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AN UNEASY SYMBIOSIS
A Grounded Theory of Virtual Organisation

by

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Abstract

In the organisation of work, significant change is afoot. Due to recent advances in Communication and Information Technology (CT/IT), new forms of organisation are now possible, and increasingly advantageous. These new forms of organisation are 'enabled' by advanced CT/IT, most notably the Internet and its associated software. The use of advanced CT/IT extends the possibilities for the way in which activities may be organised over time, geographic space and across organisational boundaries. For this reason the new organisations are often called Virtual Organisations (VO).

From an Organisational Psychology perspective the VO is relatively unique. It potentially presents social psychological issues significantly different to those experienced in conventional forms of organisation. Using a case-study approach, the present thesis develops a theoretical conceptualisation of some of the basic social processes involved in a VO. The Grounded Theory method is used as the primary methodology. This inductive approach is supplemented and enriched by a quantitative assessment of organisational culture within the participating VO.

The central concepts yielded by the analysis are "Maintaining Independence", "Collaboration", "Formalising the Informal", "Self Management", "Regression

towards the Conventional”, and “Independence Overload”. The ensuing theory centers around the process of “Achieving Symbiosis” which emerged as the core category of the Grounded Theory. This refers to the process whereby those involved in VO must accomplish a balance between two competing motivations intrinsic to the virtual mode of organisation: The “Maintenance of Independence”, and “Collaboration”.

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For
Ross Jamieson Young

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Chapter 1

INTRODUCTION

In the age of information, the organisation of work is undergoing some profound changes. Advances in Communication Technology and Information Technology (CT/IT) are creating an environment in which the emergence of innovative new forms of organisation is both possible, and increasingly necessary.

'Discontinuous' change (Handy, 1996) has been a pervasive feature of the business world over the last two decades. Customers have become increasingly sophisticated and demanding. Knowledge, rather than labor and capital, is becoming the dominant source of wealth, and the rate at which the organisation learns, changes and adapts is its, only sustainable competitive advantage (Rogers, 1996). Technology has advanced at an exponential rate, making the difference between those who utilise it and those who do not, grow continuously larger (Achrol, 1997). The increasing importance of integrated information systems, and the ready availability of potent communication technologies such as cell-phones, powerful notebook computers, sophisticated telecommunications software, voice mail, and the Internet, mean large quantities of information can now be transferred accurately, reliably and virtually instantaneously from office to office, city to city, and country to country with equal ease. Time and distance are no longer the restrictions they have been in the past. Competition has become global as well as local. This global economy creates an environment of heightened competitiveness,

which, when coupled with the ever increasing speed of technological change, creates a compelling demand for adaptability, flexibility, and responsiveness in business organisation (Martin, 1996). The prevalence of practices such as decentralisation, downsizing, rightsizing, and reengineering, is a reflection of this situation. (Hammer & Stanton, 1995). Large bureaucratic organisations are simply not well suited to adapting to rapid changes in their competitive environment (Rogers, 1996; Miles & Snow, 1992). Many will not survive in the information age and there are new forms of organisation rapidly emerging to take their place (Achrol, 1997).

The adaptability and responsiveness that is becoming so necessary in this information-based market is essentially the ability for self-renewal, i.e., the ability to deftly reconfigure and reorient the organisation according to the shifting demands of the market, without losing competitive advantage (Martin, 1996). This 'agility' is the essence of the emerging form of organisation. It is what gives it its competitive advantage, and is the feature that distinguishes it most significantly from the traditional form. CT/IT is the mechanism for this agility. Through its use, adaptability and responsiveness is attained through characteristics such as the efficient use of information, extreme decentralisation, transience of alliances, focus on core competencies, boundaryless operation, flattened hierarchy, and high autonomy of participants.

None of these elements are necessary or sufficient conditions for inclusion in a discussion of the emerging information-age organisations, all may be present to varying degrees. Their commonality can be described in terms of a number of

interrelated dimensions centered on the use of CT/IT. For example, the degree of centralisation, hierarchy, or overheads present can all be seen as continuous dimensions on which the organisation can be located. The utilisation of CT/IT redefines and extends the parameters of these dimensions.

A definition of an organisation which incorporates these elements is given as:

Minimal-overhead organisations that exploit technological developments in information processing, networking, telecommunications, and workgroup software to allow geographically independent operation of all aspects of internal affairs, and to facilitate the sourcing of expertise on a global basis. They are typically contributor owned and have little or no formal hierarchies of status or authority. They are fluid and agile, forming and re-forming on a project-by-project basis, selecting contributors for each project on the basis of relevant competencies (Greengard, 1995).

This high level of flexibility and adaptability provides the capacity required to supply a service that is super-responsive to the customer. Financial savings are made through low overheads due to savings on capital outlay, realty, security, insurance, maintenance, and staffing. By concentrating on core competencies and utilising temporary contract employees (outsourcing), the need for non-essential permanent employees is minimal. Capacity can be added incrementally, thereby allowing the organisation to grow at exactly the same rate as demand, instead of paying up front for capacity that may be untapped for some time (Greengard, 1995).

This new form of organisation is creating much discussion and speculation. Still, there exists little agreement in the literature as to what to call it, or what exactly its defining features are (Fuehrer, 1997). The term 'Virtual' is becoming a common label for anything new and technologically advanced, but there is as yet no clear definition or typology of the concept. Nevertheless, the most commonly cited characteristic is the centrality of CT/IT. This is reflected in the usage of labels such as 'Network Organisations' (Miles & Snow, 1992), 'Virtual Organisations', 'Modular Organisations', 'Barrier-free Organisations' (Dess, Rasheed, McLaughlin & Priem, 1995), 'Quasi Firms' (Luke, Begun & Pointer, 1989) and 'Nebulous Organisations' (Powell, 1992) which all reflect the intrinsic intangibility born from the ability of such organisations to disperse geographically through the use of CT/IT. Another less obvious, but no less significant characteristic, is the non-hierarchical structure. This aspect is reflected in Miles and Snow's (1995) description of the phenomenon as 'Spherical Organisation'.

It may not be entirely appropriate to categorise and label the new types of organisation at such an early stage of conceptual development. Nevertheless, for ease of discussion, the term 'Virtual Organisation' (VO) will be used hereafter; where 'Organisation' is conceptualised as a process rather than an entity, a verb rather than a noun. The reason for this is that it is possible for organisations or corporations to possess varying degrees of 'virtualness'. For instance, a traditionally configured organisation may begin to cross traditional boundaries and form virtual alliances with other organisations thereby creating what is usually called a Virtual Corporation (VC). Examples of this are Nike, Reebok, Sun Microsystems, Toyota and Chrysler, all of which have consolidated around their

core competency and outsourced everything else. For example Nike has almost no manufacturing capability. They concentrate on design and marketing (Dess et al., 1995). Additionally however, an organisation may also configure itself internally in a virtual manner. Both scenarios could involve total or partial adoption of the virtual philosophy. So the autonomous entities in the VO process can range from traditional organisations that comprise a VC, to individual people comprising a VO, (either in solitude or as part of a VC). Because the latter involves a more inclusive employment of the VO philosophy, it is the focus of the present study.

In designing and operating a VO there are few precedents, or models to follow (Daft & Lewin, 1993). It is inevitable that there are going to be problematic issues that need to be dealt with. Training and development, remuneration, motivation, selection, and dismissal may all present situations in which traditional theory and practice may not be appropriate or applicable. The basic recruit-hire-train-compensate-promote-and-retire employment paradigm, dominant for so long, is being replaced by entrepreneurial, virtual, core/variable paradigm in which the whole relationship between employer and employee is being radically altered and redefined (Snell, 1994). Furthermore, on a more basic level there are potential dilemmas surrounding issues of trust, the maintenance of social norms, confidentiality, organisational commitment and loyalty, maintenance of autonomy, and redefined power relations (Posch, 1994). Greengard (1996) suggests that the most significant challenges may be to empower people to fit into this new organisational paradigm and the “enormous challenge” of holding together an organisational culture in which employees no longer see each other face to face.

Traditional organisational forms, (of which the large bureaucracy with its centralised structure and formalised hierarchy of status and authority is of course the quintessential example), create, perpetuate, and require certain patterns of values and beliefs in the people who work within them. For example the Protestant work ethic, the 'boundary mindset' (Dess et al, 1995), reductionist thinking, the assumptions that people need to be led and controlled and that people are naturally resistant to work are central features of the mind-set born in this environment (Banner & Gagne, 1995). Furthermore, this mind-set is not restricted only to the context of work. It forms part of the individuals' whole worldview central to their basic understanding of reality.

