Organisational Change: revealing the micro-macro patterns underlying social system dynamics in a financial services context.

Robert Kay. rkay@inceptlabs.com.au

Chris Goldspink cgoldspink@inceptlabs.com.au

Arthur Preston arthurpreston@optushome.com.au

Abstract

A persistent challenge in the practice of organisational change is the ability to understand the complexity of the patterns of interaction that are already operating in the context and which serve to maintain the status quo. Many organisational change initiatives fail, by addressing only the superficial manifestation – the symptoms – of deeply embedded and historically entrenched mechanisms which shape the social behaviour of the organisation. In particular, many managers tend to focus on the formal aspects of organisation when planning change interventions, either in the form of KPIs or organisational structure, or task design, however, often these approaches prove ineffective as the existing patterns of behaviour are simply re-presented in a slightly modified form in order satisfy the formally mandated structures. The strength of the inherent patterns that are operating in the social system, overcome the change initiate or resurface in a slightly modified form. This paper presents a case study which a) illustrates the power of the underlying patterns by showing how they manifested in a particular project b) uses repertory grid technique to illustrate the nature and to explore the organisational implications of those patterns c) illustrates how the insights gained from the fine grained data available using grid, led to alternative intervention which was sensitive to the processes which were serving to maintain the status quo.

Word Count: 6250

Key words: Organisational culture, change management, innovation, narrative, repertory grid

Introduction

Many approaches to thinking about organisation change approach the organisation as a relatively static entity. Punctuated equilibrium models have also become popular but even here the notion of unfreeze-change-refreeze suggests change as an exception – a break with the more normal stability upon which organisational control is predicated. By contrast Tsoukas has argued that *'Change must not be thought of as a property of organization. Rather, organization must be understood as an emergent property of change. Change is ontologically prior to organization- it is the condition*

of possibility for organization.' (Tsoukas & Chia, 2002) Tsoukas :570 . We share Tsoukas concern.

Systems theories (Jackson, 2000), particularly complex systems (Marion, 1999) and social cybernetic (Keeney, 1987) approaches also focus more on understanding the sources and dynamical properties of organisations. Both disciplines advocate a need to direct attention at different levels of order (McKelvey, 1997; Mckelvey, 2000). Systems may and commonly do exhibit change at one level and this change may contribute to stability at another. Focusing the generative mechanisms which underpin both change and pattern requires the maintenance of a process perspective and as this is demanding, we more commonly focus on levels at which the stable pattern is evident - treating it as a relatively fixed entity (reifying it). In the above quote, Tsoukas is warning us of the danger of doing this. This study, provides an example of how methods such as repertory grid, which essentially provide a snapshot in time, can, when combined with methods which capture unfolding dynamics, such as narrative be used to develop insight into generative mechanism. In combination these two methods can be shown to reveal the relationship between emergent patterns of behaviour and individual level sense-making and support some prediction and thus help guide the design of change interventions.

If we assume that the fundamental basis of organisation is that it is maintained in and through communicative exchange then its coherence as an apparent entity involves a degree of self-referentiality and self-production. The way in which people think about themselves in the context of organising, as well as the way in which they think about others, and place themselves in relation to physical (e.g. building layout, geography) and social artefacts (such as formalised systems, rules and structures and information technology as well as informal norms) provides the constitutive mechanism of the organisation as a distinct social phenomena. This emerging nexus contains nested patterns of stability and points of potential instability which provide targets for intervention). For an intervention to be effective it needs to be designed with an appreciation of these patterns and what factors serve to maintain them. For many managers detecting them is an intuitive process or one based on experience, however, more systematic research methods may also be used to surface them. Once the key drivers influencing such patterns have been identified the manager can take action to disrupt those that appear to support undesired stability and/or stimulate those that support points of positive change

Normal qualitative or quantitative techniques will often provide a static snapshot of pattern at one or more levels but leave much of the generative process unclear. In particular, many conventional methods, founded as they are on reductionism fail to support any analysis of the interplay between levels. Systems derived techniques, while offered as an antidote to reductionism, may also fall short in focusing more on wholes and thus failing to reveal insight into the micro-processes at work. In this case study we combining narrative analysis(Browning & Boudes, 2005; Bruner, 1991a, 1991b; Snowden, 2001) with repertory grid technique (Fransella et al., 2004; Jankowics, 2004) and illustrate how these two well established techniques can be used to generate deep insights into factors which influence the dynamics of an organisation.

The Case study

The research context was a small business unit within a large financial services institution. The business unit in which the case study was conducted was lead by a General Manager and a team of six Heads of Department, each with multiple direct reports, in a strongly hierarchical structure. The total number of employees in the unit was approximately 100. Each department in the business unit was responsible for the management of different outsourcing arrangements and contracts with suppliers.

