

SYNERGY: A SPIRITUAL ISSUE IN THE CONTEXT OF CHANGE MANAGEMENT SYSTEMS

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Nomology, a decision science system for explaining qualitative structures is shown to have three dimensions: *adjusting*, *convincing* and *committing*. Examples of the system include Maslow's hierarchy of needs, Jung's thinking types, the Systems Development Life Cycle, and the Oriental systems approach WSR. The *convincing* and *committing* systems combine into one system of *developing*, which is shown to be associated with autopoiesis and to have the energy of negative-entropy. Two cases of *adjusting* are shown to be linked: (1) body, mind, soul and spirit, and (2) direction, mission, vision and synergy. The *adjusting* and *developing* systems combine into a system of *change management*, examples of which include the Twelve Step programme of Alcoholics Anonymous and from Information Systems development.

NOMOLOGY: A CONTEXT FOR EXAMINING SYSTEMS

Nomology, the science of the laws of the mind (Hamilton, 1877, pp. 122-8) is a meta-model whereby issues such as change management, synergy and spirituality can be considered. The basis of Nomology is that decision-makers tend to analyse problems which involve qualitative distinctions by breaking them into activities, or categories of behaviour, which are each important in themselves and follow natural sequences. This is a natural approach that the mind uses when addressing a problem where there is no clear external frame of reference. The first categorisation is about the degree of uncertainty involved. What sort of problem is it? High uncertainty will require some sort of planning activity, low uncertainty some form of putting plans into effect. The second dichotomy relates to where is the main focus of the problem? Is it more to do with people, or more to do with structures, organisations, i.e. the "place" where some system is based? These categorisations and the language associated with them are very general, and are applicable to many different situations. The fundamental generic set of adjustment activities is shown in Figure 1. There are numerous examples of adjustment in management based on these general activities (Brugha, 1998a) and on eight particular activities (Brugha, 1998b).

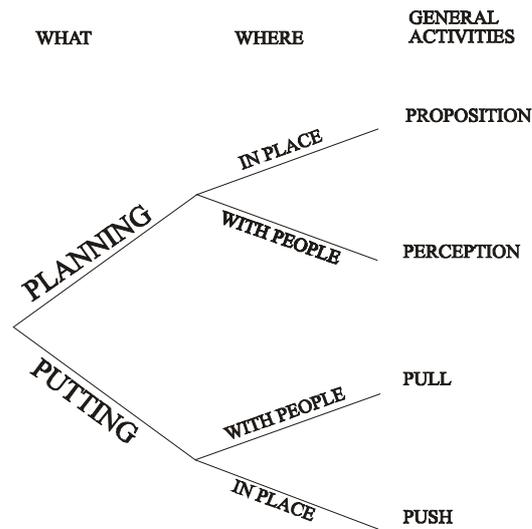


Figure 1. The four general kinds of activity

Adjustment is distinguished from development decision making in the case where the decision maker owns the process and consequently cannot "pull" himself or herself to make the decision. Hence the pull activity in Figure 1 disappears. The emphasis then is more on building on levels than on finding balance between different activities. Development decision making can be introverted or extroverted (Brugha, 1998c). The first introverted level is the somatic, and refers to tangible things such as needs. Then there are psychic (psychological) aspects such as preferences. Finally the pneumatic level refers to values or higher goals. Hamilton (1877) introduced the terms cognition, affect and conation as a triad of mental activities corresponding to the somatic, psychic and pneumatic levels. Thus Nomology takes a broader view than cognition. It incorporates feelings, but also includes the more neglected area of will corresponding to the highest level of introverted **commitment**. Soma, psyche and pneuma come from the Greek words for body, soul and spirit (literally wind).

The extroverted dimension corresponds to stages of **convincing** and starts with technical or self-orientated issues. Then it relates to other people, and finally it takes account of situations. The introverted and the extroverted combine as two dimensions and lead to the construction of nine levels, stages of activity and types of thinking and the reconstruction of Maslow's (1987) hierarchy of needs and Jung's (1971) orienting functions (Figure 2).