Many of these belief systems and their associated assumptions have already become inappropriate in modern times. Perhaps we are seeing in the new type of organisation, a reflection of a change in the values of the people who work in our society? We are already seeing the collapse of the traditional bureaucracy. For many reasons it is becoming less effective than ever before, and not least of those reasons is that the mindset that underlies the traditional type of organisation is no longer acceptable. People are becoming increasingly more educated, and less inclined to be unquestioningly obedient. The authoritarian hierarchy no longer has the capacity to get results through blind obedience and compliance. Increasingly, authority and respect must be earned, and must be legitimised in different ways (Handy, 1991).

However, humans are gregarious beings. It may be that we will miss the synergy of coming together face to face. There are important social processes institutionalised

by the present workplace model, that will not be present, or will be drastically altered by the virtual workplace. For instance the creation and maintenance of social norms. Human groups operate cohesively because they form a tacit agreement about reality. This agreement is formed through trial and error as a function of belonging to the group. Now, for the first time, we are experiencing complex groups that potentially do not have any physical contact. As Fernberg (1995) points out, it is unclear how expectations in the workforce will be created and maintained when people cannot experience directly what the company norms are. These are basic social psychological issues.

The present thesis is an exploratory investigation into the psychological implications of VO. The underlying rationale is that one of the most important success factors for the new types of organisation will be the psychological 'preparedness' of the participants. Cultural analysis was chosen as the most fruitful method of inquiry into the phenomenon of VO from a Organisational Psychology perspective. Due to the current lack of empirical theory of the VO phenomenon, an inductive approach using the 'Grounded Theory' methodology (Glaser & Strauss, 1967) as the primary method was adopted. This was supplemented by a quantitative analysis using the Organisational Culture Inventory (OCI) (Cooke & Lafferty, 1983).

The following chapter is a more comprehensive examination of the literature associated with VO. It is structured around the various variables of 'virtualness'. The implications of these factors are discussed in relation to Industrial/Organisational Psychology. Chapter three discusses the concept of

culture and organisational culture as represented in the literature concluding with a discussion of the relevance of organisational culture in the context of VO. Chapter four deals with Method. The logic and general procedure of the Grounded Theory Method is explained, the participating organisation is introduced and an outline of the procedure used to conduct the research and analysis is given. Chapter five reports the qualitative results in the form of a Grounded Theory of VO. Chapter six outlines the quantitative method and procedure, and reports the results of the quantitative analysis. Finally, Chapter seven discusses the implications of the findings, the shortcomings of the study and suggests further avenues of research.

Chapter II

THE CHARACTERISTICS OF VO

There is little existing empirical research concerning the psychology of VO. The majority of the available literature is speculative and/or anecdotal. The following is a discussion of the main themes identified in the existing literature. They are categorised under the headings: Boundaryless Operation, Trust and Confidentiality, Transience, Agility, Decentralisation, Core Competencies, and Hierarchy versus Self Organisation.

Boundaryless Operation

The notion of 'boundarylessness' does not mean that boundaries cease to exist completely, but rather that they become more negotiable (Dess et al, 1995). Conventional boundaries are transcended and the organisation is redefined to include customers, suppliers, distributors and all other stakeholders (Rogers, 1996). In terms of knowledge dissemination within the organisation boundaries are broken down allowing rich information to be accessed and used easily by any organisational member. The rationale for the reduction of barriers is to achieve agile, adaptive, self-organising, learning organisations that identify and solve problems quickly and efficiently. These capabilities will become one of the most valuable competitive advantages in the future because they are inherently valuable and inimitable. For this reason Tucker, Meyer and Westerman (1996) posit that the

organisational communication systems are fundamental internal resources which are directly related to competitive advantage and financial performance. Due to geographical dispersion and fluid membership, the successful VO must create new approaches to knowledge creation and reduction of barriers to understanding.

Communication is a key attribute of any organisation. In the context of VO communication is achieved primarily via the internet using email, newsgroups, or video conferencing. It is possible that there will be a need for new protocols of communication to be instigated. Face to face communication involves many types of information that written communication does not easily convey. Understanding in human interaction is attained through the interpretation of body language, tone, facial expression, volume etc. These are not present in electronic communication so there may be more chance of miscommunication. In a review of the relevant research in this area Bordia (1997) shows that computer-based communication takes longer and produces poorer comprehension of the discussion. However, under certain circumstances, it also facilitates the production of more ideas, greater equality of participation, and less normative pressure.

Another potential problem faced by the VO due to its dispersed nature is the fact that there exists little opportunity for informal communication. The 'water cooler' effect whereby issues are discussed informally among employees, enables the open dissemination of information among organisational members. This is not as readily available in the VO. It is therefore important that communication be open and free of threat. Unverified rumor or perceived threat is amplified by distance. Since distance is a the key element of VO, this potentially prevents the formation of an

informal communication group. It is by providing 'safe' open communication channels that the necessary trust can be built (Rosman, 1997).

Transcendence of traditional boundaries is an external feature of the virtual mode. In the context of VOs, the boundaries between what would traditionally be competitors must be broken down in order to facilitate efficiency. This is a paradigm shift in itself. For instance, the simple fact that a particular 'knowledge node' may at any time become partner, client, or competitor relative to another knowledge node is incongruent with much of our current conception of the nature of 'business' and 'competition'. It will become increasingly meaningless to speak of 'them and us'. In the network scenario 'they' could be 'us' at the click of a mouse. This raises issues of loyalty, trust, and confidentiality.

Trust and Confidentiality

One of the most significant problems in VO may be the issue of trust. Achrol (1997) maintains that trust is an important determinant of performance factors such as open exchange of ideas, clarification of goals and problems, extensive search for alternative courses of action, and motivation to implement decisions. Fukuyama (1996) suggests that in many ways VO is based upon a somewhat unfounded assumption that temporary workers will share knowledge with others whom they have never met, or know only on a 'virtual' basis. When knowledge is the only commodity of any real value, people may not share it freely with others unless they have great faith in their integrity, and intention to reciprocate. Managing people whom you do not see will be potentially problematic. Trust is the obvious answer,

but the perception is often that trust cannot exist without direct control (Handy, 1995a). In the VO people will no longer be located in the same place. The ability to directly monitor output will cease to exist. It will become increasingly important to rely on trust rather than control. One of the ways that VO achieves this is to supplant the hierarchy with a peer-based structure. In this way the classical justifications for autocratic control (McGreggor, 1960) are superfluous. Working arrangements are guided by mutually agreed upon contracts.

Posch (1994) makes the additional point, that in the face of globalisation there will also be problems to overcome with respect to the law. VO allows workers to be located anywhere in the world. One of the consequences of this is that clients have no way of knowing whether their dealings with the organisation are protected by the laws of the country in which they are being made. It may become necessary to be able to guarantee that client's confidential information is subject to the privacy laws of the country in which it was divulged. The customer's trust will have to be actively nurtured and safeguarded. The customer also must undergo a paradigm shift. Creating a positive perception of the VO will be an important determinant of success. The environment that has spawned the VO necessitates a new relationship of trust between organisation and client.

Transience

Transience refers to the tendency towards temporary working relationships both internally and externally. It is intrinsic to the model that each node of the organisation remains independent. VOs create a strategic advantage through the

flexible use of the various core-competencies. 'Project teams' are formed for a job and dismantled when it is completed. The whole organisational structure is based on 'semi stable relations'.

The transient nature of VO means job security as it has been traditionally conceptualised no longer exists (Dilenschneider, 1995). In the virtual environment it becomes the sole responsibility of the individual to maintain a skill-set that is valuable and up to date. The individual will develop a portfolio of 'jobs' with a matching skills/abilities collection that is continually updated and enhanced (Handy, 1995b; McDermott, 1996).

Agility

Agility is derived from the fact that the VO is intrinsically suited perfectly to the job at hand; for *every* job within the scope of the VO. This means that jobs do not have to be selected according to whether or not the organisation is designed to deal with them, but instead the organisation is formed and reformed according to the nature of each job. It is this flexibility and agility that will be the defining feature of the organisation of the information age.

Agility is essentially the capacity for self renewal in response to environmental changes. To adapt without losing effectiveness requires the capacity to make adjustments to environmental shifts without contradicting the operating logic of the organisational form. Miles and Snow (1992) argue that adopting the virtual form facilitates the development of this capacity because the relationships among the

separate entities become externalised and are voluntarily entered into making them explicit and available for objective examination, discussion and modification.

