden, spontaneous feeling that *that* is the right thing to do. This form of 'understanding' is referred to as *intuition*, and while our schooling rarely explores the phenomenon or encourages us to develop our intuitive capabilities, much is known about it, and much has been written about its significance to the way we make sense out of world and take action in it. As the mathematician Pascal said: *the heart has its reasons of which reason knows nothing*.

If the model of inquiry we use was to be more comprehensive and 'holistic', then we recognised a need to incorporate intuition and intuitive ways of knowing into it, and to link intuitive ways of action inquiry - what we have termed *inspirational learning* - with the empirical/rational features of *experiential learning* that have been described above. In our interpretation, we portray intuition as a cognitive activity of inspirational inquiry that draws, not on concrete experiences 'out there' in the world, but on insights that are innate to us by virtue of us being human beings. Aristotle referred to the "something divine within us" that was the source of our contemplative wisdom and certainly the majority of the world's religions are based on the belief that each of us holds to certain "truths" that are the result of some form of 'divine intervention'. One does not have to be religious, or to believe in divine revelation or intervention however, to accept the argument that all of us do seem to have the capacity to draw on innate insights – whatever their origin - through some contemplative/meditative process or another of non-rational, non-reasoned intuition which some, like Carl Jung, have argued is the source of much of our imagination, our creativity, and indeed of our *sense of wholeness*. William Shakespeare, in *A Midsummer Night Dream*, says:

*Lovers and madmen have such seething brains,
Such shaping fantasies, that apprehend
More than cool reason ever comprehends.
The lunatic, the lover, and the poet
Are of imaginational all compact....*

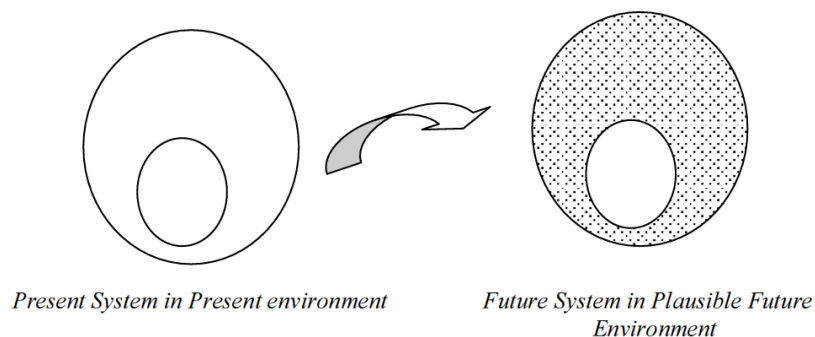
In our work at SDI, we have adopted the word *spiritual* to capture this phenomenon to indicate both secular and sacred dimensions. As we see it, meaning emerges as the result of 'dialectical interactions' between the process of *experiential learning* on the one hand, and *inspirational learning* on the other, with these processes in turn interconnecting the concrete world of sensual experience, the spiritual world of insights, and the abstract world of concepts.

These ideas of the *spiritual*, the *conceptual* and the *concrete* or sensual are not that far removed from those mooted by Bonaventura in the middle ages, who, as Ken Wilber⁴ 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*.

A Critical Learning System

The ideas developed so far can now be all combined into a model of a *critical learning system*, or a *learning lemniscate*. This is illustrated in figure (3) on the next page.

To enact these ideas SDI has developed a number of experiential methods, but in doing so it is also important to explore the Environment – the meta-system – also shown in figure 3. It is within this environmental supra-system that the actions decided upon by the critical learning system must or *plausibly might have to operate in the future* under external conditions that could be far different from those of the present which pose very considerable threats to the form and function of any system-of-interest, as illustrated here:



⁴ Wilber, K. (1990) "*Eye to Eye: The Quest for the New Paradigm*" 2nd edition Anchor /Doubleday New York.

