Organisational Fitness: from the Viable Systems Model to Organisational Patterning

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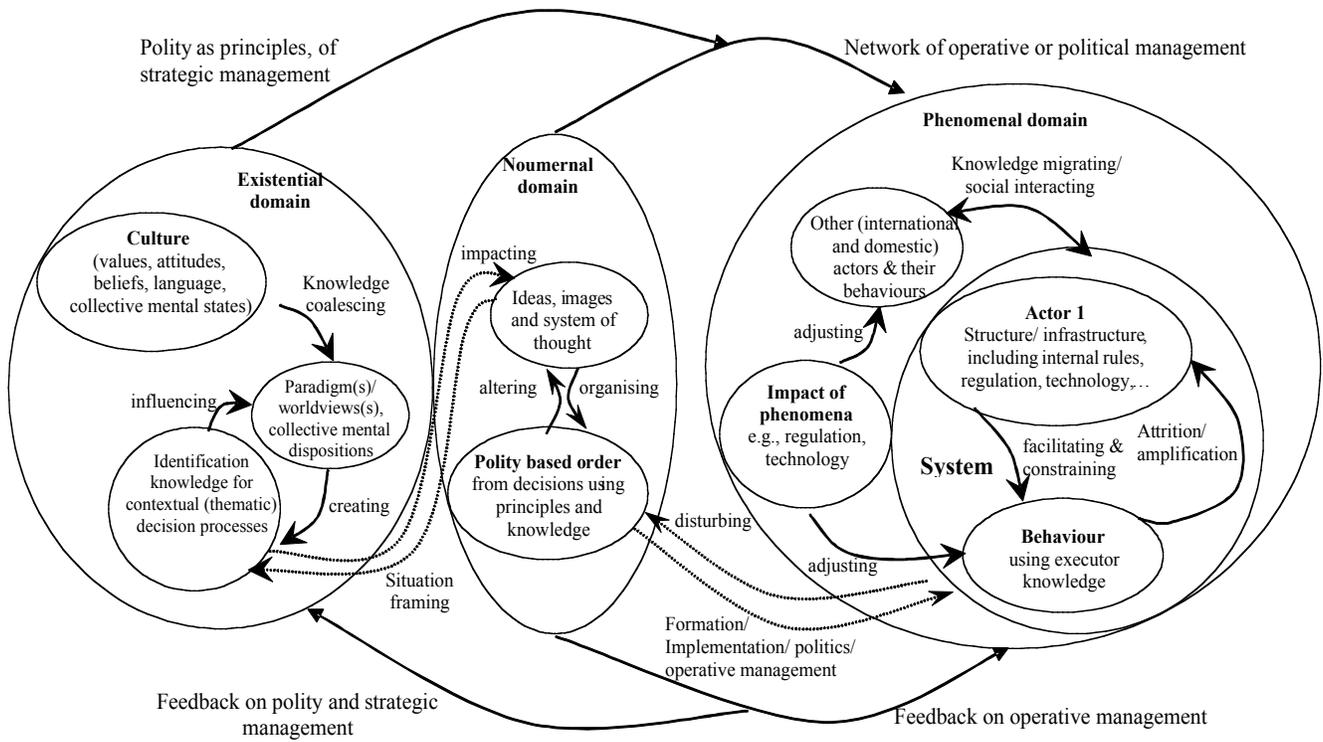March 2006

Abstract

Stafford Beer created the first, and until recently, the only approach able to explore organisational fitness using his Viable System Model (VSM). More recently, however, a new approach that comes out of a related stream of theory has also appeared called Organisational Patterning (OP) which is able to complement the use of VSM. The primary distinction between the two approaches is that the VSM is qualitative exploring structural faults, while OP is concerned with exploring the coherence and pathologies of an organisation and is quantitative in nature. The case application for OP being adopted is the banking sector in China. Major problems have arisen for China's state-owned commercial banks since the country has joined the World Trade Organisation. To be able to respond fully they first need to be able to determine their degree of coherence and the nature of their pathologies. Such ill-conditions will influence the ability of the banks to change. The approach adopted in developing OP comes from a relatively new Viable Systems paradigm called knowledge cybernetcis.

The Chinese Context

China is currently passing through two imperatives for change (Figure 1). One is the imperative from globalisation that it is experiencing through its membership of the World Trade Organisation, and the other is informatization, as information technology takes hold and pushes forward new ways of working and connecting with potential customers. While the latter has produced a very large number of studies on the impact of new technology within the last decade, particularly with the rise of the Internet, the interest in this paper lies more with the globalising imperative that constitutes a drive for change and therefore viability within a new competitive and regulative environment. This environment can be identified by distinguishing the imperative in three different types of effect, phenomenal, noumenal, and existential, as shown in Figure 2.

Globalisation
WTO membership

Organisational Fitness

New regulation

Chinese Social Revolution

Viability for competition

Organisational culture and structure

Efficiency

Effectiveness

Informatization & information technology

Figure 1: Impact of Change on China

Polity as principles, of strategic management

Network of operative or political management

Phenomenal domain

Existential domain

Noumernal domain

Knowledge migrating/ social interacting

Culture
(values, attitudes, beliefs, language, collective mental states)

Knowledge coalescing

impacting

Other (international and domestic) actors & their behaviours

Ideas, images and system of thought

Actor 1
Structure/ infrastructure, including internal rules, regulation, technology,…

influencing

Paradigm(s)/ worldviews(s), collective mental dispositions

altering

organising

adjusting

Impact of phenomena
e.g., regulation, technology

System

Identification knowledge for contextual (thematic) decision processes

creating

Polity based order
from decisions using principles and knowledge

facilitating & constraining

Attrition/ amplification

disturbing

Behaviour
using executor knowledge

adjusting

Situation framing

Formation/ Implementation/ politics/ operative management

Feedback on polity and strategic management

Feedback on operative management

Figure 2: Impact of WTO membership of Chinese Organisations

The WTO Imperative

The history of the WTO imperative has more than a generation. In the autumn of 1898, US President McKinley stated his desire for the creation of an "open door" that would allow all trading nations access to the Chinese market. It was not until December 1978 that China established its own "open door" policy when Deng Xiaoping that set in train the transformation of its economy. Prior to this China's main trading partners had been the USSR and its satellite countries. This coincided with the recognition that China needed Western technology and investment, and this meant opening its door to foreign businesses that wanted to set up in China. As an entry into this four special economic zones were authorised in southern China with tax incentives to attract foreign capital and businesses, much of which came from overseas Chinese in places like Hong Kong and Taiwan.