Decentralisation

The advent of IT enables people, previously bound to offices, to work at home and on the road. Whether they are secretaries, contractors, software developers, or designers, they are now able to work more or less where they choose. With this comes an increased ability to be self-employed. This type of worker raises issues with supervision, motivation, training, and commitment. The usually touted advantages of decentralisation are an increase in productivity due to savings in time and increased motivation, the ability to source exactly the right people, flexibility, and the reduction in overheads. After personnel, the most expensive overhead is space (Bergsman, 1995) so there are significant savings to be made by divesting of office space. However, Powell (1992) points out that there are also potential disadvantages. For example, it is not necessarily true that productivity will increase with the extra time and flexibility that working from home avails. In addition, the overheads are only reduced from the organisation's point of view. In reality, overheads are still incurred, but are now carried by the individuals working for the organisation. Apart from ethical considerations, this implies a considerable amount of duplication.

It is not yet clear whether working from home is in fact more efficient. There are many variables that may impinge on efficiency and satisfaction in that context. For instance social isolation may cause psychological problems as family dynamics and

roles are altered. Even dietary problems may occur because the individual working at home often makes more trips to the refrigerator (Bergsman, 1995).

Core Competencies

Competitive advantage is attained by compiling a diverse skill-base that meets the requirements of a predetermined domain of competencies unique to the organisation and the target market. The necessary skill-sets for each specific job are identified and the most appropriate team, relative to the requirements of the job, is assembled.

The term “core competency” refers to abilities and attributes unique to the group. The focus on core competencies entails an overt concentration of the core group on a set of competencies that form the basis of the organisations competitive advantage. This focus enables the organisation to avoid paying for full time individuals who do not perform essential functions. Instead of paying for all of an individual’s time, only the time that is needed is paid for (Dess et al, 1995). These abilities are things that make a significant contribution to the value of the product or service as perceived by the customer and are not easily reproduced by competitors. Core competencies are specialised knowledge in areas such as technical, technological or organisational abilities, but can also include organisational infrastructure, network connections, and human resources (Fuehrer, 1997).

Experience of VO will become an important core competency and thus a competitive advantage. It may be that certain psychological traits that correlate with success within the model will become important core competencies and selection criteria.

Hierarchy versus Self Organisation

Martin (1996, p. 92) states that “it is fashionable to talk of non-hierarchical corporations, but some hierarchy necessarily survives. Management must set direction, establish the strategic vision, and design the enterprise. Financial control is needed of all the activities.” This is a statement made in a book that deals directly with the novelty and innovation of the organisational forms of the information age, but nevertheless, it still reflects assumptions of the old paradigm. It is not necessarily untrue, it just has inappropriate connotations. What the statement implies is that an organisation needs management, where management means direction, where direction means being goal directed. However, the conventional meaning of ‘management’ and ‘direction’ in the context of traditional organisational dynamics connotes the idea of control from above, excerpted by a few powerful individuals. It is based on the cultural assumption that the people working within an organisation are typically not capable of giving it direction. This is a generalisation, and certainly it may often be the case that the organisation will be more responsive if there is one person or a small group who is in a position of control that enables instant decisions. But there is no reason why this entity should be called a manager or a director. These are linguistic artifacts of an earlier and now superfluous culture. Maybe a more appropriate label could be ‘steersman’, or ‘decisioneer’. And instead of controlling the organisation from a position of power gained by tenure, or age, this position would be temporarily attributed to an individual elected by the collective organisation, and empowered to guide proceedings on the basis of the requirements of the moment.

Given that one of the primary advantages of the Virtual mode of organisation is enhanced efficiency and responsiveness, an egalitarian structure may be a necessary condition for VO (McDermott, 1996). The agility and responsiveness and adaptability that characterises the VO would be greatly hindered by a hierarchical structure in which decisions cannot be made quickly and competently at the coal face by any given member of the network. Miles and Snow (1995) suggest that it is appropriate to exchange the traditional pyramid metaphor with that of a 'rotatable sphere' in which the most appropriate person at any given time takes responsibility for guiding the group. This appropriateness is determined by relevant competencies.

Traditional hierarchical 'management' will not necessarily work well for VOs. Firstly, as Achrol (1997) observes in a discussion of power relationships in the network environment, there are elements of conventional modes of influence that are inappropriate to VO. The traditional power relationship is essentially a manipulative one in which influence is based upon coercion and legitimate authority. Non-hierarchical network relationships tend towards reputational, expert and referent power relationships that are conducive to building social bonds and close relationships. This type of power is however far less enduring than legitimate authority. Expert power for instance often becomes redundant once used or passed on. In VO power must be a 'subtle force' exercised via socialisation, peer review and consensus rather than executive directive. This aspect of VO is potentially one of the most problematic of the model. The successful achievement of a really egalitarian structure is probably significantly dependent on certain psychological

factors such as the personality and organisation preferences of those involved. It requires of the individual great personal responsibility and independence, a great capacity for dealing with ambiguity, a high level of maturity (Banner & Gagne, 1995), the ability to manage goals and results, and a capacity for planning, communication and conflict management (McDermott, 1996).

Secondly, hierarchical systems are only effective for low complexity and/or stable environment decision-making (Vaughan & Hogg 1995). The hierarchy limits access to information (Lipnack & Stamps, 1997) and thus compromises the purpose of VO i.e., increased responsiveness. Organisations that utilise participatory management styles tend to be much more effective at gaining the type of member commitment necessary to the inherently less hierarchical structures of VOs (Randolf, 1995). Consensus building is notoriously slow but there is no reason why, under the right conditions, it cannot be much faster particularly where there is strong initial agreement concerning organizational culture and processes. One successful model for this type of structure/process is the Quaker consensus process, where the Clerk interprets the "sense" of the assembly (Rose, 1988). The collective ability to achieve quality consensus decisions will represent a significant competency within VO.

The potential curtailment of efficiency caused by the use of consensus techniques is a significant problem to overcome. Consensus reaching is notoriously slow (Vaughan & Hogg, 1995). The use of IT/CT transcends the need for centralised control and integration of the traditional organisation, but a concomitant lack of control is a potential problem because it could render the important responsiveness

of the model questionable (Powell, 1992). Indeed, one justification for hierarchy is the efficiency of pre-determined points of decision-making power. Spontaneously self organizing systems supposedly replace the role of the hierarchy of authority. The ensuing flexibility and responsiveness is one of the main advantages of VO (Miles & Snow, 1995). Lengthy negotiations and discussions could be a severe obstacle to this advantage.

For legal reasons, accountability is also a potential problem. There will inevitably arise a requirement for an empowered individual or group to be accountable for the actions of the group.

Motivation is another important issue. The conventional hierarchically based system of motivation involves a 'carrot and stick' method of reward and punishment whereby good performance is rewarded with guaranteed long term employment. In the virtual environment this incentive is no longer there. Neither is the position power that is used to enforce these conditions (Dilenschneider, 1995).

The full utilisation of the operating logic of the virtual model precludes the use of a formal hierarchy. As Allcorn (1997) maintains, the full potential of the virtual model, such as its high level of adaptability and responsiveness attained through the use of electronic communication can only work if the hierarchy is 'put aside'. The basic structure of a network organisation is external. Interaction is guided by an exoskeleton of explicit contractual arrangements rather than an internal set of procedures. Instead of interactions being subject to the influence of power politics of the hierarchy, they are subject only to measures of performance. The required

performance and details of compensation and evaluation criteria of any given relationship are explicitly defined and agreed upon by each party to the relationship. The result is to make those interactions much more transparent and therefore discourage counterproductive or self-interested behaviour (Miles & Snow, 1992). The value of the external nature of network relationships is closely tied to the requirement that those relationships be entered into voluntarily. The attribute of voluntary participation is implicit in the idea that the terms of any given working relationships are based on an explicit agreement that is mutually advantageous. According to Miles and Snow (1992) this is one of the key elements of the network organisation. This basis of 'voluntarism' distinguishes the VO from traditional organisation on a very fundamental level. The traditional organisation is based on autocratic relationships whereby the 'employee' must do what the employer says at all times. Their time is paid for.

What is required is an empowering form of management that is essentially self directed—a 'self managing system' (Archol, 1997). An empowered structure of control entails enabling all participants to make important organisational decisions. The key variable is information sharing. It is only with the correct information that decisions can be made. All participants must have ready access to up to date information. So again trust is a big issue. The premise of empowerment is that empowered people will naturally grow and learn and become ever more competent and confident. One of the reasons for this is that this trust attributed to them gives them a feeling of worth and value that is not available in the conventional structure (Randolf, 1995).