The Systems Development Life Cycle (e.g. Whitten, Bentley and Barlow, 1989) fits this nine phase structure of convincing within committing (Table 1). A central claim of Nomology is that adjusting, convincing and committing comprehensively describe the three dimensions of how the mind structures decisions. One proof is that so many independent and unconnected qualitative structures can be explained in terms of those dimensions. These come from different fields such as management, philosophy, marketing, multi criteria decision making cases, and information systems. A powerful validation comes from an East-West parallel. Brugha (1998d) has explored the commonalities between Zhu's (1998) Oriental systems approach, WSR (*wuli*, *shili* and *renli*) and corresponding western concepts. He suggests that *wuli* corresponds to *adjusting*, *shili* to *convincing*, and *renli* to *committing* and that Zhu's (1998) description of a hydro-engineering case in northern China showed that the project followed a Systems Development Life Cycle but with an adjustment process occurring within each of the nine stages.

		Convincing Stages		
		Technical Self	Others End-users	Situational Business
Committing Phases	Somatic Have / Need	Physical / Intuiting	Political / Recognising	Economic / Believing
	Psychic Do / Prefer	Social / Sensing	Cultural / Learning	Emotional / Trusting
	Pneumatic Are / Value	Artistic / Experiencing	Religious / Understanding	Mystical / Realising

Figure 2: Levels of developmental activities and types of thinking

Table 1: Systems Development Life Cycle activities

Introverted Orientation	Extroverted Orientation		
	Technical	Others	Situational
Somatic	Survey project scope and feasibility	Study current system	Define the end-user's requirements
Psychic	Select a feasible solution from candidate solutions	Design the new system	Acquire computer hardware and software
Pneumatic	Construct the new system	Deliver the new system	Maintain and improve the system

The distinction between adjusting as externally owned and developing (committing and convincing) as owned by the decision maker is seen to lead to development being constructivist and based on levels. This is easily understood in terms of the individual. If a country's politics is insecure an individual will be nervous about setting up a business; if one does not have a job one might be worried about taking on the responsibilities of a family. The breakdown of stability at lower levels and the collapse of one's situation is akin to entropy or the escape of energy. The building up of such layers of energy systems could be described as negative entropy. When the ownership belongs to a group the sense of building on levels and the need that the lower levels be secure becomes an issue for the group. The sense of integrity that a group needs to develop or to be self-creating has been named autopoiesis from the Greek words auto (self) and poiesis (creation, production). It has been applied both to biological systems and to social systems who are bound by the emotion of love (Maturana and Varela, 1992; Maturana, 1988). It is clear that the more mutually supporting people are in an organisation, i.e. the more committed and convinced they are about what they do, the less entropy or energy loss there will be. Central to the development concept of ownership is the idea that this cannot be forced from outside. This has ethical consequences for the management of systems (Brugha, 1998e).

THE LINK BETWEEN SYNERGY AND SPIRIT

Because Nomology is a meta-model of how the mind works it can be used to explore the meanings of terms such as synergy and spirit. In the context of Nomology language is seen as labels to be put on categories of activity so as to differentiate them from other categories. Labels for similar things can change between contexts from being more generic for a field to being more grounded for a particular case. Categories contain sub-categories; hence the level of abstraction is important. To explore a term such as **spirit** one would normally start by asking "spirit as distinct from what?" The answers might be **body** and **soul**. Doing it again with the word **body** might suggest the word **mind**. (See Maturana and Varela, 1992 for a consideration of the mind-body problem.) The question then arises: how do "body, mind, soul and spirit" differ from "soma, psyche and pneuma"? Is the former an adjustment concept and the latter a commitment concept? If they are the same why

have the two languages co-existed for so long? The nomological exploration of “body, mind, soul and spirit” is done by relating them to the generic adjustment terms: proposition, perception, pull and push (Figure 1). If they relate properly there should be a consistent qualitative difference between each corresponding pair. This should reflect itself in meaningful phrases linking each pair such as “we propose in the body”, “we develop perceptions in the mind”, “we are pulled in our soul”, and “we push with our spirit”. Some of these phrases seem to clarify the links, others seem to challenge our understanding of terms such as soul and spirit which we may have tended to compartmentalise as “terms which have something to do with religion”.

Where there is difficulty making a link between terms that seem to have a parallel it can be useful to find a bridging set. This is done by exploring what we mean by a phrase such as “we propose in the body”. In this case it means that we consider what we are able to do, at a very basic level: our **capacity**. If this is a meaningful bridge there should be corresponding terms for the other three categories. Going beyond the capacity of the body into the area of the mind corresponds to working on our **capabilities**: the aspect of training and educating our perceptions. Our capacity and capability focus on the aspect of what we should or will do. To find a corresponding bridging term to elucidate the phrase “pulled in our soul” requires a deeper understanding of the dynamic that mediates this feeling of duty. In this case it is our sense of **community**. Extending it to the fourth quadrant in the same way produces a term such as **contribution**. Together capacity, capability, community and contribution provide a sort of road map for what one would do with a useful life.