In 1980, China once again joined the World Bank and returned to the International Monetary Fund. In 1984, it established business relations with the Bank for International Settlements. In 1985, China formally joined the African Development Bank, and in 1986 officially became a member of the Asian Development Bank[1]. In particular, after joining the World Trade Organization (WTO), China's financial firms, especially, State-owned Commercial Banks is being put into the international market where has been being competitive.

Since the 1980s China has steadily broadened its finance sector. A group of foreign-capital and Sin-foreign joint venture financial organisations have been established in the special economic zones and coastal open cities as well as in major inland cities, and the right to do RMB business has been given to some foreign-invested banks. The Chinese government decided to enlarge the regions where foreign-invested banks are able to establish business operation organizations, from 23 cities and Hainan province to all major cities. By the end of 1999, a total of 177 commercial foreign financial banks set up branches abroad to develop international credit business. Among them, the Bank of China has the most and biggest branches.

In December 2001China also formally joined the World Trade Organisation (WTO). This has an impact on its financial system, which is experiencing some turmoil because it is unsure of what to expect from the change, or how to deal with it. Even where it may know how to respond, it lacks the structured approaches by which it can change its culture to enable that change to be developed. It is also reason why more and more numbers of large institutional organisations will be facing similar problems. Since China has membership of WTO its institutions are becoming subject to: (a) new potential competition from abroad, and (b) the possibility of taking its business abroad.

Managing Change through Structured Inquiry

The Chinese financial system is passing through transformational change as the country joins the World Trade Organisation. In complex situations like this structured inquiry through a methodology is needed to help guide the change process for organisations. Transformational change must deal with organisational culture. Organisational Development (OD) is a methodology that can help in this. However, it has some problems that need to be addressed. In this project the paradigm of OD will be developed to make it more consistent with modern systems theory and the notion of the intelligent organisation in a complex world. The new paradigm, involving the idea of organisational patterning, will then be formulated into a set of

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[1] See www.china.org.cn/e-china/banking/introduction, accessed June 2003.

tools that will be applied to organisations that are part of the banking system in China to both evaluate the utility of the new tools, while helping the change process.

Organizations today are facing complex, rapidly changing and unprecedented environments. In order to be effective and efficient, they must continuously adjust their internal configurations including structure, technology, organizing and work process, and culture. Organisational Development (OD) is a methodology that can help in this. However, it has some problems that need to be addressed. In this the paradigm of OD will be developed to make it more consistent with modern systems theory and the notion of the intelligent organisation in a complex world. The new paradigm, involving the idea of organisational patterning, will then be formulated into a set of tools that will be applied to organisations that are part of the banking system in China to both evaluate the utility of the new tools, while helping the change process.

Due to globalization of national economies and evolution of multinational corporations, OD has been increasingly practiced in organizations outside USA on recent years (Cummings and Worley, 1993). The next ideal testing ground for Organizational Development and Change will probably be in China (Sun, 2000). The dramatic transformation of China's economy since the late 1970s has drawn increasing attention from both business world and academic researchers. China's economy has grown almost 10 percent a year in the last two decades. It achieved a total of $280.8 Billion trade with other nations in 1995. The number reached $260 billion from January to September in 1999 (People's Daily, 1999a). In the twenty-first century China will be the largest producer of industrial goods and the second-largest trading nation after the USA (The World Bank, 1997).

The State Commercial banks, part of the financial system, are in particular facing transformational change as they face with new rules, regulations and competition, and their traditional ways of making decisions, underpinned by their traditional values, has to change. This implies that change has to occur at a cultural level, and perhaps the most appropriate structured methodology to assist this process is Organisational Development (OD). However, there is an argument that OD is not up to the task of assisting transformational change, and it therefore needs some assistance. In this paper we shall apply cybernetic principles to OD, resulting in an approach that we refer to as Organisational Pattering (OP).

Some Limitations of Organisational Development

Organisational Development (OD) is about 2 generations old. It adopts Nadler's (1996) idea that the system as a transformer of inputs to outputs. Such systems are seen to need to have "favourable transactions of input and output with the environment in order to survive over time" (Nadler, 1996, p86).

OD is an inquiry approach that seeks to find a balance of forces with its environment (Pugh, 1993), and if change is to occur in organisations, then it must address both *psychological* and *organisational* grounds. It was originally conceived as a strategy for large-scale cultural and/or systemic change that depends on many people accepting the need for change, and until recently was based on diagnosing gaps between what is and what ought to be (Weisbord and Janoff, 1996).

It has a paradigm that is consultant orientated and people-centred, and thus has a subjective orientation. It is concerned with intervention into problem situations to achieve change management through individuals and their relationships. It arose from behavioural psychology, applying concepts to management that were formulated from a programme run by Pugh and Hickson, and has developed with work from people like Argyris (1970), Kotter and Schlesinger (1979), and Huse

and Cummings (1985). Schein (1970) defined OD consultants as facilitators who assisted organisations to improve their inherent capacity to cope with problem situations by helping them to diagnose themselves, select their own responses, and determine their own progress.

Its intended use is "to articulate a mode of organisational consultancy that paralleled the client-centred approach in counselling and contrasted with consultancy models that were centred on expertise" (Coghlan, 1993, p117). However, at its broadest, OD is concerned with "boundaries and relationships at a number of different levels between enterprises, their stakeholders and society, and the way in which these relationships could change over time" (Pritchard, 1993, p132).

Harrison (1994) takes a view that would can be aligned with that of the *sociotechnical* school of OD thinking, in which organisation are treated as open systems within an environment, and pursue primary tasks that can be realised if their social, technological, and economic dimensions are taken into account. Harrison explains that consultants who use traditional OD tend to assume that organisations are most effective when they "reduce power differences, foster open communication, encourage cooperation and solidarity, and adopt policies that enhance the potential of employees" (Harrison, 1994, p8). To help assist organisational forms and cultures towards this ideal, they often use small group training, feedback on interpersonal processes, participative decision-making, and build on strong cohesive organisational culture. However, for Harrison traditional OD is based on a narrow view of organisational effectiveness. It "does not seem to work well in organisations that emphasise status and authority differences or in nations that do not share the values underlying development. Even where they are appropriate, traditional organisational development interventions usually yield minor, incremental improvements in organisational functioning, as opposed to the radical transformations needed for recovery from crises and decline" (Ibid., p8-9). To make OD more flexible and broaden its ability to deal with organisational problems, it must be able to deal with changes in organisational form, strategy, and culture, power alignments, political bargaining, cultural diversity (at different levels of the organisation), stability and instability.