The General Manager and his leadership team were concerned that the level of collaboration between the different departments in the business unit was low with the effect of stifling innovation and reducing the quality of decisions making. In response the leadership team designed a small intervention which sought to facilitate increased collaboration across the silos within the Business Unit. The task involved bringing together Senior Managers from the different departments to solve a problem set by the General Manager's leadership team. The task itself was relatively simple and involved the development of a framework to categorize existing suppliers according to whether they were strategic (bringing new capability to the bank), aligned (providing improved capability to an existing strategy) or standard (providing supply to a non-strategic function of the bank).

The Change Initiative

The senior managers were asked to establish a taxonomy against which the top 100 suppliers could be categorized, with the idea that the taxonomy would then form the basis from which new relationship management models could be developed and implemented. Participation in the project was voluntary and undirected, in the sense that those who volunteered to participate were expected to self-organize in order to clarify and generate strategies to address the problem they had been given. The voluntary nature of participation resulted in only about half of the potential participants taking part. There were a range of reasons for the low participation which will be discussed later in the paper.

The outcome of the project was seen by most people associated with it to be unsatisfactory, not only in terms of the solution to the problem that was proposed, but also in terms of the collaboration objective that had been set for it. The group, working on the project fragmented into two sub-groups with each advocating incompatible solutions to the set problem. This was considered by the General Manager and his leadership team to be a 'non-result'. The fact that such a relatively simple task could not be completed came as somewhat of a shock to the GM, who suspected there were deeper issues at play which needed to be understood. We were asked, as people independent of the institution, to explore the reasons why the exercise failed.

The scope of our investigation was not related to the solutions proposed by the senior managers for the problem they had been set but to understand the factors affecting the group's ability to collaborate. In essence, why couldn't a group of intelligent, experienced managers, organize themselves to complete a relatively simply problem solving activity?

Methodology

We sought to gain an understanding of the recent history of interactions, the environment and individual and collective interpretations of events, as they related to collaboration and how both individual sense-making and institutional structures combined to limit collaboration. To achieve this, a methodology which combined narrative and Repertory Grid methods was employed.

Both the narratives and the repertory grids were collected in a single interview, which lasted on average about one and half hours.

Eleven Senior Managers took part in our study drawn from a group of eighteen possible participants. Participants were selected at random from a list of all the senior managers. Six out of the eleven interviewees had taken part in the exercise, whilst the others, although aware of it, had either specifically chosen not to be involved, or had sent a representative from their team. Participants ranged in age from early 30s through to early sixties and covered a broad range in terms of length of tenure in the organization and professional background (see Table one below).

Table one

Participant	Length of Tenure in Bank (Yrs)	Age	Educational Background
1	4	38	IT
2	4	46	IT
3	6	48	Accountant
4		36	Lawyer
5	5	47	IT
6	42	62	IT
7			
8	1.5	34	Finance
9	1	38	Accountant
10	16	43	TQM/Management
11	6	36	Engineering

Narrative

Narrative is seen from a number of perspectives within the social and organisational sciences. Most commonly it is encountered as a method – one particularly appropriate to *'…examine the interconnectedness of human agency and social structure and the temporality of historical events in processual ways.'* (Gotham & Staples, 1996: 481).

It has, however, been argued to be at the core of the functioning of human meaning making – the narrative mode of thought (Bruner, 1991a; Dautenhahn, 2002). Bruner observes that *'…narrative 'truth' is judged by its verisimilitude rather that its verifiability. There seems indeed to be some sense in which narrative, rather than referring to 'reality' may in fact create or constitute it…'* (Bruner, 1991a: 13). *'Once*

shared culturally…narrative accruals achieve…'exteriority' and the power of constraint.' (Bruner, 1991a: 19). From this perspective, narratives not only provide an account of how people interpret past events but those interpretations also play a role in embedding particular ways of thinking and knowing in the culture of the organisation – they come to be constitutive of the organisational reality. When we construct narratives we place ourselves as a character, even if it is one of innocent bystander. Narrative is our way of connecting the past to the present and provides a basis for our future action. Narrative then can reveal a lot about the part and future role an actor may play. We can and do of course revise our narratives. In the face of disconfirming evidence we may rethink and respond 'well of course…..'. We will, however, be very reluctant to change the central character – ourselves. The grand narrative that is our sense of identity. We will be reluctant to change the story if it requires a major shift in central values or understanding – constructs which are revealed by repertory grid analysis.