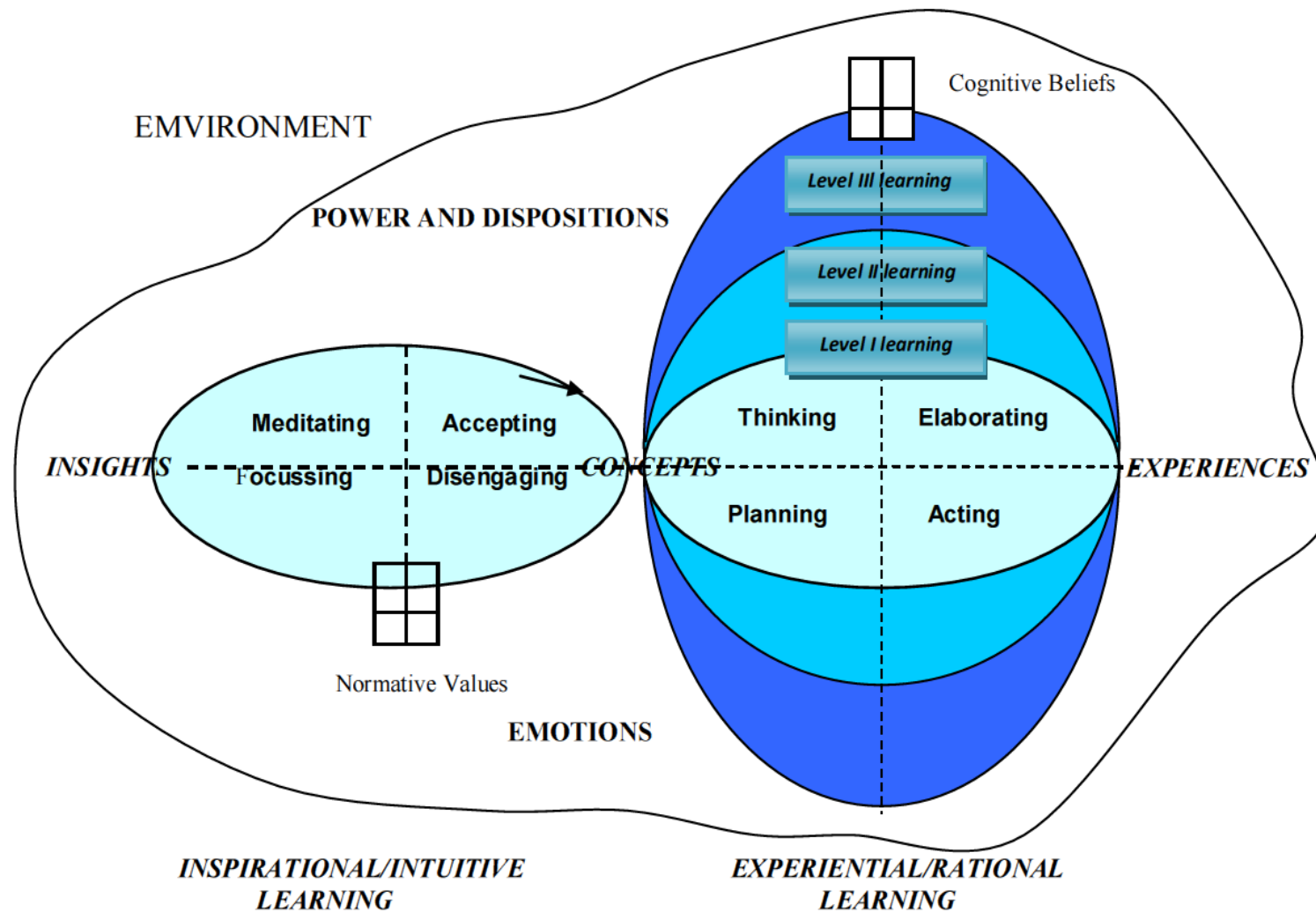


Figure 3: A Critical Learning System (a learning lemniscate)

Exploring the future

A useful way of exploring or scanning the environmental supra-system is to 'investigate' or **[I]NSPECT** it from a number of different perspectives or domains which represent powerful sources of external influence – *Natural, Social, Political, Economic, Cultural* and *Technological* - all the while recognizing (a) that these are abstractions and are thus imposed or construed categories, (b) that single influences from any of these domains rarely 'act alone' and are much more likely to be represented as dynamic complexes of influences within and across the different domains and (c) that everything that is observed or 'imagined into being' with respect to the character of the environment is a function of those doing the observing/imagining. In other words, the nature of the environment is always an Interpretation – reflecting personal or collective worldviews (and thus values) – of the way things 'are' or 'could plausibly be'. This is why the **[I]** in the **[I]NSPECT** acronym is always placed in brackets and referred to as the '*I*' in parenthesis. The following figures 4 and 5 illustrate this approach. Figure 4 shows the system of interest surrounded in an interactive way by the different influences of the environmental supra-system.