Nadler's models that were used to formulate OD sees an organisation as a general open system connected to its environment, and a transformer of inputs to outputs. The model is referred to as the Congruence Model of Organisational Behaviour (Nadler and Tushman, 1977; 1979) because it supports the notion that organisations need to have congruency between four subsystems: tasks, individuals, formal organisation and informal organisation.

It is often the case that if an organisation is experiencing a changing environment that it must deal with, then it may have to change something about itself if it is to survive. That is, it may need to adapt. Change in the operations or structure of an organisation are usually reflected in the need to make a change in the organisational culture. It adopts a subjective rational perspective, demanding that individuals with an organisation are involved in the total change process.

Nadler takes *resistance*, *control*, and *power* to represent three general problem areas that must be addressed when change is to be introduced. Resistance to change (Watson, 1969; Zaltman and Duncan, 1977) occurs by individuals when they are faced with change situations that affect their security or stability. It can generate anxiety, can affect their sense of autonomy, and can make them alter the patterns of behaviour that have enabled them to cope with the management structures and processes. Control is required to manage the change, because according to Nadler, change disrupts the normal course of events in an organisation, and undermines existing systems of management control. Power is also a focus for change situations. Power relationships are upset and a political dynamic of change is required. This may result because people may feel that their power positions are threatened, or because individuals and groups may engage in political action because their ideological position changes.

An organisation is seen as a political system composed of individuals, groups, and coalitions, which can be seen as competing for power (Tushman, 1977). New ideologies can also influence power positions. Balances of power exist within organisations, and changes can upset these, generating new political activity that forges stable power relationships. In order to facilitate change, it is necessary to shape the political dynamics of an organisation to enable change to be accepted rather than rejected.

We may note from Checkland and Scholes (1990) the attributes of power. If we distinguish between formal and informal attributed power, we can include with formal attributes role-based authority and representative participation in decision making bodies, and informal that includes intellectual authority, personal charisma, external reputation, commanding access (or lack of access) to important information, membership or non-membership of various committees or less formal groups, the authority to write the minutes of meetings. In the same way that Harrison (1994) sees that the dominant view about OD is that it should be used to reduce power differences, so Belbin (2001) sees that formal power is not be a contributory factor to organisational processes.

The OD paradigm demands that it is not only power but also resistance to change and control that are required to manage the change process. All are seen as problems for the organisation that need to be overcome. The relationships between these problem and the actions to be taken to deal with the problems is given in Table 1.

There are one or two concerns about this table however (Yolles, 2000), over the terminology that that is used in defining the problem areas of the change process in relation to the actions. The problem of resistance to change is expressed in terms of four actions that are intended to motivate the organisation to adopt a re-orientation that can deal with the change. Thus, action (1) and (2) develop the fundamental support that is able to motivate a new orientation for the organisation. In (3) the use of social symbols can be used to share meanings through which explicit and implicit patterns of behaviour are acquired and transmitted. In (4) the creation of stability is a concretising of the orientation that has been created. Hence, Nadler's idea of the problem of resistance to change is also one of providing a re-orientation in the change for the organisation as a whole. The idea of an organisational re-orientation will subsume within it the need to reduce resistance to change.

Table 1: Generic Problem Properties of Organisations in Need of Change

Problem	Need	Action
Resistance	Motivate change	1. Assure support of key power groups 2. Use leader behaviour to generate energy in support of change 3. Use symbols and language 4. Build in stability
Control	Manage the transition	5. Surface dissatisfaction with present state 6. Participation in change 7. Rewards for behaviour in support of change 8. Time and opportunity to disengage from the present state
Power	Shape political dynamics	9. Develop and communicate a clear image of the future 10. Use multiple and consistent leverage points 11. Develop organisational arrangements for the transition 12. Build in feedback mechanisms

Consider now the problem of control. This is normally associated with a cybernetic concern. However what is referred to as managing the transition does not seem to directly relate to the control and communication involvement of cybernetics, and so the term seems wrongly applied. Rather it would seem to be the case that managing the transition expressed in terms of the actions relates more to the *possibilities of development* open to an organisation. Let us see why. The action (5) of surfacing dissatisfaction is a pre-requirement that will in part also seek the views of the membership of the organisation, thereby identifying the unrest that perturbs the organisation and enables the possibility of creating variety. Action (6) is directed at the manifestation of variety, as is action (7). Action (8) provides for the possibilities thrown up with the variety generation to be selected and instituted, and is therefore part of the dynamics of the change process.

Finally there is concern with the term power seen as the problem. Here, actions (9) and (12) are cybernetic processes that may be considered to be independent of power. Also, point (11) rather relates to an organising process than to power, and thus is a function of polity that enables the creation of order. All three points therefore are an energising process as opposed to a power one, and perhaps be better described as kinematic - an energetic movement that can be considered abstractly without reference to the source of that motion. Point (10) identifies leverage points to pressure the change. While leverage is consistent with the creation of force and the use of power, we can note Belbin's view about management without the use of power. This would enable us to try to be consistent with the subjective epistemology that OD addresses. It may be better or operate without the use of power based leverage points, and rather see this in terms of the facilitation of support. There may be a number of ways of doing this, including the use of semantic communications (embedded in Habermas' (1984) theory of communicative action) implying the accumulation of meaning for those involved in the change. The *process* of establishing this infrastructure is an adaptation of structure that can service the needs of the change, which is a kinematic process. Thus, it does seem that the word kinematics is more appropriate than power. Since it is movement, it can also be associated with political dynamics. However, these points are also connected with the manifestation of the possibilities inherent in the situation.

As a result of these considerations, we propose a revised form of OD model that provides more consistent with Nadler's proposed actions and the meanings of the terms that underpin his constructions (Table 2).

Table 2: Alternative Presentation of Nadler's Model

Problem	Need	Action
Changing orientation	Support the change	Assure support of key power groups
		Use leader behaviour to generate energy in support of change
	Underpin the change	Use symbols and language
		Build in stability
Manifesting possibilities	Manifest perturbing unrest	Surface dissatisfaction with present state
	Manifest support and variety generation	Participation in change
		Rewards for behaviour in support of change
	Introduce new variety dynamically	Time and opportunity to disengage from the present state
Energising kinematic processes	Cybernetics	Develop and communicate a clear image of the future
		Build in feedback mechanisms
	Polity	Develop organisational arrangements for the transition
	Semantic communication	Facilitate support

Social Viable Systems Theory

Social Viable Systems (SVS) theory was originally developed from the work of Eric Schwarz (1994; 1997) and Beer (1979). It adopts a subjectivist rational perspective and has implicitly drawn on board soft system such as Soft Systems Methodology (Checkland, 1980; Checkland and Scholes, 1990) and Critical Systems Thinking (Midgley, 2000; Jackson, 2000; Ulrich, 1983; Flood and Romm, 1996).