Narrative data then provides insight into the relationship between events – i.e. the emerging dynamics or how events are linked in time. More than this, and significantly for this study, it captures individual and collective accounts of the interplay between individual choices and behaviour and collective consequences and these accounts can be regarded as playing a part in the maintenance of existing order and/or to reflect the basis for change in established routines by revealing contradiction in existing meaning making at individual and collective levels.

In this case study a very simple narrative collection was undertaken. This involved asking participants to recall two recent collaboration experiences with which they had been involved within the institution: one a positive experience and the other a negative experience. Not all participants were able to think of two stories that they felt were worth telling and as a result only 14 stories were collected out of a possible 22. The stories were analyzed with the participant at the time of the interview. Six key events were selected that the participant felt 'stuck in their mind' about the experiences. These events were equivalent to what David Snowden (2000) would describe as an *anecdote*. These anecdotes were transcribed onto a set of six post-it notes: each covered one key event. Breaking the stories down into anecdotes supported analysis of the stories as a whole but also identified discrete events for subsequent thematic analysis across stories.

As the stories had been collected in the form of connected anecdotes, and coded by participant, thematic analysis was undertaken as follows. The stories were deconstructed, with the anecdotes from all the stories separated out and jumbled into a random order. Given that 14 stories were collected this translated into 84 separate anecdotes. The individual anecdotes were then clustered according to commonalities in their content, i.e. common words, depiction of similar events etc. In essence this was a typical thematic analysis process, with the distinction that it was the participants themselves who defined the key themes within their individual stories through the definition of the anecdotes, the researcher then undertook the themeing across the stories.

Grid Interviews

Personal Construct Theory has a considerable history – having been developed by Kelly (1963) in the 1950s. It is a member of the family of constructivist theories of knowledge being based on realist ontology and a relativist epistemology. Central to the theory is the idea of constructive alternativism (Bannister & Fransella, 1989). This simply states that any event or situation is subject to a wide range of alternative construal by different individuals. An event can carry many different meanings and the meaning it carries for any individual will depend on how he/she construes it at that time and how it fits within to his/her existing construct system. His/her existing construct system is a product of prior acts of construal and forms a hierarchical system of more or less tightly held conceptual distinctions which orientate behaviour. Importantly, Kelly sees this construct system as dynamic – being constantly modified as the agent acts in the world and attempts to be effective within it.

This modification involves the agent making distinctions on prior distinctions with higher order distinctions necessarily more general or abstract and therefore having a wider 'range of convienience'. The lower level distinctions are more concrete and situation specific. So, while a construct system is specific to the individual and forms the basis of that individual's agency, it is a product of his/her history of interaction in the current and other social domains. Constructs low in the hierarchy have fewer dependent connections with other constructs and can be surrendered or modified more readily than those at the top of the hierarchy. Super-ordinate constructs form primary orientating distinctions: they are associated with world-views and individuals will generally be reluctant to change them as they have profound implications for the way he/she sees and orientates him/herself in the world.

Kelly (1963) argues that all social processes necessarily involve the mutual construal of others construction and that this gives rise to some commonality of construction (consensuality in that domain of interaction). This construal of others construction is similar to the 'theory of mind': One agent develops a theory - using constructs available within his/her construct system - of the behaviour and meaning making process of another (Gardenfors, 2006).

Repertory grid (Fransella et al., 2004; Jankowics, 2004) is one of a family of related methods developed by Kelly and others to operationalise Personal Construct Theory. The approach we present here, highlights a distinctive property it brings of value to understanding the interaction of agency and structure within organizations. In the context of this case study Repertory Grid offered a structured, systematic means for mapping both individual (micro) and collective (macro) patterns of construal within a particular social domain. Furthermore, Grid analysis supports the development of metrics which allow some prediction of how willing or likely individuals would be to change their construal and thus how responsive they may be to alternative change interventions.

Repertory grids collect fine grained data about individuals sense-making – their system of 'constructs' – about some target. While the data is fine grained it is also sharply focused so the challenge in using grid as a means for data collection is to ensure that the data converges well onto the topic of inquiry. Critical here are the

choice of items of experience ('elements' in grid parlance) that will be used to 'elicit' 'constructs' and the focus question used during elicitation (Jankowics, 2004). Elements need to be tangible items of experience (i.e. time bound events, things or people). It is important also that the respondents have had direct experience of the elements. For this exercise we chose to use relational descriptors as prompts and to have the respondents supply specific people who matched the descriptor[1]. These people then became the elements in that respondent's grid. Each respondent would have different individuals, but individuals which were selected against criteria common to all respondents. Respondents were asked to identify eight colleagues from within the senior manager team who matched the following descriptions:

- A colleague within the SM team with whom I share information.
- A colleague within the SM team with whom I don't or seldom share information.
- A person who is senior to me within Strategic Sourcing from whom I learnt a lot
- A person who senior to me within Strategic Sourcing from whom I learnt a little
- A direct report with whom I share info
- A direct report with whom I don't share
- A colleague who you trust implicitly
- A colleague that you don't trust.
- A colleague I feel comfortable asking for advice
- A colleague I don't feel comfortable asking for advice

Where respondents felt unable to identify a colleague from within the senior manager group, they were asked to choose someone from across the broader organization but who was at a roughly equivalent level of seniority.