Figure 4: The **[I]NSPECT** environmental influences on the system of interest

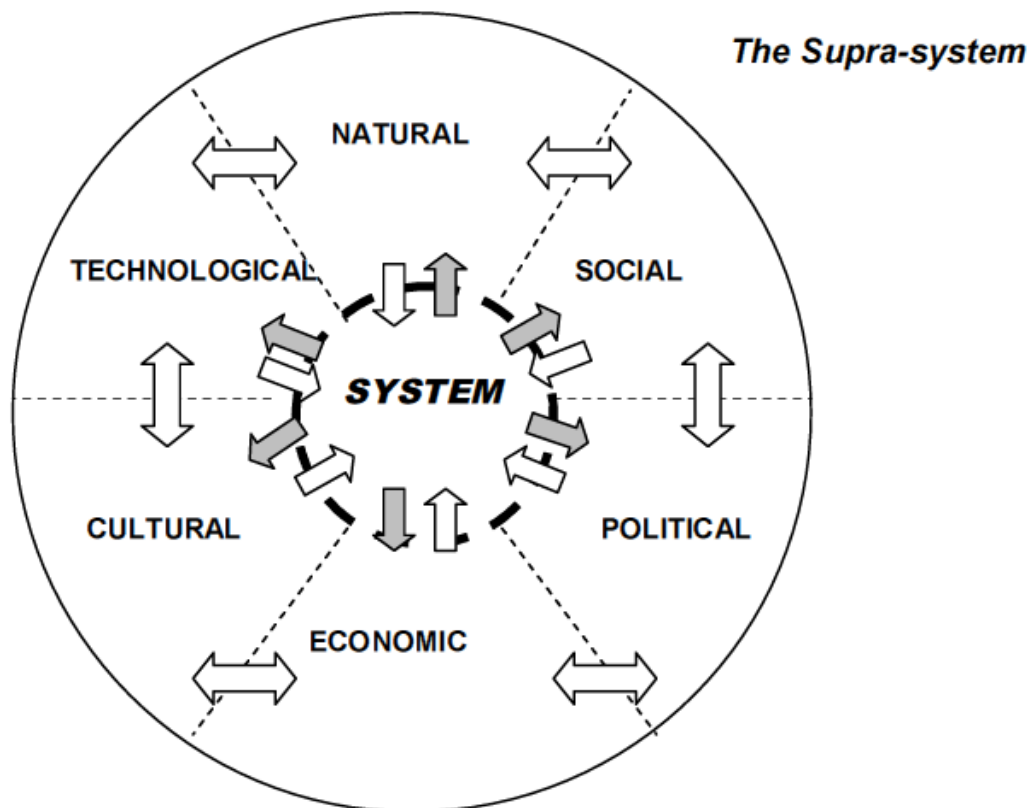