Further bridges can help to fill out the meanings inherent in each sector. Using a shorter focus than the “useful life” one could see the bridge between capacity and body as one’s **energy**. One’s capacity is limited by the energy one has. Correspondingly, how much we are capable of doing at any time depends on the amount of **equanimity** that we have in our minds. A corresponding bridge between community and soul would be the effort that one can make. The more support we have from our community the more **effort** we are able make in response. Likewise, ultimately the contribution that we, at a deep level, i.e. in our spirits, make to society depends on our **effectiveness**. Another test of such sets is in the context of the balances that should exist within them. The effort that we can make cannot be out of balance with the energy we have. If we do not have equanimity we cannot be

effective. A useful model for assessing the balance between the different categories of activity is given in Figure 3.

Another set derived from Johnsen (1993) is: **direction, mission, vision and synergy**. Before an organisation can have a mission it must agree on its direction. Clearly mission is a perception concept, and vision exists in the context of a community. If one thinks in terms of direction, mission and vision as a progressive focusing of one's energy, equanimity and effort, then it is clear that full effectiveness is reached when the many strands are brought together, as in **synergy**. This particularly makes sense if we see one's spirit as the ground in which this is done, where all the internal conflicts and contradictions that destroy synergy are resolved.

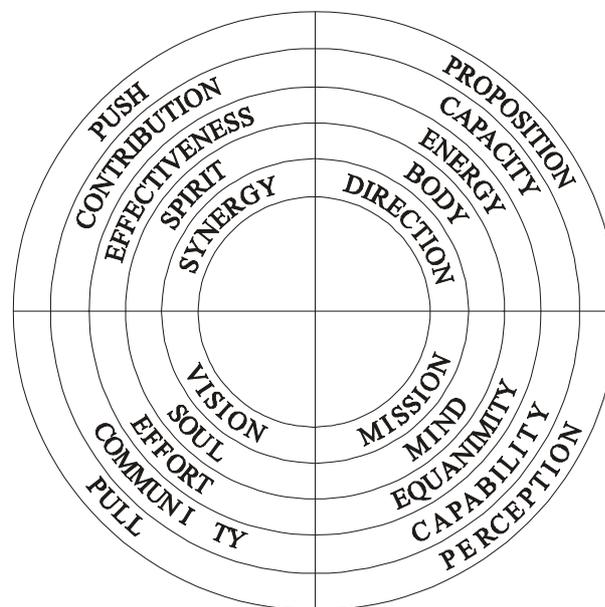


Figure 3: The cycle of general activities

CHANGE MANAGEMENT

Brugha (1998f) has describe categorisations of activities based on adjusting convincing and committing as **nomological maps**. An example is the Twelve Step Programme of Alcoholics Anonymous (Anonymous Authors, 1955). Here the dominating issue is adjustment. Each adjustment phase has three development stages. The same twelve steps can also be used to change people to a higher level of spiritual activity in the world, e.g. the Spiritual Exercises of St. Ignatius of Loyola which has

been presented (Tyrrell, 1982; Fessard, 1956) as to reform the deformed, conform the reformed, confirm the conformed, and transform the confirmed. Such a representation could be applied to any adjustment process, depending on how broadly one interpreted the idea of being “deformed”.

A development-led self-managed twelve step programme (Peace Pilgrim, 1981) involves four (somatic) preparations, four (psychic) purifications, and four (pneumatic) relinquishments. At each level there are steps corresponding to body, mind, soul and spirit. The spirit-based steps in this programme are (somatic) to simplify life to bring inner and outer well-being into harmony, (psychic) purification of motives, and (pneumatic) relinquishment of all negative feelings. Clearly synergy is facilitated by the elimination at the spirit level of anything that could conflict with bringing the vision to fruition.

Brugha (1998f) has shown how Galliers and Sutherland’s revised ‘stages of growth’ model for information systems strategy (Galliers & Sutherland, 1991; Galliers, 1991) could be converted into a full nomological map containing seventy two individual steps. In that context one would recommend to an information systems organisation that is moving up the stages of growth, that it wait until it has completely adjusted at each stage before embarking on the next stage. In the context of what has been explored in this paper this would mean waiting until the synergies start appearing, as these would be a sign that the adjustment processes are completing.

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