SVS has two explicitly defined components: ontology and epistemology. The ontology provides a social geometry through which topological distinctions that facilitate easier analytic analysis. These distinctions are referred to as domains of reality (already referred to in Figure 1), as illustrated in Figure 3 and defined in Table 3, discussed at some length in Yolles and Guo (2003). The epistemological aspect is concerned with the nature of the knowledge, the partiality of this knowledge being represented as content in the ontological divisions.
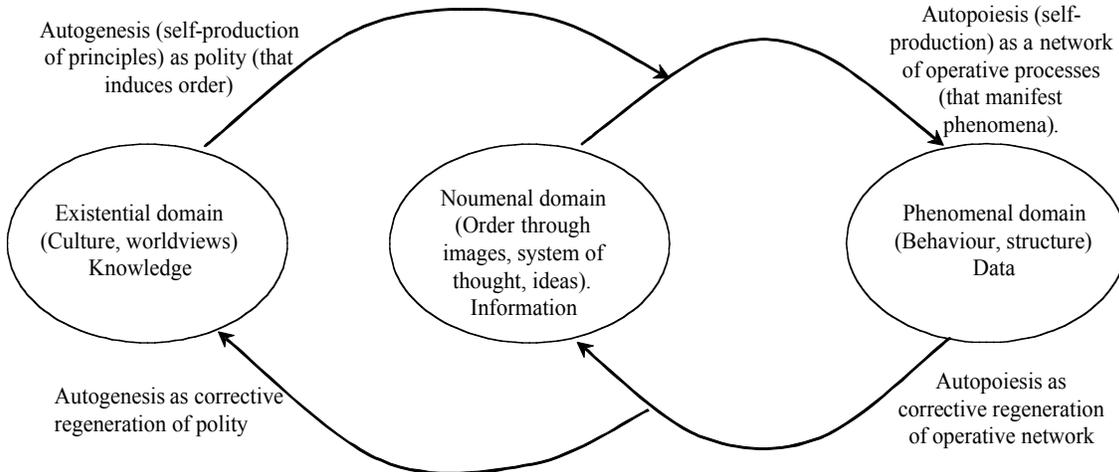
Figure 3: Social geometry of SVS model

Table 3: Nature of the dimensions of SVS

Types of Domain	Ontological Content
Phenomenal	A function of phenomenal reality that exists when material objects or events are in interaction. The perception of this is conditioned by a cognitive knowledge-based frame of reference. It is locally cognitive, and phenomena are taken to truthfully experience. The system is often a component of this domain.
Noumenal	A virtual condition of mind in which rational, symbolic or logical relational connections between conceived entities are constituted by coordinated unintegrated images or system of thought. These relate to phenomenal reality and connect with purposefulness. It is local to the experiences of the perceiver and involves interpretative rightness. Images of value and belief are maintained, partly represented through ethics and ideology. The domain is conditioned by a cognitive knowledge-based frame of reference. The virtual system is normally a component of this domain.
Existential	A function of being in which a local belief based creation of concepts and their patterns is held in worldviews (maintained through appreciative sincerity), which enable the establishment of a frame of reference, and determine what is known and their related meanings. These conditions virtual noumenal images, provides substance for them, and supports the sensory capturing of phenomena. The metasystem is normally a component of this domain.

Any autonomous system may be seen in terms of the three domains. Autopoiesis enables the noumenal domain attributes to be manifested phenomenally, subject to conditions formulated through autogenesis. Thus for example, autopoiesis is an ultimate consequence of polity and creates a potential for phenomenal social structure. However, polity is subject to the constraints of the possible, identified through the knowledge based principles that constitute autogenesis, which in SVS can be described as the manifestation of phenomenal social structure through the ontological relation[2] between the noumenal and phenomenal domains. The nature of these domains, including their generic properties, is well defined from the work of Habermas (1987) and Yolles (2005). It has developed (Yolles, 2000) from this into a potentially powerful tool that can enhance the capacity of OD to pattern organisations that are in need of change management.

System Coherence and Pathology

The SVS model is concerned with viable systems: those that are self-contained in their ability to survive, and able to support adaptability and change while maintaining their operational or behavioural stability. Viability requires social collective *coherence*, and the reduction of *pathology*.

By coherence we mean the existence of logical or aesthetic consistency in a set of parts that constitute an autonomous system. This consistency enables logical connections to occur (that are not pathological and therefore harmful to the system). It also permits the integration of diverse elements, their relationships, or their values within the autonomous system. The parts of the system that we have referred to may be ontologically distinguished across distinct forms of reality, or epistemologically differentiated within a given domain of reality. Ontological distinction implies that *within domain* consistency there should be consistency between the parts that constitute content, and *between domain* consistency should also occur across domains through their ontological relationships, as defined by autopoiesis and autogenesis. Ultimately, coherence should result in the capacity of an autonomous system to form a harmonious or credible whole.

There is a cultural argument possible for the explanation of coherence, which centres on organisational paradigms. A paradigm is a group phenomenon that has its own culture (Yolles, 1999). The concept of culture (Williams et al, 1993, p14) involves values, beliefs, attitudes and normative behaviours that are defined through belief. Normative behaviours are central to paradigms because they constitute accepted formal types of behaviour that the paradigm holders expect and accept. Behaviour that does not conform to those norms may be illegitimate or suspect. Each department in an organisation develops its own paradigm because its operations, tasks and duties are distinct from those in other departments. It is because of this that language becomes differentiated too, and a differentiated language is an indication that different paradigms exist (see Yolles, 2004)**.** These language differences can be referred to as a matalanguage (Koestler, 1967) because which within the paradigm offers a common local way to communicate meaning of situations that the paradigm holders are exposed to and which is specifically relvant to its operations. This is a notion supported by Kyberg (1968, p7), for instance, who tells us that whenever we talk about something formally defined, we must involve a metalanguage. Since the paradigm a cultural phenomenon, it should also be reflective of the organisational culture. However, if this is to occur, then this requires close association between the different departments, at least through communications, so that mutual meanings are developed across the paradigms. When this occurs, so the organisation may be classed as being more coherent.

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[2] In chapter 7 we shall explain that the ontological relation between the organising and behavioural domains is one of "autopoiesis".