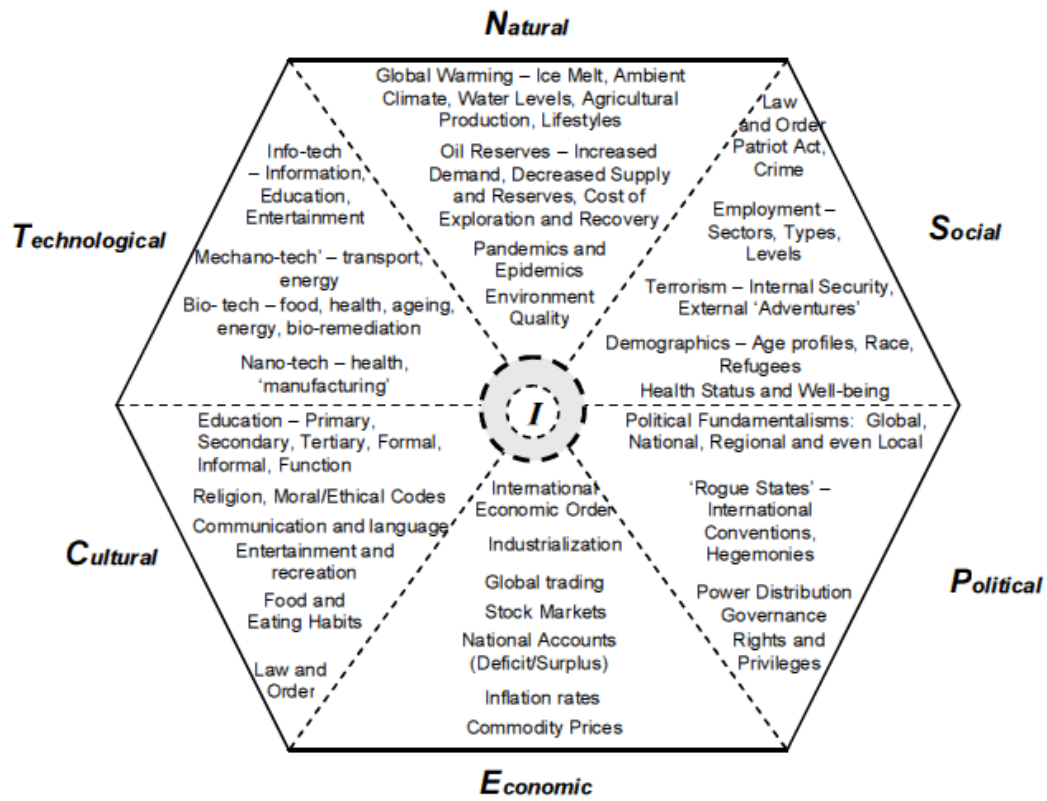
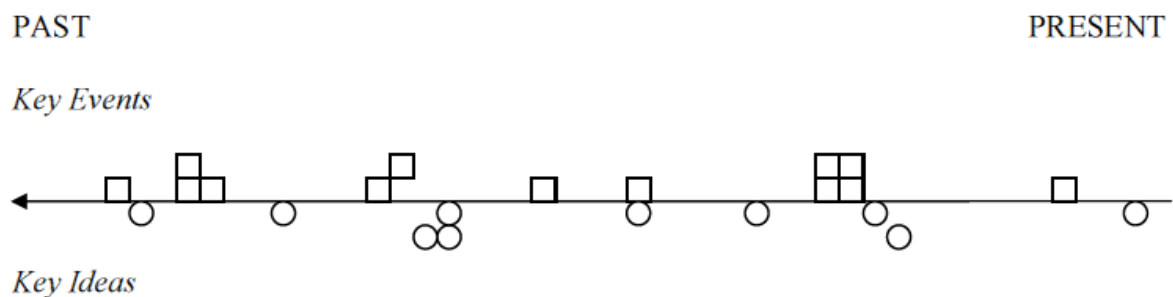