These descriptions were considered to capture qualities of relationships associated with collaboration and also to assemble into an approximate continuum or relational strength. The minimum quality of relationship upon which any level of collaboration could be built was taken as that which involved a 'willingness to share information'. An increment above that would be a relationship in which the respondent would be 'comfortable asking advice' leading to qualities needed for higher levels of collaboration, such as 'learn from' and 'trust implicitly'. To provide a basis for contrast (consistent with the principles underpinning the Repertory Grid technique (Fransella, 1977), people who the respondents regarded as having the opposite quality were also sought (i.e. 'a person from whom I learn little' or whom 'I do not trust').

Constructs were then elicited using the triadic method (Fransella, 1977). In this method respondents compare elements three at a time and with each comparison ask themselves the question 'Which two of these people is similar to one another and different from the third in terms of *how they helped or hindered collaboration'?*. In

[1] In a more recent related study which focused on innovation rather than collaboration and trust as with the case study reported here, in this latter case 'innovation events' were taken from the narratives and used as elements.

other words, the respondents were asked to reflect on each person in terms of their personal characteristics or the nature of the relationship they had with them and its impact on their collaboration. The answer was captured on a grid as the 'emergent construct' and the respondent was then prompted to identify the opposite pole of the construct. This too was recorded on the grid and then the process was repeated. In this case we prompted in order to identify between six and twelve constructs from each respondent. Respondents were then asked to score the grids. This is done by comparing each element against each construct pair and scoring (in this case from 1 to 5) treating the construct poles as opposite ends of a notional continuum. A 5 was scored if the element was best explained by the emergent pole and a 1 for the opposite pole. A sample grid is included at appendix one. Grids were then analyzed and a summary report prepared for each respondent. These were then compared with one another, themes extracted and pooled with the results of the narrative analysis.

Analysis

Narrative

All the people involved selected and described the same negative experience – the exercise in generating collaboration discussed earlier. As might be expected these stories captured quite distinct and different accounts and interpretations of events – unique personal histories of the shared experience. From the perspective of our inquiry, these stories provided anchoring events in the context of the institution against which the individual sense-making of the participants (as revealed by the repertory grids) could be interpreted. They also revealed the wider environmental factors and historical sequence, as well as the individuals reading of cultural rules, norms and institutional practices, which they believed influenced the outcome.

Rep Grids

Grids were analysed using the software package Idiogrid (Grice, 2002). Patterns in the relationship between elements and constructs were examined using Principal Component Analysis (with results for significant components plotted using Varimax rotation). This enabled us to identify, for each respondent, the type of person he she was likely to share information with compared to those with whom he/she would be unlikely to share; what type of person he/she would trust compared to not trust etc. It also revealed the degree of association between the element classes; if likelihood to 'share information' was closely associated with 'trust' or based on different factors in a relationship for example.

According to Kelly, a person's construct system provides them with a basis for hypothesizing about consequences of their and others actions. Tight construal (as indicated by a high mean correlation between constructs in the grid), would suggest that a respondent would have relatively unvarying predictions based on his/her construal of a situation. In other words, the characteristics the respondent attributes to individuals would, from his/her perspective, be expected to provide good prediction of the collaborative behavior of others. Loose construal, by contrast, would suggest a person with more flexible views, someone open to surprise. Inferences can therefore

be drawn about a respondent's openness to change, likely willingness to expose themselves to uncertainty etc. This was revealed by examining the *intensity* measure generated within Idiogrid. Respondents with high *intensity* scores tend to have fewer alternative ways of construing events (Fransella et al., 2004).