Hence, coherence tends to refer to global conditions (Yolles, 2005), like the whole, while pathology tends to express more local conditions that can affect coherence. Pathologies occur when individuals and groups in a social system are prevented from autonomously regulating their collective existence in a way that opposes systemic viability (Yolles, 1999). Pathology may not only be explored in terms of groups, however, but also in terms of any ontological classification. Thus for instance, the reality of one group can be differentiated from that of another, and this distinction can then be classed as an ontological one[3]. However, ontological distinction has, in Yolles's (2005) SVS model, been defined in terms of organisational properties as will be depicted in Table 5.
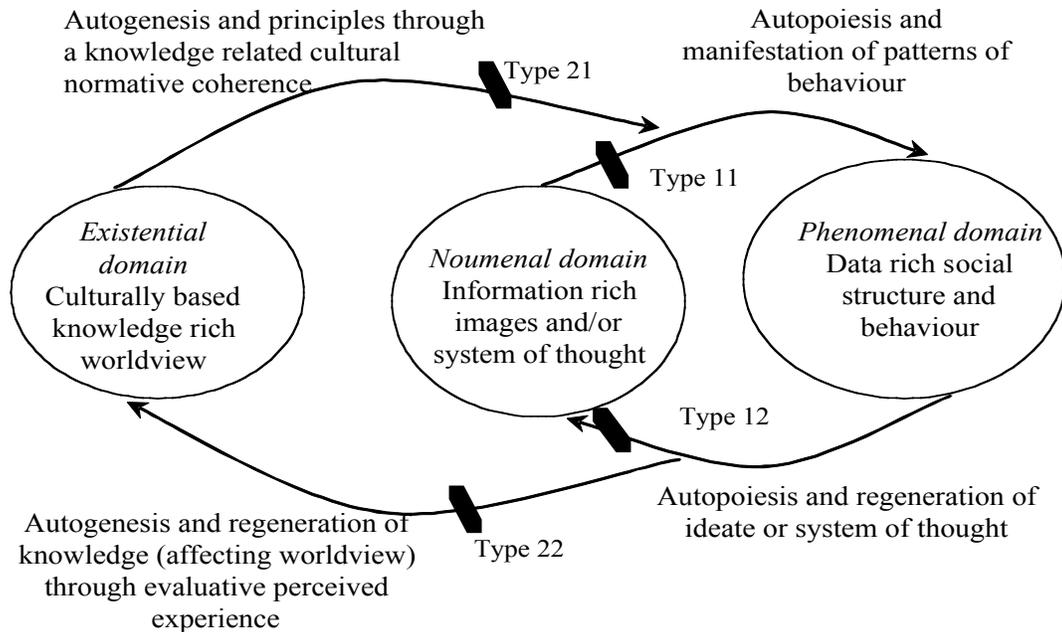
Organisational pathology has been explored by Lyden and Klengale's (2000), for instance, who found that they have numerous symptoms that include barriers to open communications. The major symptoms that they list as being common are: declining profits; decreasing productivity; increasing absenteeism; barriers to open communication; exclusively upper echelon in all decision making; lack of employee commitment to the organisation; low levels of motivation and morale; organisational reputation of no employee interest; existence of unethical behaviour; lack of goal setting; lack of mentoring; lack of development and training programmes; and lack of trust among employees. In order to assess the extent of the pathology, they recommended that questions should be put to a workforce about their perception of: internal communication; employee participation and involvement; employee loyalty and commitment; staff morale; institutional reputation; ethics; recognition of employees' contribution; alignment of corporate, department, team as well as individual goals; leadership; employee development opportunities; and resource utilisation.

Another approach that uses the idea of pathology is Drama Theory (Howard, 1999), which explores through the theatre metaphor conflict development. It postulates four types of pathology. In pathology 1, an agent (the character) deliberately fails to communicate in its interaction with others leading to conflict formation. In pathology 2, characters find that their aspirations differ, so that their differences are contested. Strongly held ideologies reinforce this contestation. In pathology 3, once a potential conflict has arisen, the characters get "locked in" through to it resulting in emotional momentum. In pathology 4, a situation is not properly resolved since certain characters have unwillingly accepted a solution they aren't reconciled to.

Habermas' (1987) also considers the notion of social pathology used in describing his *colonisation of the lifeworld*, and Beer (1979) worked with the idea of autopoietic pathology. Other forms of pathology can also be identified (Yolles, 2005) that are relevant to viable systems theory, and these include like anticipatory contradiction and projective anticipation, political paranoia, and paradigmatic schizophrenia. It is possible to define pathologies in terms of the social geometry of SVS, and this is illustrated in Figure 4 and explained in table 4. For simplicity we have combined the unconscious cultural state and disposition.

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[3] Ontology is defined as an explicit formal specification of how to represent the objects, concepts, and other entities that are assumed to exist in some area of interest and the relationships that hold among them.

Autogenesis and principles through
a knowledge related cultural
normative coherence

Type 21

Autopoiesis and
manifestation of patterns of
behaviour

Type 11

Existential domain
Culturally based
knowledge rich
worldview

Noumenal domain
Information rich
images and/or
system of thought

Phenomenal domain
Data rich social
structure and
behaviour

Type 12

Autogenesis and regeneration of
knowledge (affecting worldview)
through evaluative perceived
experience

Type 22

Autopoiesis and regeneration of
ideate or system of thought

Figure 4: Transverse psychological model of the collective showing type 1 and 2 pathologies

The first of the types of pathology (type 11 and 12) that we shall refer to occur when autopoiesis is blocked, and this can result in disassociative behaviour that has little reference to subconscious images. When this occurs, behaviour may be influenced directly by the unconscious. The second type of pathology (including type 21 and 22) that can occur is when autogenesis is blocked, so that normative coherence cannot develop within the cultural fabric of the plural actor, in part because learning is not possible. This has major implication for the way in which patterns of behaviour become manifested. Micro-variations to this can occur by defining two forms of each type of ontological pathology, as illustrated in Table 4, as types 11, 12, 21, and 22. An example of the type 11 problem might be when recurrent patterns of behaviour occur independently of subconscious constraint but responsive to the instinctive or emotional unconscious. In the case of social communities that have cultural instability (where their may be a plurality of shifting norms), this non-coherent and perhaps gratuitous/un-self-regulated behaviour may simply respond to the instinctive or emotional needs of individuals in that community. When type 1 and 2 pathologies occur together, behaviour is purely responsive and determined from structural capacities. Table 4 suggests the composite possibilities that can arise with the combination of different microscopic ontological pathologies.