Figure 5: An illustration of an Environment explored through [I]NSPECT



One of the key aims of scenario learning, as this type of futures exploration that SDI uses is called, is to identify the role and nature of individual worldviews and associated values as they are expressed in individual interpretations, and to explore ways by which the challenges presented by differing interpretations (worldviews) can be addressed and accommodated in the scenario process. The exploration of the *future*, however, starts with an exploration of the *present*.

Participants are asked to create a timeline in retrospect from the present back to the past, identifying key events and/or ideas that might have changed the nature of the environment as it now appears, and the trajectory it has followed to arrive as it is. This is always a highly energetic and participative process.



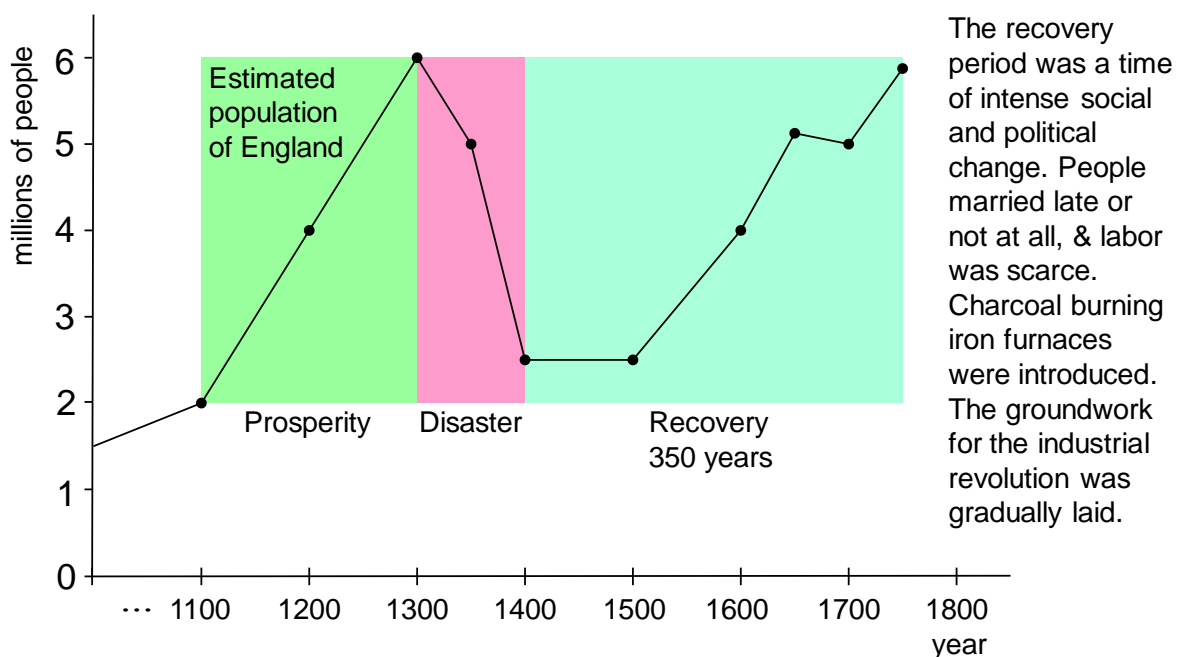
The construction of this time-line will often be the source of disagreements about detail: The significance of this is not to get stuck on arguing the finer details of what might or might not have happened at any particular time, but to note the disagreements and record the differences of opinion on the time line. These can be useful matters for reflection later.

Let me illustrate how looking back at the past can illuminate aspects of the current situation and future scenarios. Climate change has happened before in recorded history, so let us look briefly at the medieval period in England. The 12th and 13th centuries were the high period of medieval culture, a time of prosperity and plenty. The climate was warm and dry. Most of the great gothic cathedrals were built during this period. There was a steady growth in European and Asian trade and population. Agriculture expanded and in England there was expanding colonization of marginal woodlands, heaths and fens. Population soared from around 2 million in 1100 to about 6 million in 1300.

By 1300 the social organization and technology of the time encountered environmental limits and the expansion stalled. In addition there was the sudden onset of climate change. The “Medieval Warm Period” abruptly came to an end, and the “Little Ice Age” began. There were repeated epidemics of livestock disease, referred to as “Murraine”, and crops began to fail, leading to widespread famines.



Recovery: social and political change



Source: Sir Frank Stenton, referenced in Christopher Brooke, *From Alfred to Henry III 871-1272* W.W. Norton, New York 1969 printing, p.107; Barbara Heizen, forthcoming 2004

By 1350 the Black Death struck. In a single two year period between 1348 and 1349 the population of England fell by a catastrophic 30–40 percent. The plague returned again in the 1350s and the 1370s. By the end of the fourteenth century the English population had collapsed to only 2.5 million from its peak of 6 million in 1300. The population collapse triggered the breakdown of the feudal and manorial system, opening the way for the Peasant’s Rebellion led by Wat Tyler in 1381. See figure 6 below for a graphical illustration of these events.

Following this timeline process to examine and think about the past up to the present, the workshop process now turns to the future, and through a series of experiential exercises, participants identify scenarios of what the world beyond their system of interest *might plausibly look like*. The task given is to develop three or four different scenarios of the future which stand the test of plausibility and rigour. The outcome will be stories or narratives of a ‘pretend present’ as narrated by observers in the year 2031

I will end this section by introducing a current idea about immanent changes going on in our society that may cause radical change, and thus could be incorporated into such scenario stories of the future.

Modernity is the name given to the dominant culture we now live in. Modernity has conferred great benefits, but continuous expansion is central to modernity. However, another feature, globalization and operation at a global scale, instead of being the next stage of growth for modernity, is seen by some as its limiting point and the threshold of transformation. Modernisation has brought major gains, including Life expectancy increases from 35–40 in pre-modernity, to 75–80 years today, while incomes are up by 20 – 30 times.