The *ordination* scores reveal the location of a construct within the respondents construct hierarchy, with higher scores suggesting higher ordination or more meaningful (and abstract) constructs (Landfield & Cannell, 1988). Individuals are less likely to be willing to change higher order constructs as they have significant implications for how he/she makes sense of the world (Bannister & Fransella, 1989; Kelly, 1963). Stable clusters of core constructs arguably form part of the persons self schema (Markus, 1977; Markus & Wurtf, 1987; Sheeran & Orbell, 2000) and identity framing self-narrative (Ezzy, 1998), both linked to decisions about action. On the face of it the existence of such core constructs should enable some prediction of behavior. However, (Onorato & Turner, 2004) have shown that there is a need to distinguish between self salient and group salient schemas and that group salient schemas can override self salient constructs. This reinforces the need for the analysis across grids as shared constructs are more likely to reveal group relevant constructs. This can be confirmed through triangulation with the narrative data which can establish how the constructs are a) shared and b) link to group identity. In combination then these scores provide an indication of the level of flexibility the respondents have when it comes to changing the way they perceive events. This willingness to change, as will be discussed below, is extremely important in terms of understanding the emergent dynamics of a social system. The hierarchy of elements and constructs were also examined using dendrograms (produced using SPSS cluster analysis as Idiogrid does not support this output). These revealed which elements and which constructs were related to each other and the order of that relationship.

This information was used to compile summary reports (an example of which is included in appendix two) which provided an account of a) the characteristics of people with whom the respondent was likely/not likely to collaborate, b) how the respondent perceived themselves in the context of their relationships c) how they think about trust and collaboration and the conditions needed to support it.

Combining the results

The narrative and the grid datasets each provided a distinctive but different perspective on the same patterns of meaning-making present in the organization and which, through the design of the methodology, could be confidently assumed to be relevant to understanding factors effecting collaborative practices. A comparative analysis of the results of the two data sets was undertaken on two levels. Firstly, individual stories were mapped to individual repertory grids. These two data sets provided triangulation and both independently and when combined revealed insight into which constructs in each individuals meaning system primarily orientate their construal of events and guide their action.

Secondly, the narrative clusters emerging from the thematic analysis of the stories were mapped to the output from the group grid analysis. Usually repertory grid analysis is undertaken at the individual level, however, in this instance we conducted

a thematic analysis across the constructs of the entire group (see Jankowics, 2004 for a systematic process for doing this). This analysis provided insight into how each agent made sense of their situation and the degree to which there were commonalities to this sense-making at a fine grained level. Mapping these two together revealed the areas of common construal around a distinct series of events. It also means we could see the depth with which that construal is held and therefore also which dimensions of the social system's patterns can easily change, and those that will not.

Findings

Distinctions shaping emergent structure

From the combined analysis it was possible to discern three primary distinctions that orientated respondents toward one another and influenced their willingness to collaborate. These can be summarized as follows:

- Not in my team / haven't worked with them vs In my team/worked with them before
- Different knowledge base / perceived as specialized vs Same knowledge base as me / more of a generalist
- New to the bank vs long time bank employee

Approximately two thirds of the respondents had one or more of the above as key characteristics in the way they distinguished collaboration between members of the group. These three distinctions would appear to form the basis for the creation of sub-groups within the broader team, where people of like characteristics have a much higher propensity to trust and collaborate with each other rather than those they perceived as being different. Although at first blush these distinctions could appear obvious and many people may distinguish trust along similar lines, we argue that the combination of depth with which these constructs were held and the degree to which they were shared across the group strongly drove the eventual outcome of the particular activity we studied, i.e. the group that was supposed to be collaborating split to create sub-groups closely aligned to the constructs described above.

The 'Not in my team / haven't worked with them', distinction was the strongest theme to emerge from the grid interviews. This, arguably, relates directly to the organizational structure and to a lesser extent the location/proximity of the teams to each other. The group who formed the focus of the study were spread across a number of physical locations and separate teams within the business unit.

The 'Different knowledge base (specialist – generalist)' theme was also raised across the majority of grids. This could be broken into two forms, being different professional background, i.e. accountant, lawyer etc, or different approach to the same profession. This later distinction took many forms, top down vs bottom up view, strategic vs practical, big picture vs narrow focus etc. This dimension was important as for many people: it impinged significantly on their likelihood to share advice and learn from each other. Collaboration with people who approached problems from a different paradigm was limited and/or not valued.

'New to the bank / long term bank employee', also figured strongly, and impacted mostly on the trust dimension of collaboration. The reason for this is that people's assessments of whether to collaborate regularly came back to their predictions about the motivations of the other, i.e. self focused or organization focused. Where a team member was new to the team, this view was difficult to form and therefore caution was seen as the best policy, with the consequence that collaboration was significantly less likely. Worse, those new to the bank may be seen as a threat – and were in some grids associated with gaining undue recognition and opportunity at the expense of those who were more long term.