Organisational Sociality

Let us return now the domain properties in SVS. In Table 5 the domain properties of SVS have been expressed in terms of a set of sociality properties that constitute its orientation, rather equivalent to the personality of an individual (Yolles, 2005). The first column concerns the following cognitive properties: technical cognitive interests connected to work that may be associated with some form of creation; cybernetical cognitive purpose is connected to intention and implicitly involves time through feedback if nothing else; and social properties are connected to the formation of something. This suggests an idea of something in motion, for which we adopt the metaphor *kinematic*. We recall that this word refers to something that is in motion, and that is considered abstractly without reference to the source of that motion.

Table 4: Nature of the ontological pathologies

Pathology Type	Nature		
1 (11 and 12)	Can result in disassociative behaviour that has little reference to noumenal images or systems of thought. When this occurs, behaviour may be influenced directly by other unconscious factors. Type 11 relates to phenomenal image projection, while type 12 to an ability to have a feedback affect.		
2 (21 and 22)	No changes in the normative coherence can develop within the cultural fabric of the plural actor. In type 21 existing knowledge cannot have an impact on the autopoietic loop, while in type 22 learning is not possible. This has major implication for the way in which patterns of behaviour become manifested. An example of the type of pathology might be when patterns of behaviour occur independently of noumenal constraint, but responsive to other unconscious influences.		
	Associative Type Combinations		
	T11	**T12**	**T21**
T12	No phenomenal image projection or feedback resulting in direct link to existential domain		
T21	No knowledge development/ learning and no phenomenal image projection. Feedback cannot be responded to.	No feedback resulting in regeneration of noumenal image or system of thought, and no learning process is possible.	
T22	No phenomenal image projection, and no possibility of coherence through learning capacity.	No regeneration of noumenal image or system of thought, and no evaluative process deriving from experience.	No influence of knowledge or knowledge development (i.e., no learning or reflection). Image and phenomenal image projection cannot develop.

Table 5: Typological Dimensions of the Organisation

Cognitive Properties	Organisational Sociality		
	Kinematics (through energetic motion)	**Orientation** (determining trajectory)	**Possibilities** (through potenbtial development)
Interest	Technical (work)	Practical (interaction)	***Critical Deconstraining (emancipation)***
Purposes	Cybernetical (intention)	Rational (logico-relational)	Ideological (manner of thinking)
Influence	Socio (formation imperative)	Base (belief imperative)	Politico (freedom imperative)

Since the kinematic classification relates to work, intention, and formation, it may be seen as being representative of "viability in action". Work knowledge conditions knowledgeable action, and may be explored by examining how work processes change with the introduction of new knowledge. Measurements for this control process are qualitative, requiring an inquirer to search the local environment for ways in which knowledge has been applied (directly or indirectly) to varieties of situation. Social influences represent knowledge about the way in which social processes operate. This dimension can perhaps be measured not in terms of social meaning, but in terms of the reticence that actors have to the introduction of new social meaning.

Consider the second column now. The first cell relates to practical cognitive interest that is a function of interaction, and enables people in the organisation to work together in a particular way. This can be taken with logical and relational aspects of the rational cognitive purposes that orient the organisation through its rational base and nature of the interactions that can occur,. Also the orientating cultural belief system of cognitive influence can be added in, all contributing to an organisational *orientation* that determines its present and future trajectories. One metaphor for organisational *orientation* leads us to the notion of the study of an organisation's formative

orientation within the complex that it creates for itself, and that determines its present and future trajectory.

We have said that orientation is a classification concerned with interaction, logical and relational attributes, and beliefs. These are all connected with what we may call relevant others, that is those other actors that are relevant to a situation from the perspective of an inquirer. Interaction knowledge conditions knowledgeable action (action that results from knowledge), and might possibly be explored by examining how interaction processes change with the introduction of new knowledge. Cultural cognitive influences can be evaluated by examining beliefs, values and attitudes (cognitive organisation). One way of doing this may be to examine individual and group resistance to new classifiable patterns of cognitive organisation within a compound actor. The classifications should be indicative of beliefs that limit the possibility of variation and variety in the organisation.

Finally, in the third column, we have emancipation, manner of thinking, and freedom, suggesting that by releasing greater potential to individuals or groups the *possibility* of greater organisational viability is ultimately enabled. This can liberate more possibilities for the organisation. Let us consider these three classifications a little more fully.

The possibilities classification is concerned with the liberty essential for the creation of variety. Thus, variety generation may be one way of evaluating the *possibilities* dimension of an organisation. We can now attempt to propose specific approaches to measurements about an organisation's possibilities, which function as attributes of variety generation. Knowledge about emancipation may be determinable through in-depth questioning of relevant others. It may relate to the structural violence that may be believed to exist within an organisation. This is reflected, for example, through the rules that affect the liberty of staff, their degree of empowerment, or their degree of potential to define their own roles. It may be possible to measure this qualitatively by obtaining perceptions of the equity among different sets of rules that relate to distinguished groups. Manner of thinking relates to the ideological and ethical attributes of actors, and can be explored through in depth questioning. It filters and restricts the way that information is considered (Midgley et al, 1998).

These ideas have meanings that are able to describe aspects of the viability of organisations in a holistic rather than piecemeal way. Further, it seems that there are measurable qualities and quantities that may be able to produce a complete profile of an organisation and its capabilities within a given environment. This could tell us more about an organisation than a set of different individual explorations intended to address a particular problem through the application of a particular methodology.

An illuminating illustration of these terms is available within Organisation Development theory, and it suggests that there is more to this idea of patterning than hypothesis. Change could be expressed in terms of resistance to change, control and power was wrongly described, and that a more representative way adopts the terms organisational change re-orientation, energising kinematic processes, and manifesting possibilities. It therefore not only provides an OD example for the application of organisational patterning. It also illustrates the possibility of further developing OD by taking into account other properties of VST that are not considered to any extent in OD, like for instance ideology, ethics and the development of potential.

It is now possible to express the OD modified representation of Table 3 with an indication the extent of patterning that OD operates with (Table 6). Let us explain this briefly. Cognitive influence is linked to the creation of knowledge. So, social kinematics is related to providing

people with an image of the future that will act as a basis for change motivation. Cognitive purposes are local and involve politics that enables polity. In cybernetics kinematics, communication must be logically enabled through the social design; that is formal accessible channels of communication should be created. As part of this, feedback must also be seen as an essential component of the logical design. Transition processes must also be logically designed so that new structures can materialise within which people can work. This is the same for organisational arrangements for the transition. Facilitating support is also a political process that links to control and logical communication. OD ties into technical cognitive interest kinematics as far as it requires that people actually use communication as a part of their designated work profile. The potential for communication may not be adequate. Motivating routines must be established in which people take communication to be important part of their work processes.