The Role of Organisational Psychology

The move towards the virtual mode of organisation will require psychological shifts on some very fundamental levels. Working independently from home may cause role confusion and result in perceptions of social isolation. Reconciling this independence with the need for high levels of co-operation and collaboration may be difficult. Leadership shifting from emphasising rational control to leadership without control may create role confusion (Daft & Lewin, 1993). The geographical dispersion inherent in the virtual mode will create interesting dilemmas in terms of creating and maintaining the social norms that are so fundamental to human interaction. The creation and maintenance of the trust that is so important in virtual relationships, both with colleagues and clients, may often seem counter-intuitive due to transience and dispersion of operations. Furthermore, dependent upon the existence of real trust, the social norms required for VO – (i.e., independence, collaboration, flexibility, role integrity, harmonisation of conflict, encouragement of innovation, acceptance of ambiguity, and restriction of power) will be in many cases incommensurable with the conventional norms of behaviour that people have learned over a life time of socialisation within industrial age institutions.

In order to be successful VO's must address these issues. For example, developing reward systems that foster participation, co-operation and team performance without ignoring individual performance, mechanisms for resolving disputes without traditional authority structures and providing incentives without a hierarchical ladder to climb will be necessary (Dess et al, 1995). There is no reason

to assume that existing organisational theory will explain and predict the behaviour and perceptions of people operating within VO. It will involve a significantly different mind-set.

The move to VO involves rethinking some, or all of, the psychology of work. The traditional domains of Organisational Psychology, i.e., Job Design, developing Performance Appraisal systems and Reward Structures, Motivation, Training and Development, the design and implementation of Selection procedures and development and maintenance of Employment contracts (Berry & Houston, 1993; Hollway, 1991), will all be redefined in the context of VO. The parameters of the work organisation, the working relationship, and work itself are all redefined. From a psychological standpoint the main challenge presented by the virtual mode is a cognitive and attitudinal one. There are huge psychological obstacles caused by a paradigm shift of this magnitude.

To grasp the new operating logic of the virtual form is one initial obstacle (Miles & Snow, 1992; Miles & Snow, 1995), but it is the attitudinal change that is likely to be far more difficult to negotiate (Miles & Snow, 1995). Behavioural norms and expectations reinforced by (and necessary within) the old method of organisation will in many cases be incompatible with the requirements of the VO. For instance the expectation that 'the organisation' will provide work for the individual in return for their allegiance and time, will be invalid in the VO because its central premise is that individual entities of the organisation are independent. Paternalistic expectations will be a hindrance, but they also may be very ingrained in people who have spent significant amounts of time in the traditional organisational form.

Miles and Snow (1992) suggest that the single most likely reason for a new type of organisation to fail is that its management remains constrained by the 'operating logic' of previous forms of organisation. Each type of organisation has an operation logic implied by its design. For example, the functional organisation, a special purpose entity designed to produce a specialised product or service in large volume at low costs has an operating logic based on centrally coordinated specialisation. In contrast, the divisional organisation is a collection of similar special-purpose entities independently operated to serve a particular market. Its operating logic is the coupling of divisional autonomy with centrally controlled performance evaluation and resource allocation. The matrix organisation is a complex entity that simultaneously generates two or more outputs for a set of both stable and changing markets. Its operating logic consists of a balance between the stable section which is similar to that of the functional form, and the other which places emphasis on local autonomy. The stable network organisation is loosely based on the functional form in that it is designed to serve a predictable market, but rather than being a single vertically integrated entity it is comprised of a string of independent entities tied to a core entity by contractual relationships. The component entities are autonomous to the extent that they are free to serve other organisations that are not part of the network. The dynamic network organisation is related more to the divisional form. The emphasis is on adaptability and the network is much looser. Independent entities are linked together in temporary partnerships to provide a service or product. The crucial factors are diversity and the existence of numerous entities at each point on the value chain in order to be able to pull together to form an alliance suited perfectly to a given assignment (Miles & Snow, 1992).

It is not possible to design and operate a fundamentally new kind of organisation and retain the operating logic of another form. It is a new mind-set that is required. Miles and Snow (1992) predict that although the new 'networked' organisations are more suited to the current environmental demands, over time, many will fail to reach their potential because participants will be ill prepared to design and operate the organisation according to its peculiar operating logic. Consequently, it will be necessary to form new conceptions of working relationships; but it may go further than that. It is not possible to separate a work-related mind-set from one's total world-view. Work plays a central role in our lives and in our concept of our selves and our relationship to the world and others (Banner & Gagne, 1995). It is possible that the onset of these new forms of organisation herald more than just a reorientation in organisational paradigm. If people are to operate successfully in the VO, it is likely that there will have to be a concurrent shift in more basic levels of cognition.

The traditional organisation was confined within a building, not because that is a good way of organisation in and of itself, but because it was necessary. It was necessary because it was the only way people were able to communicate readily. Even though close physical proximity is not necessary any more, the premise that an organisation exists in a specific locality is hard to dismiss; and so it is with all paradigm shifts. By definition, a paradigm shift implies significant change because it is the widespread shifting of a mind-set on very fundamental level (Kuhn, 1970). It is primarily for this reason that the phenomenon of VO is of great interest to Organisational Psychology.

Within change management theory there is some question as to whether people's belief systems will change if the structure of the organisation is changed. It is often the case that the belief systems will prevail and the structure will revert to its old form. However if the belief system changes, and the structure of the organisation is changed to suit, the new belief system will be reinforced and the new structure may endure (Schultz, 1994). But belief systems do not change overnight. So from a cultural perspective, to enter into a form of work organisation, such as VO, that necessitates a such a significant departure from old assumptions, could be very difficult.

If VO is to become as popular as expected, defining and testing its success factors is likely to be a fruitful vein of research. There are many issues that are salient from a psychological perspective. There will be great demand for knowledge of the area that is based on sound empirical research. A theoretical conceptualisation of the basic social processes of VO is required.

Recap

The rationale so far has been that, on a very fundamental level, the VO presents social conditions that differ significantly from those present in the conventional form of work organisation. Consequently it has been argued that, from an Organisational Psychology perspective, the most fruitful angle to approach the examination of a VO is to look at the 'basic social processes' present in VO. The following discussion of culture and organisational culture draws a connection

between the notion of 'basic social processes' and the theoretical basis of organisational culture concept.

Chapter III

ORGANISATIONAL CULTURE

The following chapter discusses the broad concept of culture and its central role in social interaction, and the concept of organisational culture. This is concluded with a discussion of the relevance of the culture concept to the examination of VO.

Culture: A Social Construction of Reality

The concept of culture originates in sociology and anthropology. It is a dynamic process intrinsic to social interaction whereby meaning is created and maintained. The word "Culture" stems from "*cultivate*". It is essentially the process by which reality is cultivated. Berger & Luckmann (1976) call this cultivation the "Social Construction of Reality", a social process whereby members of a group or organisation form common frames of reference that are socially created, maintained, and changed through a process of social interaction in which meanings are negotiated, and reinforced both implicitly and explicitly. Each individual has a particular conception of reality as a function of his/her own individual perspective. However, a group of people that exists together for any length of time, necessarily form some degree of implicit agreement across their individual perceptions of reality to form a collective reality.

The learning of behavioural norms from others through this process of socialisation is fundamental to human interaction. It is an essential element in learning of what is and what is not desirable and/or (un)acceptable, and remains important throughout one's life. It is the way in which we identify which thoughts, actions, perceptions and feelings are appropriate in the context of our social situation. Through socialisation within the group the individual learns which behaviour is appropriate to the group and consequently the individual's behaviour has meaning, and is perceived as normal by the group. Without this knowledge we cannot achieve the sense of psychological stability that is so important in the chaotic environment created by the extreme complexity intrinsic to human interaction (Berger & Luckmann, 1976). This sense of 'stability' (read sanity) is derived from the knowledge that our perception of social reality is shared by our peers. It is essential for communication, and basic to being human. Human beings are essentially social creatures. Our ability to communicate arguably forms the essence of our humanness. However, in our infinitely complex social world it is necessary to make certain predictions and presumptions. One of the most fundamental of which is that those we interact with, see the world in the same way as we do. It is only in this way that we are able to assure ourselves that we 'know' the meaning of other's behaviour and they 'know' what we mean. Thus there come to be certain implicitly agreed upon rules among any given group. This pattern of assumptions can be called 'culture'.

Within each culture there are a whole range of subcultures such as age groups, youth cultures, sports cultures, and organisations. Each is a subset of the societal culture in which it exists, but at the same time has its own behavioural imperatives.