What is more significant in relation to this point is that more than half of the total sample also had high mean correlations between constructs. This means that these people have fairly firm (tending towards inflexible) opinions regarding the people they identified and consequently their views will not be easily changed.

This was not the case for all those identified however, with some respondents proving to be quite open and willing to explore new views. It should be stressed however, that this group was smaller (at least in terms of the sample interviewed). It is also interesting to note that these views were held regardless of length of tenure. Both closed and open positions were represented amongst those who were long term employees (more than 5 years in the institution) and those who were relatively new to the institution (5 years or less). It is also significant to note that someone who may have worked in the institution for an extended period, but was new to the business unit, would be treated the same way as a new external hire.

A fourth distinction that was present in many of the grids, related to whether an individual was perceived to "work for themselves" or "work for the greater good". This particular distinction impacted on the 'Comfortable asking for advice' dimension of collaboration. It is positive to note that nearly all the respondents did not want to be seen as "working for themselves" and preferred to collaborate with those they saw as "working for the greater good". The issue in terms of collaboration is how they make that assessment, and this was overwhelming driven by the three main distinctions described above of team membership, professional background and length of tenure.

Findings with respect to the collaboration continuum

If we now analyse the findings from the perspective of the collaboration continuum suggested between sharing information and implicit trust the following observations can be made.

Information Sharing: This particular driver of collaboration was the most clearly effected by the organizational structure and the professional background of the participants. People tended to stay within their own team, and would only venture outside to a select group of trusted collaborators (often defined by having previously worked together, professional background and/or length of tenure). Naturally this situation presents a significant issue for new entrants, who do not have an established network within the Bank, and for whom the establishment of such a network will be difficult without a clear business reason to interact.

Comfort in asking advice: The drivers for this dimension of collaboration shared a number of similarities with the 'Willing to share information' dimension. The distinguishing characteristic, however, was the level of familiarity with the other person and in particular their understanding of the other person's motivations. Motivations related to how the individual would react to the request, and their individual agendas. Where an individual was perceived to 'work for themselves' as opposed to 'the greater good of the organisation' people were unlikely to approach them for advice. Professional background was also important within this dimension as it determined the value placed on the response of the individual whose advice was sought, these responses needed to be seen as coming from the same paradigm otherwise they were less likely to be seen as useful.

Learning: There was no clearly discernible pattern with regard to the types of people that SMs may learn from, each of the people interviewed had and made individual judgments regarding what was important. The factors that drove information sharing therefore were not the same as those that drove learning. All the distinctions described so far could and did impact on who the interviewees felt they learnt from but there was little discernable pattern across respondents.

Trust: In the literature on collaboration, trust is often identified as a key driver of information sharing, however, in the interviews conducted for this study there was some divergence between trust and information sharing, with approximately one third of respondents indicating they would share information with someone who they did not trust, depending upon what the information was. As such, there were no significant issues indicated in regard to business as usual type interactions, however, where the content of the interaction was broadened to include for example career guidance, the same key distinctions of team membership, professional background and length of tenure discussed above, would determine which people interacted.

What is interesting here, is that overtly all the participants, wanted to collaborate, and indeed initially did collaborate around the problem they had been set, thus creating a new pattern of interaction that had not existed before. However, over a relatively short period, this new pattern broke down with a slightly modified version of the pre-existing pattern of interaction emerging. A very similar result emerged in relation to the study conducted on innovation, i.e. the pre-existing patterns of activity in relation to innovation have been very difficult to change and indeed any activities that have not been protected from the existing patterns eventually succumb to them. In the evidence collected there is a clear explanation for this. Individuals were construed through established constructs and these influenced subsequent behaviour. As there was nothing in the design of the intervention which was directed at challenging or disrupting the existing ways of making sense of the situation, and in particular, nothing powerful enough to compel the need to reconsider deeply held constructs, no change was achieved, on the contrary, the existing patterns reappeared in a slightly modified form.