A core process of modernity was industrialisation; the societal goal was economic growth; and the individual’s goal was material achievement. Other features include: Urbanization, secularization, bureaucratization, legal-rational authority, formal education, occupational specialization, achieved status (vs ascribed status), social mobility, reduced gender role-specialisation, instrumental rationality, and expanding communications. The values held in this epoch were:

- Quantity
- Anti-disease
- Anti-death
- Death control
- Overcome external restraints
- Competition
- Self-ism

At a course I attended earlier this year, information was presented by a futurist, Hardin Tibbs, about a new era that is emerging in our society that can be seen to have the following values: Quality, Pro-health, Pro-life, Birth Control, Impose Self-restraints, Cooperation, and Mutualism. Those that hold these values are being called *Cultural Creatives*⁵, and this group are seen as diverging from the modernist mainstream, cutting across all demographic categories. In 1999, they made up 50 million people in the US (26% of adults), and 80–90 million in Europe (30–35% of adults) The *Cultural Creative* values are:

⁵ Hardin Tibbs *lecture, presentation* Schumacher College January 2011, Deveon, UK

- strong concerns about ecological sustainability and saving the planet
- strong concerns about gender equality and civil liberties
- a deep commitment to personal growth (including both psychological and spiritual dimensions)
- an insistence on “authenticity” (essentially the “walking your talk” principle of the civil rights movement)
- and a sense of outrage about the disregard by big business of these same issues

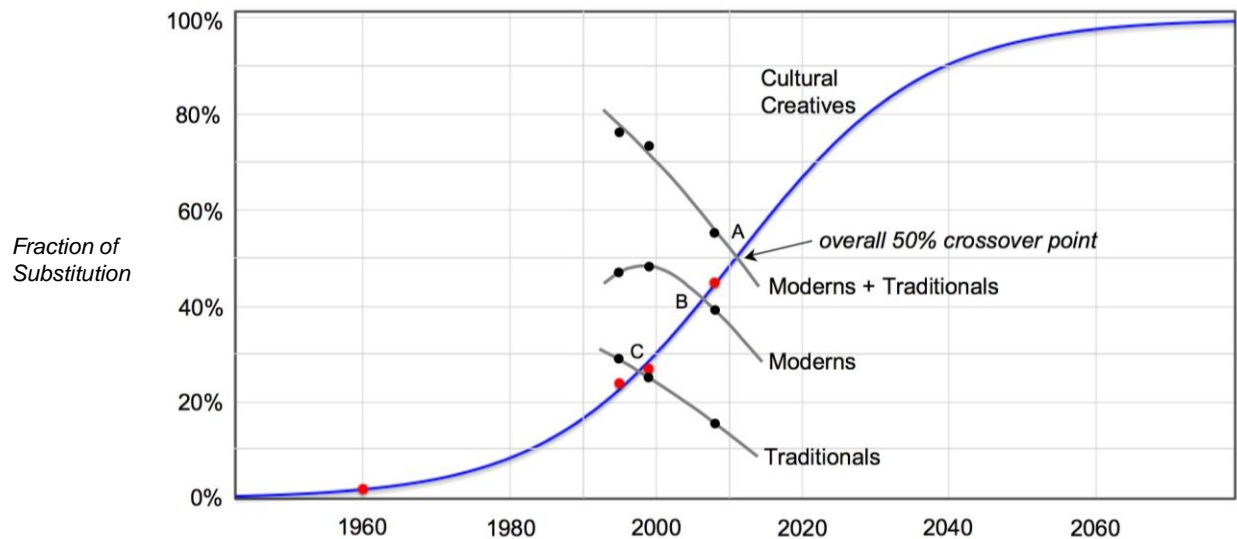
Year	Cultural Creatives	Moderns	Traditionals	Total
1995	24.0%	47.0%	29.0%	100%
1999	27.0%	48.0%	25.0%	100%
2008	44.9%	39.7%	15.4%	100%

- **Percentages of the adult U.S. population**
- *The values in this table have been assembled from three unpublished texts by Paul Ray that are accessible on the Internet (Ray, 1996, 2002, 2008). The 1995 percentage for Cultural Creatives comprises two sub-categories, the Core Cultural Creatives and the Green Cultural Creatives (Ray, 1996). The numbers for 1999 have been taken as being the middle of the ranges reported (Ray, 2002, p. 5). The 2008 percentage for Cultural Creatives comprises three sub-categories, Core Cultural Creatives, Green Cultural Creatives, and Transitionals, an additional more peripheral group (Ray, 2008, p. 9).*