Table 6: Extending OD through Organisational Patterning

| Cognitive Properties | Organisational Sociality | | |
	Kinematics (through energetic motion)	**Orientation** (determining trajectory)	**Possibilities** (through potential development)
Interest	*Technical* Routines for communication Work that engineers the change process.	*Practical* Symbols and rituals should be harnessed; energy of leaders should be directed; appropriate behaviour should be encouraged. Interactions that maintain the direction of the change are essential.	*Critical Deconstraining* Rewards for behaviour; disengage from present state. Emancipation from the current state and empowerment enabling people to contribute to a new future.
Purposes	*Cybernetical* Through intentionality for the future, to provide logical processes of communication and feedback; design of transition processes; organisational arrangements for transition; facilitate support	*Rational* Key power group support Build in stability processes Develop and formulate objectives/goals for the change	*Ideological* See dissatisfaction in ideological terms; mobilising change through participation and the facilitation of image. Clarification of what constitutes a politically correct approach for dealing with the change process.
Influence	***Socio*** Image of the future	*Base* Knowledge about the current state and its future is important, and removal of myths is also essential. Use of language, and a redefinition of identity should be harnesses to direct the organisation.	*Politico* Values that create groups, hierarchies, leaders, power positions, and power relationships. It establishes the basis for freedoms that provide a new future for the organization in a very different environment, and will ultimately determine through normative constraints on structure what behaviors will be possible.

Orientation is affected by cultural purposes in that the nature of the language used will provide something of an image and meaning to participants in the change. For cognitive purposes, the rational aspects of orientation formulate key power group support by the political creation of that support (with the help of the appropriate language). Stabilising this support is an important feature of change management. The practical interest aspect of orientation involves the adoption of symbols that people can apply in the technological communication that they establish. Practical interests are facilitated by the provision of say the use of technology in creating networks of communication, or more simply just schedules for regular meetings. These clearly link to technical interests in that for instance, so that people should attend a scheduled meeting. Leaders

should have energy that can be put at the disposal of the change. Their behaviour should also be coincident with the perceived needs of the change process.

No cognitive influences in the area of possibility for change are indicated within OD. They could have involved, say, awareness that an existing despotic political culture does not provide sufficient empowerment for participants in a change to help carry it through, and that a new more open political structure is required. The ideological attributes of organisational potential for change occurs through ensuring that people become dissatisfied with the logical or political basis of the organisation, and their beliefs can be developed or harnessed to encourage them to want to participate in change. Ethical considerations that are part of ideology do not form part of the OD paradigm. Within critical deconstraining, people are provided with rewards for their behaviour in participating in change. These rewards may or may not take the form of exchange media (like money) of power; but they should contribute to an increase in their liberation thus enabling them to see they should disengage from the present state. Part of this process could also be the ability for people to decide their own constraints about their behaviour.

Organizational theory and managerial wisdom suggest that, in order to survive and flourish, organizations must be compatible with their environments, which include all the external social, economic, and political conditions that influence their operations. Within the past 20 years of economic reform, Chinese state-owned commercial Banks operating environment has been changed dramatically. Changes in consumer and industrial markets, finance system, labor market, government regulations, competition, and performance management have put commercial banks under great pressure to change their internal management system.

In Table 7 we also summarise what can be expected from the study, in terms of each sub-domain.

Table 7: Summary of sociality properties identified from respondent beliefs

Cognitive Properties	*Kinematics* (through energetic motion)	Direction (determining trajectory)	Possibilities/potential (through variety development)
Interest	**Technical**	**Practical**	**Critical Deconstraining**
	Development of manifest control processes Routines for communication. Causal explanations. Use empirical-analytic methods.	Predictability of control processes. Use of rituals and symbols. Harnessing energy of leader. Encouraging appropriate behaviour. Seeking descriptions of perceived situation and practical understanding.	Contributions to knowledge and knowledge processes. Political freedom to contribute knowledge and knowledge processes, and personal learning. Rewards for behaviour; disengage from present state. Use critical approaches.
Purposes	**Cybernetical**	**Rational/Appreciative**	**Ideological**
	Logical processes of communication and feedback; Design of transition processes; organisational arrangements for transition; facilitate support	Clear and transparent objectives or purposes. Key power group support. Build in stability processes. Encourage reflection and aesthetics.	See dissatisfaction in ideological terms (e.g., discrimination and marginalisation). Mbilise change through participation

Influence	Socio	Base	Politico
	A basis for images of the future in the management of social processes is important. An understanding of the cybernetic purposes is also important to enable technical aspects of the organisation to materialise. Is important. Objectives play an important part here, and must be understood.	Use of language and related concepts that can give meaning to knowledge (metaknowledge). It supports myths that can misdirect the organisation. The propositions of the organisation are defined here, those that give meaning to its existence. Organisational mission and objectives derive from this.	Creates a culture's normative boundaries through its beliefs, values, symbols, stories, and public rituals that bind people together and direct them in common action. These determine the creation of ideological/ethical and power constraints. They connect to the structure of an organisation and the way that power is distributed and used.

The Study

In order to evaluate the utility of the organisational patterning matrix in Table 6, it was decided to create a measuring instrument. This converted the domain properties into a set of questions which were to be put to potential respondents in the Chinese Commercial Banks. There were 52 questions, and they were formulated in English at first, triangulated, translated into Chinese and independently translated back into English so that comparisons could be made to test validity, and tested in an initial pilot study. When the questionnaire was ready, it was sent out to 800 managers and key staff, or which 521 were returned. The distribution occurred across 4 Chinese State owned commercial banks in 3 region of China. In total there were 12 organisations, counting bank branches separately, and thet banks included were: Bank of China (BOC), China Construction Bank (CCB), ABC, ICBC. The 3 Chinese regions covered were: Huabei, Huanam, Dongbei. The returns were relatively high compared to most western questionnaires since personal connections were made with each respondent who then became obliged to respond. This obligation is a function of Chinese culture.

It was assumed that respondents would complete questionnaires according to their worldview, which within an organisational context would be conditioned by organisational culture. This culture is also reflected in the departmental paradigm. Responses therefore constituted a cultural map that reflected beliefs and views of different people in the organisations that relate to the organisation and its parts. The intention was to seek consistency and distinctions in the answers that were supplied, thereby providing, by statistical inference, an indication of the viability of each bank. The outcome, it was hoped, would demonstrate that there were distinctions between the each of the four commercial banks that depended on their organisational and regional culture.