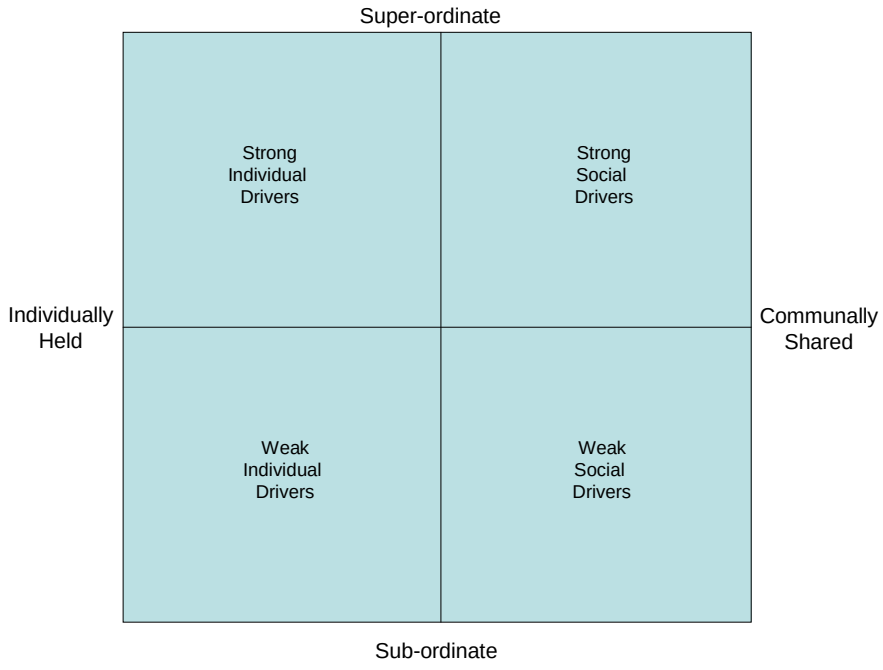
A change model

The results of the repertory grid interviews, when combined with the narrative data allowed us to see the way in which the structure-determined behaviours of the

participants were triggered by and simultaneously influenced the outcomes of shared events in a social context. More importantly, the studies showed quite clearly that, where certain constructs were both deeply held by an individual and at the same strongly shared by the group, these constructs would drive the emergent pattern of activity despite a change to the environment of the system. This situation often surfaces in social contexts where senior management desires a particular social dynamic and puts in place measures they feel will achieve the dynamic, only to find that subsequent to the change, the original patterns of behaviour prove unexpectedly resilient.

These observations have lead us to propose the following model (see Figure two) as a way of informing any proposed attempt to change existing organizational patterns. The simple two by two matrix places the depth with which a construct is held on one dimension and the level to which it is shared on another. By mapping the constructs onto this matrix it becomes very clear, very quickly, which constructs or drivers of structure-determined behaviour will be difficult to address, and indeed if not targeted by an intervention, will work against any proposed change. It also points out the characteristics of the social system which are effectively nothing more than lip-service but in reality have very little impact on the dynamics of the social system.

FigureTwo



We argue based upon our preliminary studies, that where a series of constructs occur in the top right hand corner of the matrix, it will be extremely difficult to affect a change to the dynamics of the social system without considerable change in deep sense-making of individuals. Weak social drivers are the equivalent of the organizational mission statement that everyone keeps in the bottom draw yet would have difficulty remembering if asked. Constructs where there is little or no sharing

and therefore are only mapped to the left hand side of the matrix, are interesting in that they provide the basis for individual development programs, or forms of behaviour that the organization might to expand on. For example, different people are good at different things, just as different activities work more effectively if associated with particular types of behavioural dynamics. So logically one can align the people with a greater propensity for certain activities, with those activities – but there is nothing new in this idea.

Importantly in terms of our broader research program, these observations provide us with a perspective on the way in which macro level structures (as revealed by the three distinctions illustrated above) emerge from the way in which individuals perceive and act within an organizational situation. It suggests that interventions which fail to address the strong social drivers is unlikely to have any significant impact. These drivers will be different – ie particular to different organizations and may change over time. There is a need to undertake targeted analysis in order to surface them. These drivers are particularly resilient to change, which arguably could be good and bad depending upon the how they fit with the desired state of affairs. Once identified, interventions can be designed which operate at both the level of individual and structure, which specifically target the drivers aiming to reinforce those regarded as helpful and to disrupt those seen as unhelpful. We have detailed a methodology and a model which can be helpful for such an undertaking.

Conclusion

This case selected for this research centered on an intervention designed to address a limited capacity for innovation in a senior management team – i.e. a perceived inability for managers to bring new ideas, understandings and capabilities to challenging situations. We have examined the reasons for the failure of this intervention by seeking better to understand the way in which individuals contribute to maintaining current patterns in the organization and how the intervention failed to address these. This represented a move away from approaches which treat ‘organisations’ and ‘knowledge’ in a reified way to a process based view focusing in particular on understanding the interplay between macro and micro levels.

The intervention initially used to try to build collaboration in this work unit, assumed that collaboration was not occurring due to formal structural inhibitors (institutional silos and or physical distance) and/or lack of opportunity. It was anticipated that providing different people from different backgrounds with the opportunity to work on a common project would be all that was required to overcome the problem of lack of collaboration. This proved too simplistic.