Culture is multi-layered. On a very fundamental level we can say that all people in the world, except those we choose to call uncivilised, belong to the civilised culture. Then all those who live in industrialised countries belong to an industrial culture. Each country has its own culture. All those who belong to an occupational grouping share a culture. Organisational cultures form as subsets within these overarching cultures (Trice, 1993).

The extent to which two people share the same or compatible cultural assumptions largely determines the degree to which they are able to communicate effectively. If assumptions are not consistently shared communication becomes difficult. An extreme example would be the hypothetical meeting of a totally 'uncivilised' bushman, with a New York stock broker. Apart from the obvious language barrier, the basic underlying worldview of these two people would be so different that meaningful communication would be rendered all but impossible. The same phenomenon can occur in business when two people from different countries communicate—and to a lesser extent, two people from different professions or organisations.

As communication is one of the fundamental ingredients of a successful organisation, this analogy is directly relevant in the context of organisational functioning. If two people from the same organisation have significantly different mindsets (or few shared cultural assumptions), the effectiveness of any communication will be less than ideal. This can occur, for example if the people concerned identify with different professional groups. For instance a person steeped in computer culture may have very different perceptions of the world than

someone coming from a human resource background. Unless these two people have spent a significant amount of time together in direct communication and have developed a shared set of assumptions, communication of any complexity may be difficult (Hofstede, 1991).

Organisational culture

Taken into the realm of organisational analysis, the cultural approach is a research paradigm in which the organisation is seen as an open system in which the primary variable is the collective mind. As people group together with a common purpose their individual mind-sets interact and with one another and a collective mind-set emerges.

Organisational culture is usually thought to be comprised of

- **Shared values** - social ideals about the way things should be
- **Belief systems** - beliefs about the way things are
- **Paradigmatic assumptions** - assumptions about the way things are, and the way things should be, that are *so* taken for granted that they become a given. They become subconscious. They include assumptions about the nature of time, space, and causality.
- **Cultural artifacts** - symbolic manifestations of culture such as rites, rituals, myths, and norms, e.g. meetings (Schultz, 1994).

The first three can be thought of as the 'vessels' of culture. In contrast, artifacts are *manifestations* of culture, not culture itself. They have to be interpreted in terms of

the organisation's culture. For instance the formal structure of an organisation is an expression of that organisation's dominant myths concerning effective organisation.

Defining Organisational Culture

While there is general agreement that culture is an important variable in the organisation, there is less agreement as to exactly what culture is and how it should be studied. Some theorists see it as a critical variable — something the organisation has (e.g., Trice & Beyer, 1993) while other see it as a 'root metaphor' — something the organisation is (e.g., Smircich, 1983). Each perspective has spawned (or has been spawned by) different research questions and methodologies (Smircich, 1983).

The attractiveness of the culture-as-a-variable perspective, is that it implies that culture can be used as a tool by management to control and improve organisational functioning. The assumption is that organisations with internal cultures compatible with their strategies will be more successful. This conceptualisation is consistent with the functionalist paradigm which views the social world as expressing itself in terms of stable and predictable relationships between observable elements known as 'variables'. Culture viewed as a root metaphor goes beyond the conceptualisation in which the organisation is seen as a mechanism (whether machinelike or organic), to view the organisation as an 'expressive form' or manifestation of human consciousness. Research from this perspective explores the phenomenon of 'organisation' as subjective experience and investigates the patterns that make organisation possible. Culture is seen as a shared pattern of values, beliefs, and cognitions (Smircich, 1983).

The two conceptualisations imply different research questions and methodologies, but it is arguable whether they are necessarily mutually exclusive. It is argued here that they are not. Rather, the two conceptualisations can be seen to represent two levels of the same construct. The root-metaphor deals with levels of culture that are deeper than those dealt with by the variable conception. ('Deeper' meaning that they are less amenable to manipulation, and also that they are more subconscious and thus less accessible for examination).

The main theoretical distinction between the view of *culture-as-a-variable* and *culture-as-a-metaphor* conceptualisations; functionalist and symbolic perspectives respectively; is analytic. They each dictate different research questions and methodologies and render different results. Table 1 shows the main differences between the functionalist and symbolic perspectives.

The functionalists tend to look at culture as something relatively superficial that can be manipulated, changed and controlled, whereas the symbolists see it as something that the organisation **is** and therefore that it cannot be manipulated.

According to Sackmann, (1991) the *structural* aspect of culture can be defined as:

*Sets of commonly held cognitions that are held with some emotional investment and integrated into a logical system or **cognitive map** that contains information about descriptions, operations, prescriptions and causes. They are habitually used and influence perception thinking feeling and acting.*

Table 1. The differences between functionalist and symbolic perspectives
(Adapted from Schultz, 1994)

	Functionalism	Symbolism
Key Question	What are the functions of culture to organisational survival	What are the meanings of the organisation to the organisational members
Key Assumption	Culture develops when organisational members solve problems of external adaptation and internal integration	Organisational members create meaning, and define the organisational reality upon which they then react
Analytical Result	A diagnosis of organisational culture and how it contributes to organisational survival. Theoretical models emphasising general characteristics	An understanding of the symbols and meanings of the organisational culture and how they are created by the members of the organisation. Narrative text exploring 'uniqueness'
Analytical framework	Universal	Context specific and organisational specific

The Formation of Organisational Culture

According to Schein (1991, p. 247), the process through which culture is formed is as follows:

- (1) A pattern of shared assumptions;
- (2) invented, discovered, or developed by a given group;
- (3) as it learns to cope with its problems of external adaptation and internal integration;
- (4) that has worked well enough to be considered valid, and, is therefore;

- (5) taught to new members of the group as the;
- (6) correct way to perceive, think, and feel in relation to those problems

The structure of an organisation reflects the underlying world-view of its founders and members. The mission, system of governance, and structure is initially determined largely by the founders. The beliefs, values and assumptions held first by the founders and then collectively by the organisational members are the basis of the organisation's structure, myths and rituals (Deal & Kennedy, 1982).

For example the classical organisation, characterised by hierarchy and bureaucracy, is a reflection of deep paradigmatic assumptions that originate way back in the industrial revolution and beyond. For instance, Cartesian reductionism is a deeply implicit feature of the dominant Western world-view. The high level of formalisation and centralisation typical of the traditional organisation is a result of a high level of horizontal and vertical complexity; this complexity is a result of the division of labour. The division of labour can be seen as a result of a belief that everything can and should be broken down into its component parts (Banner & Gagne, 1995).

McGregor's (1960) Theory X & Y model of management shows us that if the management of an organisation reinforces the belief (implicitly and/or explicitly) that people *need* to be supervised because they are naturally lazy (Theory X), then structure and processes will form that reinforces this belief. People *will* be closely supervised, and they *will* be treated as though they are naturally lazy. Carrot and stick reward systems and directive authority will be used. And as people are

socialised within this structure these assumptions are actualised because they become self fulfilling prophesy. Keeping in mind that this is a circular process, the organisations that we are socialised in since we are children (pre-school, school, university, work, leisure), also reinforce the belief system that created them. So the nature of our world-view and therefore our whole concept of reality is heavily influenced by the organisations in our lives (Banner & Gagne, 1995).

There are many variables impinging upon, and affected by, the culture of an organisation. External factors play an important part in the formation of a culture. The organisation adapts to the demands of the external environment in which it competes. A very competitive environment will elicit different characteristics than a non competitive environment. Internal factors also impinge upon the culture. For instance leadership practices based on Theory X will result in very different cultural styles than Theory Y assumptions. The philosophy and mission of the organisation determines what is valued by the organisation. The extent to which these values are recognised and shared by the members of the organisation reflects the strength of the culture. Norms and values are shaped by several factors including management styles and organisational structures. For instance reward structures that reward only the best performers tend to create a competitive culture, while those that emphasise negative incidents and punishment promote avoidance cultures. The expectations and norms present in a culture have important outcomes both on the individual level and the organisational level. For instance, on the individual level, motivation will be higher in the presence of achievement culture and low in avoidance cultures (Cooke & Burack, 1995). Reward systems are powerful vehicles of cultural norms. Depending upon what is reinforced explicitly and implicitly by the reward system,

different expectations are communicated concerning beliefs about customer loyalty, employee development, teamwork, and other valued characteristics. Traditionally, reward systems have served to magnify differences between employees and managers and divisions. Reward systems that are based on demonstrated competencies, integrated with performance, and shared with all members of the organization reinforce a sense of community and togetherness (Bohl et al, 1997). Table 2 summarises the variables that impinge upon and are affected by the culture of an organisation.