The data analysis was undertaken through the well known statistical package for the social sciences SPSS. To do this the data was divided up into two classes: within region and across regions. The intention for this was to try to normalise out the effect of the regional culture on the organisational culture of the bank as a whole.

The within region study examined only one region, that of Huabei. Here four branches were selected, one from each of the banks. The across regions study looked at the results from all of the banks with their branches accumulated together. This would able to statistically explore differences between regions.

Two types of statistical inference were undertaken, variance analysis and correlation analysis (see Table 8). The statistical analysis that was undertaken is considered to generate inferences. Two inferences that will be considered in relations to this study are organisational *coherence*. One of

the inferences is determined from the correlation analysis that occurred between departments in each of the banks examined. A high level of coherence suggests that the bank has a cohesive organisational culture. That is, the local paradigm of each department will be reflective of the organisational culture overall, and the beliefs, attitudes and values with therefore be related. The greater the difference in cross correlations evaluation, the less similar will be the strings of responses by each department. Prior to this it was argued that each department has a primary task property that can be slotted into the OP table, creating an expectation that certain patterns of correlations would therefore result from the correlative comparison between the departmental strings within a given bank. The correlation values where then used to indicate the degree of cohesion within each organisation.

The second logical inference from the study is that the variance analysis will suggest organisational *pathologies*, determining where particular problems lay in the different banks and different regions that were contrary to the principles of OD and knowledge management. From the variance analysis we are in particular able to infer a relationship between the distinct cells in the OP matrix over different branches of the same organisation within a given region.

Table 8: Summary of statistical nature of coherence and pathology

Inference	Rationale
Coherence	Correlation analysis between departments in each of the banks examined, compared according to whether departmental purpose is fundamentally existential, noumenal or phenomenal. High level of coherence implies bank has a cohesive organisational culture (the local paradigm of each department will be reflective of the organisational culture overall, and the beliefs, attitudes and values with therefore be related). The greater the difference in cross correlations evaluation, the less similar will be the strings of responses by each department. Each department has a primary task property that can be slotted into the OP table, creating an expectation that certain patterns of correlations would therefore result from the correlative comparison between the departmental strings within a given bank. The correlation values can then be used to indicate the degree of cohesion within each organisation.
Pathology	A variance analysis infers relationship between the distinct cells in the OP matrix over different branches of the same organisation within a given region. Each cell was defined as a group, and pathologies are inferred to exist when the variance between each group is distinct: i.e., there is no homogeneity of the variance.

The capacity to undertake empirical studies to explore the relationship between the pathology and cohesion in an organisation has not previously been attempted, and provides a contribution to new knowledge in this thesis. The results suggest that the methodology employed in this questionnaire study could be successfully applied to a sample of Chinese State Owned Commercial Banks (SOCBs). A related questionnaire can be used for a further study, which still explores OP.

The correlation analysis was created by adopting a predefined sequence of questions and sequencing the responses in the same order for different structural components of the banks. The only statistically relevant structure was deemed to be department, and so department responses were averaged. Where the averaging process was statistically relevant, cross correlations were conducted across departments. The results created inferences that reflected on the coherence of a particular bank.

The Needs for Organizational Change in China's Banks

OD is a methodology that is designed to assist the structuring of complex problem, thus clearing away the mess that surrounds understanding. It is clear that the turmoil associated with the Chinese banking institutions is in need of finding such direction within itself. The application of organisational patterning within an OD context takes the idea of managing the change process a step further than was possible with traditional OD. It should be able to assist banks to evaluate their kinematic processes, thus determining where they are currently placing their energy and resources, and evaluating whether this is going to satisfactorily assist their change processes. This implies that a vision for the change in the future has been formulated and become part of the organisational paradigm. If it has not, then action research approaches like syntegration (Ahmad, 1998) or Whole Systems Change (Iles, 2001) may be necessary to assist this. It then needs to develop its objectives for change in one way or another that can be formulated in a controlled way. These should be well understood by members of the organisation, and supported in the way that they are being developed. Opportunity must be available for dialogue and discussion over these. This can be facilitated through technical aspects of the kinematic process, linked to the work that engineers the change process.

The banks in a turbulent new change situation also need a trajectory that determines where it is going. It needs first to be sure about the knowledge that it has about the change situation. This means that it should understand what is happening and the potential of that change. It needs to make sure of that the knowledge it has about the current state and its future, and myths must be identified and removal. The use of language that reflects knowledge, and a redefinition of identity should be created and harnessed to direct the organisation. Key power group support is essential within the organisation, so that it can stable processes of change. Part of this process may be to formulate objectives/goals for the change process. More practically, symbols should be harnessed to remind people of the nature and direction for change, and the energy of leaders should be directive. Appropriate behaviour should be encouraged, and where appropriate new rituals should be encouraged. Old rituals should be discouraged, perhaps through the creation of new structures. Interactions between people and structural parts of the organisation that maintain the direction of the change are essential.

There is also the dimension that directs the future possibilities for the organisation. It can involve the creation of new values that are responsible for the creation of groups, hierarchies, leaders, power positions, and power relationships. It establishes the basis for freedoms that provide a new future for the organization in a very different environment, and will ultimately determine through normative constraints on structure from which behaviours will derive. There is a political dimension of change that enables the organisation to see dissatisfaction in ideological terms. This is often a new way of seeing Ideology within the context of the organisation. Change can be motivated and mobilised through the participation of its stakeholders, and by formulating and promoting an image for the future. Clarification of what constitutes a politically correct approach for dealing with the change process should not be seen as constraining processes, but one that promotes ways of addressing the future without bias or prejudice being applied to those in the present. It gives a politically correct view of stages of historical development, in respect of interaction with the external environment and dealing with new competition. To encourage the viability of organisations, people must be able to redefine their behaviours in terms of the new structures that develop. As such they must liberate themselves from the constraints imposed by role and power structures, and they must learn through precipitation in social and political processes to control their own destinies. Rewards for new forms of behaviour can be provided, and these may not be based on monetary or power based principles. The reason is highlighted by Habermas (1987) who argues that money and power are steering media that can interfere with the

(lifeworld) communication process and the meanings that underscore and thus help define direction and future. These approaches should enable the organisation to disengage from the present state of the organisation. It is through a form of emancipation from the current state and through the use of empowerment that people can contribute to a new future and modify their behaviours.

These features may be implicitly embedded in traditional OD, but by the redefinition of Nadler's table to create an organisational pattern for the future, they can be established as a "menu" of change attributes that have to be considered during the change situation. In due course this will be applied to banking organisations to evaluate their change process, and the success of the change into a new future.

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