Hardin Tibbs believes there are four options for communities, or potential scenarios of the future:

- Continue on the old path
- Remain focused on traditional issues such as education, crime, infrastructure
- Attempt to transform issues crucial to the future, even if they operate at national or transnational levels
- Build an independent local economy capable of supplying local needs if the overall cost of dealing with the global economy is too high

Cultural values crossover event



Source: Calculation by H Tibbs 2010, using data from Paul Ray including TNS Cultural Creatives Survey 2008. *Journal of Futures Studies*, February 2011

Final Words

We continue to explore the ideas of holistic science, a science of qualities, and what we can learn from community-based grassroots developments such as the *transition towns'* movement. We look at how communities are working with the issues of peak oil and climate change, sustainability issues, and the theories associated with these. We struggle with finding more meaningful ways to incorporate values into our work, and how we are to understand human values to guide our actions.

Currently we are looking at the latest findings in consciousness research and the embodied mind⁶, and of the different worldview each hemisphere of our own brain presents to us⁷, how the brain hemisphere differences are integrated, and what the consequences were for our culture in history, and might be into the future. A third part of our current interests is to look at the ideas of the

⁶ Evan Thompson (2007) *Mind in Life: Biology, Phenomenology and the Science of Mind*, Harvard University Press, London, England

⁷ Ian McGilchrist (2009) *The Master and His Emissary: The Divided Brain and the Making of the Western World* Yale University Press, London, England

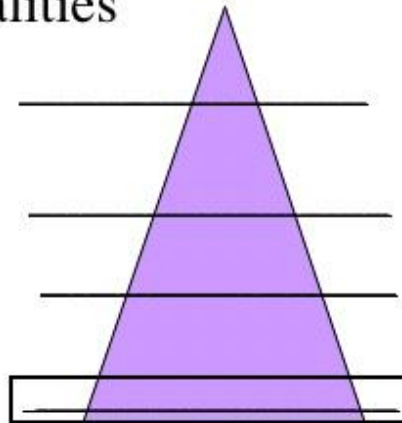
phenomenologist Max Scheler⁸, and how his ideas, written at the beginning of the twentieth century, have similarities with those of Sathya Sai Baba.

For Scheler, values are a pre-cognitive aspect of the existing world, a world we co-create together. Sathya Sai Baba tells us the same thing when He says values are within us all, and the world is not real, but an illusion. Thus things can only be judged in a context and as a whole, so the same act carried out by two different people may carry an entirely different value. Thus morality can never be a matter of actions or consequences taken out of context. We judge a person by the whole that we know that person to be, not by summing the totality of their acts or characteristics. Also, the capacity for appreciating a value governs the type of attention we pay to anything, and by which we learn more about it.

Also for Scheler, the movement and act of *Love* was seen as a primal essence. Only when reason and logic have behind them the movement of love and the proper moral preconditions can one achieve knowledge. Love opens our spiritual eyes to ever higher values in objects we see. He also saw values as already existing in the mind in a hierarchy of value modalities as illustrated below, with the lower values deriving from the higher ones.

A' Priori Hierarchy of Value Modalities

- **Values of the Holy & Unholy:** the Divine & "Idols"
- **Mental (Psychic) Values :** the Beautiful & Ugly; Right & Wrong, Truth & Falsehood
- **Vital Values:** Nobel & Vulgar.
- **Sensual Values:** the Agreeable & Disagreeable.
- **Values of Utility/ Connecting Point with Vital Urge:** Economics, Politics, Productivity. **NOT INCLUDED IN ANALYSIS OF FEELING STATES**



⁸ Manfred Frings (1997) *The Mind of Max Scheler*, Fordham University Press

The challenge for us is now to find ways for all these ideas to be used experientially in our workshops. The concepts described in this paper as practiced in our workshops have evolved over time – they are the result of an action learning process, rather than rational thought derived from theory. As such they continue to change as the result of the events that go on in the workshops, and of the ideas that we read and learn about. It is an unfolding process, not a static entity – what we believe all learning is.