The nature of the environment, and the explicit features of the organisational structure and modus operandi create and reinforce certain cultural norms and expectations. This leads to outcomes both on the individual level and the organisational level.

Table 2. The Impacts on and of Culture (Adapted from Cooke & Burack, 1995, p.16)

Environmental / Organisational factors	Organisational Culture	Outcomes
<p><u>External Environment</u> (simple/complex, placid/turbulent) Economic Technological Social Legal Competitive</p> <p><u>Organisational 'Foundations'</u> Leadership philosophy, assumptions, power, continuity, history <u>'Emergent'</u> Missions, goals, strategies, policies, size, structures, technology</p>	<p><u>Culture</u> (Direction, intensity, Potency) Shared values and beliefs, Norms and Expectations</p> <p><u>Factors Leading to, and Reinforcing, Norms and Expectations</u></p> <p>Culture Bearing Mechanism Managerial styles Reward Systems Performance Appraisal Systems Decision Making & Influence Structures, Communication Structures, Stories, Rites, rituals</p>	<p><u>Individual Level</u> Motivation to perform Role clarity, Conflict Stress and Strain Job Satisfaction Self Development Intention to Leave</p> <p><u>Group Level</u> Co-operation, Trust, Problem Solving, Effectiveness, Co-ordination Creativity</p> <p><u>Organisational Level</u> Efficiency, Reliability, Adaptability, Quality Attitudes, Social Relations</p>

The outcomes of culture

The culture of an organisation generates strong but subtle pressures to think and act in certain ways. If an organisation's culture reinforces values such as authoritarian decision making, paternalism towards employees, quality over quantity, supportive relationships, the members of the organisation will adopt behaviour that reflects those values. Culture also relates to performance, although there is some debate as to the nature and strength of this relationship. One theory is that it is only when a culture is strong (i.e. shared widely and consistently among members of an organisation) that the relationship between performance and culture is strong (Furnham & Gunter, 1993).

Subcultures

In addition to the organisation's dominant culture there often exist several subcultures. Subcultures can differ quite significantly from the core culture in which they are embedded. Subcultures can form as a function of different occupational groupings, social groups, age groups, racial groups, or just about any definitive group identification. They usually share most of the elements of the core culture in which they are embedded but can also differ in many ways, and consequently, they either enhance, or deviate, from the central ideologies and assumptions of the core culture. Deviation is often dysfunctional in terms of organisational performance, but can also serve a necessary function (Trice, 1993). For instance the design department of a large organisation may need to have different behavioural norms than the security department. Ambiguity, creativity, and laissez faire norms may be productive in the design department, but in the

security department it is likely that such norms would be detrimental to functioning. Security is likely to be based on much more hierarchical, predictable norms.

Investigating Organisational Culture

Choosing a Methodology: Quantitative vs. Qualitative

In general, culture can be seen as manifesting on three levels. The first, and most easily observable is that of artifacts—the visible organisational structures and processes. The second is represented by espoused values—the group's affirmed strategies, goals and philosophies. The third and deepest level is that of the basic underlying assumptions, the unconscious, taken for granted beliefs, perceptions, thoughts, and feelings (Trice & Beyer, 1993). The first and second levels are easily observed but it may be as Schein (1992) suggests, that artifacts are easy to observe but may be difficult to decipher, and values may only reflect rationalisations or aspirations. To really understand a group's culture we must understand what is going on at a deeper level. Without this understanding we cannot decipher the real meaning of the surface phenomena and, worse, might misinterpret them because of the likelihood that one will be projecting one's own cultural biases onto the observed phenomena. Thus Schein advocates a clinical approach that delves deeply into the individual's fundamental assumptions.

In organisational cultural research there is considerable debate as to whether a qualitative or a quantitative approach is preferable. Those in favor of qualitative methods have argued that the quantitative approach cannot access the deep underlying facets of culture and therefore they do not really assess culture e.g.

(Schein, 1990; Smircich, 1983). While this may be true, proponents of quantitative methods, (e.g. Cooke & Burack, 1995) argue that it is not necessary to access such deep cognitions. They suggest that it is most useful to access behavioural norms because that is the aspect of culture that has most impact on actual behaviour. A criticism of the quantitative approach is that it can never be sensitive enough to capture the cultural themes of a specific organisation (Smircich, 1983). However, while it is not entirely inaccurate, this criticism is somewhat redundant when it is considered that the purpose of the quantitative measure is primarily one of comparison within and between groups (Cooke & Burack, 1995).

A large proportion of research into organisational culture, based on the assumption of culture as a metaphor, has utilised qualitative methodology alone (Xenikou & Furnham, 1996). Furthermore, many researchers maintain that due to the inherent complexity of culture, a qualitative approach is the superior method. It allows rich descriptions, and can deal with the inherently complex nature of culture with relative ease. Quantitative techniques on the other hand are seen to be too simplistic, incapable of dealing with the vast complexity of culture. However, qualitative analysis does not easily allow systematic comparison (Siehl & Martin, 1988). One of the important variables of culture is the degree to which agreement or consensus exists throughout the organisation or between groups. A high level of agreement indicates strong 'culture'. It is suggested that assessing the extent of this agreement is best done through comparative quantitative analysis.

To retain the benefits of both quantitative and qualitative investigation, Siehl and Martin (1988) advocate a 'hybrid methodology' that incorporates both approaches

into a consistent methodology. The unit of analysis they use is espoused values versus values-in-use. Qualitative analysis consisting of in-depth interviews and archival research is used to identify the salient values, and then, using that information, a quantitative questionnaire is developed to render data that is comparable (a) across different groups within the organisation, (b) longitudinally and (c) across organisations. Using a similar methodology, Hofstede, Neuijen, Ohayv & Sanders (1990) showed that culture can usefully be measured using quantitative questionnaires. Membership to an organisation explained a significant amount of the variance in questionnaire responses assessing perceptions of shared practices.

Xenikou and Furnham (1996) also point out that what is the most appropriate methodology essentially depends on the researcher's intentions regarding the findings. If we are to examine the relatively observable nature of behavioural norms regarding how organisational members are expected to act, quantitative methods are appropriate. However if we aim to delve into people's sub-conscious assumptions about the nature of reality it may be more appropriate use deep probing qualitative techniques.

It is generally accepted that quantitative methodologies are best used for the confirmation or rejection of theoretical propositions and hypotheses, and qualitative methodologies more for exploratory purposes, for the discovery of novel theory in areas of little knowledge (Bryman., 1988). The two approaches can be used cooperatively to enhance each other and compensate for each other's weaknesses (Siehl & Martin, 1988).

The object of science is to generate knowledge about natural phenomena, and that of social science, to generate knowledge about social phenomena. Primarily using quantitative methods, the conventional approach to this pursuit is the hypothetico-deductive paradigm whereby a hypothesis is generated and data is gathered in order to test the validity of that hypothesis. In its pure form, the generation of hypotheses is based on a-priori knowledge. This knowledge is obtained sometimes from previous research findings, but often simply from abstract deductive reasoning. Sagan (1977, p. 157) describes this process as follows:

A theory is put forward on fragmentary evidence, then an experiment is performed, the outcome of which the proposer of the theory could not know. If the experiment confirms the original idea, this is usually taken as strong support for the theory.

However, it is not always possible to have a priori knowledge of a domain. In the present context, it is suggested that VO presents a mode of organisation of which the parameters are insufficiently known. Therefore it is necessary to generate some knowledge before any hypotheses can be put forward (Glaser & Strauss, 1967; Glaser, 1996; Lather, 1990). An inductive approach is used that essentially represents a formalisation of the initial process of generating knowledge that will eventually enable the generation of testable hypotheses. By using the Grounded Theory method originated by Glaser and Strauss (1967) the theory upon which subsequent hypotheses can be generated is based on sound empirical observation rather than speculation.

The Significance of Organisational Culture in VO

The most common reason given for the current failing of the traditional form of organisation is a functional explanation. The increasing dominance of the information industry, heightening levels of global competition and the advancement of communication technologies are catalysts for new organisational forms characterised by a greater need for flexibility, speed and adaptability (Lipnack & Stamps, 1997; Rosman, 1997). However, this ignores the human factor. To what extent are these changes a reflection of changing values and perceptions of the people who create these organisations? To what extent are the worldviews of workers going to be incommensurable with the nature and demands of the new organisations? To what extent will the new organisations necessitate and create new mind-sets in those who come in contact with them? These are questions that can be answered by a cultural analysis of VO.