The data gathered using both narrative and repertory grid methods revealed a more complex picture. The senior management group was shown to have formed a set of ways of interpreting their environment which limited their willingness to engage on the basis of three dimensions of relationship. These were not related to the formal structure or to physical proximity directly (although these would have influenced the formation and maintenance of the dimensions found) but were culturally stable dimensions which had become self-maintaining. This combined with a pattern of tight construal contributed to a very stable system whereby individuals sense-making

reinforced cultural patterns which shaped interaction so as to reinforce individuals sense-making in a manner which restricted the scope and possibility of collaboration outside of the dimensions of:

- In my group
- Of my discipline
- Been around a similar time as me.

This analysis supported the argument that organizational capability and knowledge is a complex product of the interplay between individual agency and institutional structure and that unless insights can be gained into how these two aspects of the process of knowledge construction operate at particular times, for particular groups with respect to particular challenges, any in intervention is likely to be ineffective.

References

Bannister, D. & Fransella, F. 1989. Inquiring Man: The Psychology of Personal Constructs. London: Routledge. ISBN: 0415034604

Browning, L. & Boudes, T. 2005. The use of narrative to understand and respond to complexity: A comparative analysis of the Cynefin and Weikian models. E:CO, 7(3-4): 7.

Bruner, J. 1991a. The Narrative Construction of Reality. Critical Enquiry, 18(1): 20.

Bruner, J. 1991b. Self-making and World making. Journal of Aesthetic Education, 25(1): 11.

Dautenhahn, K. 2002. The Origins of narrative: In search of the transactional format of narratives in human and social animals. International Journal of Cognition and Technology, 1(1): 26.

Ezzy, D. 1998. Theorizing Narrative Identity: Symbolic Interactionism and Hermeneutics. The Sociological Quarterly, 39(2): 239-252.

Fransella, F., Bell, R., & Bannister, D. 2004. A Manual for Reportory Grid Technique: Second Edition. Chichester: John Wiley & Sons. ISBN: 0-470-85489-8

Fransella, F. B., Don. 1977. A Manual of Repertory Grid Technique. London: Academic Press.

Gardenfors, P. 2006. How Homo became Sapiens: On the evolution of Thinking. Oxford: Oxford University Press. ISBN: 0198528515

Gotham, K. F. & Staples, W. G. 1996. Narrative Analysis and the New Historical Sociology. The Sociological Quarterly, 37(3): 20.

Grice, J. W. 2002. Idiogrid: Software for the management and analysis of repertory grids. Behavior Research Methods, Instruments, & Computers, 34: 3.

Jackson, M. C. 2000. Systems Approaches to Management. London: Kluwer Academic.

Jankowics, D. 2004. The Easy Guide to Repertory Grids. London: Wiley. ISBN: 0-470-85404-9

Keeney, B. P. 1987. Aesthetics of Change: Guilford. ISBN: 1572308303

Kelly, G. A. 1963. A Theory of Personality. New Yorke: Norton. ISBN: 0-393-00152-0

Landfield, A. W. & Cannell, J. E. 1988. Ways of assessing functionally independent construction, meaningfulness, and construction in hierarchy. In J. C. M. M. L. Shaw (Ed.), Cognition and personal structure: 67-90. New York: Praeger ISBN: 0275926060.

Marion, R. 1999. The Edge of Organization: Chaos and Complexity Theories of Formal Social Systems. Ca: Sage.

Markus, H. 1977. Self-schemata and processing information about the self. Journal of Personality and Social Psychology, 35: 63-78.

Markus, H. & Wurtf, E. 1987. The dynamic self-concept: A social psychological perspective. Annual Review of Psychology, 38: 299-337.

McKelvey. 1997. Quasi-Natural Organisation Science. Organization Science, 8: 351-380.

Mckelvey, B. 2000. Micro-strategy Leadership: Distributed intelligence via New Science. In A. Y. Lewin & H. W. Volberda (Eds.), Mobilizing the Self-renewing Organization. Thousand Oaks: Sage.

Onorato, R. S. & Turner, J. C. 2004. Fluidity in the self-concept: The shift from personal to social identity. European Journal of Social Psychology, 34: 257-278.

Sheeran, P. & Orbell, S. 2000. Self-Schemas and the Theory of Planned Behaviour. European Journal of Social Psychology, 30: 533-550.

Snowden, D. 2000. New Wine in Old Wineskins: From organic to complex knowledge management through the use of story. Emergence 2(4): 14.

Snowden, D. 2001. Narrative Patterns. Knowledge Management ARK.

Tsoukas, H. & Chia, R. 2002. On Organizational Becomming: Rethinking Organizational change. Organization Science, 13(5): 567-582.