In our increasingly globalised, informationalised, unpredictable, and changeable work environment, people may be the only sustainable competitive advantage that an organisation has. The important role of the functional aspects such as technology and information systems is a given, but these are easily obtainable. The people, their ideas, their productivity, their adaptability to change, and their capacity to learn continuously are fast becoming the critical variable (Bohl, Slocum, Luthans, & Hodgetts, 1997).

Snell (1994) speculates that the new organisations will necessitate a new kind of employee. One who not only has the necessary skills and competencies, but also has a 'vendor mindset' that explicitly identifies how s/he can add value to the

organisation rather than expects to just do what s/he is told. In organisations based on fluid shifting groups, static job descriptions and employment categories will cease to exist. The subservient employee of old will become the 'business partner', seeing him/herself as responsible for his/her own career and for the success of the organisation. Rewards will increasingly be tied to the intrinsic value of work rather than purely material gain. Energy, imagination, competencies, and team spirit will be valued over rank, tenure, or "good behaviour" in compensation plans. The members of the new organisation will have to be socially mature, confident, independent, and competent individuals in order to be valuable players in the chaotic virtual environment. Consequently, there is a need to develop a shared mindset that encourages such things as high quality interpersonal relations, continuous learning and improvement, quality management, innovation, risk-taking, and entrepreneurialism, and, perhaps most importantly, trust (Snell, 1994). The decentralised organisation has to transfer decision making to those closest to the customer. This requires that all members trust each other to make accurate and informed decisions, that are in the best interests of the group, at all times. So apart from the functional empowerment that this requires, such as providing all with the most detailed information possible, and ensuring that everyone is educated in the intricacies of decision making, it is also necessary to create within the organisation the perception (and the reality) that trusting their colleagues is rational and advantageous. In many cases this perception may be totally incommensurable with some of the long held fundamental assumptions learned over time working in traditional hierarchical bureaucratic organisations.

This notion provides an interesting perspective from which to view the possible

impact of VO. For instance the question of whether or not it is possible for cultural knowledge to be transmitted and reinforced with minimal physical contact will be an interesting line of inquiry. CT/IT enables great connectivity but it does not necessarily enable collaboration. According to Lipnack and Stamps (1997) you need people together physically, preferably with drink in hand, before enough rapport can be created to enable real collaboration.

The changes and innovations in organisational structure implied by the emergence of the VO will have limited success if the organisational culture does not follow suit. Cultures need to provide the organisation with a sense of community or "glue" to hold the parts together and provide a sense of community ensuring that the vision and strategy of the organisation are known by all employees, and that these elements serve to guide their behaviour (Schein, 1992). This sense of community may be especially salient for organisations that are physically dispersed.

Bohl et al. (1997) observe that organisational change does not occur without people changing. Common initiatives for change such as team-building activities, organisational learning seminars, action learning projects, leadership development programs, reengineering efforts, and total quality management programs often have had limited success because the employees themselves did not learn how to change. Simply educating people is insufficient. Showing a person how to do something is not enough if it does not appear rational for them to behave in that way. It is necessary to make it clear why new behaviour is rational. The definition of 'rational' is that the implied behaviour complies with the cultural knowledge regarding how things 'should' be done—what is the 'right' way to do something.

Summary

As cultural research has become more popular over the last few decades it is increasingly recognised that many problems previously attributed to poor team work or lack of commitment, may actually be explained by simple communication barriers resulting from inconsistent cultural mind-sets (Schein, 1992). When dealing with a relatively undefined subject such as VOs it is necessary to take an exploratory perspective. In order to enable the informed generation of theory and detailed investigation of exact hypotheses at a later stage, it is first necessary to develop some general observations. Cultural analysis provides this. When we examine an organisation from a cultural perspective we can attempt to understand the basic reality present in that organisation from the perspective of those who created it, and exist within it. This renders a representation of the organisation on a very fundamental level and thus provides us with a sound platform for the astute formation of research hypotheses and generation of explanatory models.

The traditional conception of capital equipment, physical plant, raw materials, and human capital as the source of competitive advantage is becoming obsolete. Even the new 'resource-based' view of competitive advantage which focuses on inputs or resources (rather than the more traditional 'product market') is already requiring adaptation to deal with the phenomena of the information age. It is the organisation's 'intellectual capital' that will set it apart from the competition, an intangible quality that is extremely hard to define and measure. It is the source of the increasingly essential capacity for innovation and renewal (Stewart, 1994). The complex patterns of co-ordination and co-operation between people, and between people and intangible resources are emerging as the new, and perhaps the only real,

competitive advantage. These patterns rest on the foundations of communicated knowledge. Effective and efficient organisations provide access to 'tacit knowledge' which is the basis for higher performing internal and external organisational collaborations (Tucker, Meyer & Westerman, 1996). This knowledge is embodied in organisational culture.

The intention of the present research thesis was to gain a rich and holistic understanding of the basic social processes involved in VO. The phenomenon of VO is relatively new and so there is little existing empirical research or theory. For this reason an exploratory and descriptive research approach was desirable (Chenitz & Swanson, 1986). Grounded Theory as developed by (Glaser & Strauss, 1967) was chosen as the primary methodology. This was supplemented with a description of the culture in that organisation using the OCI as a quantitative measure of the behavioural norms present, enabling comparisons with normative data. A discussion of the Grounded Theory Methodology follows.

QUALITATIVE METHOD

The purpose of any theory is to explain, predict and interpret phenomena (Chenitz & Swanson, 1986). Since it was argued that the VO constitutes a fundamentally new paradigm and that it cannot necessarily be described in terms of existing theory, there is a pressing need to define the parameters of the new paradigm in its own terms. In the social sciences the generation of empirically based knowledge traditionally comes from deductively oriented inquiry. A hypothesis is logically deduced on the basis of *a priori* knowledge and then tested against empirical data. However when dealing with a novel phenomenon it is sometimes more prudent to take a step back and concede that supposed *a priori* knowledge of the area may be non-informative at best, and misleading at worst. Daft and Lewin (1993, p. ii) suggest that the initial examination of the VO requires a new approach “characterised by midrange theory and method, grounded research, and research that does not presume to test hypotheses empirically.” By taking an inductive stance, theory, and (ultimately) testable hypotheses can be generated from direct observations of the phenomena under scrutiny (Brytting, 1995) and thereby render a far more solid foundation for subsequent research designs.

The “Grounded Theory” methodology as defined by Glaser and Strauss, (1967) is particularly suited to this task because it is specifically designed to elicit theory directly from empirical data. It is an analytical inductive method that yields

empirically grounded theories regarding the basic social processes present. These can then be tested at a later date using other methods (Lowe & Glaser, 1995). Its purpose is to develop substantive theory that explains the basic social processes in a given social domain.

The Grounded Theory Technique

Grounded Theory is a research strategy that has been used extensively across a variety of social science disciplines. The fundamental premise of the method is that a theory must be derived from empirical data. It must be grounded in the data. It is an inductive, rather than deductive approach to the generation of knowledge. The objective is to elicit a set of central concepts directly from empirical data, and group them into theoretically related categories. The interrelationships between those categories provides a theory of the phenomenon that is much more than a descriptive account and describes the basic social processes present in the context in which the data was gathered.

It is implicit in the Grounded Theory method that theory emerges from the data and that this emergence occurs concurrently with both data gathering and analysis. Thus data collection, analysis and theory formulation are regarded as reciprocally related. In contrast to the deductive approach in which the researcher formulates a theory and then gathers data for the verification of that theory; the inductive approach involves gathering data and developing a theory to explain the nature of the data (Smith, Thorpe, & Lowe, 1995).

Data collection is guided by theoretical sampling on the basis of theoretically relevant constructs as they emerge from the data and continues until a point of conceptual saturation is reached. The gross features of the data are discovered from the initial sampling and then further sampling is driven by the data with the object of refining and expanding the emerging concepts and categories (Glaser & Strauss, 1967). Grounded Theory has some distinguishing features designed to maintain the "groundedness" of the approach. Data collection and analysis are deliberately fused, and initial data analysis is used to shape continuing data collection. This is intended to provide the researcher with opportunities for increasing the "density" and "saturation" of recurring categories, as well as for following up unexpected findings. Interweaving data collection and analysis in this way is held to increase insights and clarify the parameters of the emerging theory. The approach also argues for initial data collection and preliminary analyses to take place in advance of consulting and incorporating prior research literature. This is intended to ensure that the analysis is based in the data and that pre-existing constructs do not unduly shape the analysis and subsequent theory formation. If existing theoretical constructs are utilised, they must be justified in the data. Reading and integrating literature is delayed, not omitted, and is regarded as forming an important part of theory development (Chamberlain, 1996).

Analysis involves three processes, from which sampling procedures are derived, and which may overlap: Open coding, where data is "broken open" to identify relevant categories; axial coding, where categories are refined, developed and related; and selective coding, where the "core category", or central category that ties all other categories in the theory together, is identified and related to other

categories. In the early stages of a project, open sampling of persons, sites or documents, involving purposive, systematic or fortuitous procedures, is used to discover and identify data which is relevant to the research question. In later phases, relational or variational sampling is used, either purposive or systematic, to locate data which confirms, elaborates and validates relations between categories or limits their applicability. The final phase of a project involves discriminate sampling, with deliberate and directed selection of persons, sites or documents to confirm and verify the core category and the theory as a whole, as well as to saturate poorly developed categories. Two key procedures, asking questions of the data and making comparisons, are specifically detailed to inform and guide analysis and to aid theorising (Glaser, 1996).

The validity of qualitative research is not determined by traditional positivist notions of replicability and generalisability, but by its potential value and contribution to the participants, social research in general, and by the extent to which readers of the results find them valuable and relevant to their lives (Potter & Wetherel, 1987). The emergent theory should account for a phenomenon which is relevant and problematic for those involved so research questions are open and general, rather than formed as specific hypotheses.

Strauss and Corbin (1994) provide four central criteria for a good Grounded Theory: (1) It should fit the phenomenon, provided it has been carefully derived from diverse data and is faithful to the everyday reality of the area; (2) It should provide understanding, and be comprehensible to both the persons studied and others involved in the area; (3) It should provide some degree of generality, given

that the data are comprehensive, the interpretation conceptual and broad, and the theory includes extensive variation and is abstract enough to be applicable to a wide variety of contexts in the area; and (4) It should provide control, in the sense of stating the conditions under which the theory applies and providing a basis for action in the area.

The basic association between data and theory is the “conceptual code”. The code conceptualises the underlying patterns within the data. The process of coding the data breaks down the data and then reassembles it into logically related categories that form the basis of the theory. There are two basic levels of coding—substantive and theoretical. Substantive codes categorise the empirical substance of the data and theoretical codes conceptualise how the substantive codes relate to one another as hypotheses to be integrated into the theory (Glaser, 1978).

Substantive coding, sometimes called open coding, is the analytical process whereby the data is sorted into discreet conceptual 'boxes'. Events, or instances in the data are coded into as many categories as possible. New categories emerge and new instances fit into old categories at a rate of diminishing returns - i.e., saturation. The basic procedure in open coding is to ask of the data several questions: (1) What is this a study of? This question reminds the researcher of the original intents of the study and also that they might not actually be what was originally thought (2) What category does this incident indicate? (3) What is actually happening in the data? - What are the basic social process faced by the people in the scene? These questions ultimately facilitate the generation of a *core category*.

The core category is, according to Glaser and Strauss (1967), a category of concepts that is central to the data, reoccurs frequently, relates meaningfully to the context and appears to describe a dimension of that context in such a way as to suggest a relationship to a formal theory. Once a core category emerges the first delimiting analytic rule of Grounded Theory comes into play: Only variables that are related to the core will be included in the theory. If two core categories are discovered, the analyst concentrates on only one at a time (Glaser, 1978). The generation of this theory revolves around the emergence of a 'core category'. Once the core category is discovered, it is used as the focus of the analysis. Concepts that do not bear any relation to the core category are disregarded, but as Glaser points out, they can often be used at a later stage to formulate another separate theory.

Procedure

There were two distinct phases in this research project. The first was the qualitative phase comprised of the development of a Grounded Theory of VO. The second was a quantitative phase involving the use of the Organisational Culture Inventory to appraise the culture of the participating organisation. The participating organisation and the qualitative procedure is discussed here.

The Participating Organisation—Network Consulting Ltd.

Network Consulting Ltd. (NC) is a business consulting group comprising of approximately forty independent management and information technology professionals experienced in specialised areas such as high-level Management and Information Technology (IT) consulting, project management, code cutting,

software delivery, implementation, and training. The group has no fixed premises, no 'employees', and almost no formal hierarchy of authority - it is a '*virtual organisation*'. It has been operational for nearly 4 years and is experiencing considerable success. Each member is independently employed. The majority of its members are shareholders. Five 'directors' are elected annually from within the group. It is their responsibility to carry out administrative tasks, manage and protect the shareholders funds, approve and monitor projects, disseminate information within the group, and carry out Human Resource Management functions. Jobs are taken on the recommendation of any member from the group. A 'project team', comprised of individual contributors selected on the basis of the skills needed to complete the project, is then formed. Each contributor is remunerated on a percentage basis according to their individual contribution to the particular project. This continues for as long as the project is active.

Communication within the group is conducted primarily through electronic mail (e-mail), and the internet via a Company Internet Site used to disseminate information among members and clients, but regular meetings of the whole group are scheduled monthly. Consensus is sought on most decisions affecting the group.

The group does not have any employer/employee relationships as such. With the exception of the democratically elected directors who have some authority in administrative matters, there are no hierarchical relationships. All members of the organisation are seen as equal partners in a business enterprise. New members are brought into the group only on the recommendation of a director. There are some

established criteria for membership, such as being successfully self employed, and possession of skills or knowledge supportive (necessary) to the group.

The Participants

Initial interviewees were selected in order to obtain a representative sample of the various kinds of people in the organisation. It was ensured that the sample included new members and old, people involved in computer programming (cutting code) and consulting, young members and old, and both genders. Other than that, the selection of participants was driven by theoretical sampling procedure whereby the interviewees were selected in order to develop emerging codes and categories.

In order to legitimise the project, before the sampling began, an email message (Appendix A) was circulated among the group by one of the directors introducing the research and researcher.

Each potential interviewee was contacted by phone or email and invited to participate in an interview of about 1-2 hours. All those who were contacted agreed to be interviewed. A time and place was organised over the phone. The interviews all took place in the interviewee's home or place of work. All interviews were between one and two hours in duration.

Interview Methodology

In choosing an interview technique for the deciphering of culture there are several issues that must be addressed. Either a completely unstructured format that allows

the interviewee complete freedom concerning the topic of discussion, or a very structured questionnaire-like approach that elicits very specific and focused answers from the respondent can be used. The former approach offers good validity in terms of accessing what the interviewee 'really' thinks rather than biasing their perceptions with leading questions etc. However, it can be problematic if the interviewee is reluctant, or unable to talk about the topic of interest, or alternatively, if they speak at great length on irrelevant topics. The latter approach offers superior reliability and objectivity, but is entirely dependent on the quality of the questions. That is to say, if the researcher does not already have an in-depth understanding of the phenomena under investigation, it is difficult to formulate questions that will access this information. As Schein (1992) and Sackmann (1991) point out, the dimensions of culture are in many ways inherently unknowable to the outsider. It is therefore often not possible to predetermine the responses of the respondents to such a degree as to be able to construct meaningful questionnaire items. This is perhaps even more true in the case of the culture of a VO which is even less of a known quantity. Structured interviewing may avoid some of the vulnerabilities of qualitative method, but it also lacks some of its strengths. The more structured an interview, the more the responses are predetermined by the questions (Weiss, 1995). This type of preconception goes against the basic inductive logic of Grounded Theory. Furthermore, given the ubiquitous and subconscious nature of culture, respondents cannot be expected to immediately reflect upon their cultural context and describe it verbally (Sackmann, 1991).

In order to deal with these issues, a methodology Sackmann (1991) calls 'issue-focused' interviewing was used. It is designed to elicit the tacit components of

culture, and at the same time enable some comparative analysis across individuals and settings. Completely unstructured interviews could potentially render information that is completely unrelated and therefore incomparable.

This is consistent with the interview procedure advocated by Glaser and Strauss (1967) for Grounded Theory. The participant is asked 'open ended questions' and the subsequent 'stories' are listened to with as little interruption as possible. Further questioning takes the form of 'probing' and requesting elaboration and clarification.

Data Collection

Each of the twelve interviewees participated in one interview of approximately ninety minutes. Interviews were conducted over a four month period. On arriving at the scene the interviewer obtained informed consent (Appendix B) and presented the interviewee with an information sheet (Appendix C) that outlined the purpose of the study, the requirements to be made of the interviewee, and also what they could expect from the researcher. It was made very clear that the interview would be anonymous and confidential. The use of the tape recorder was permitted by the interviewee in every case. The interviews were taped (audio) and transcribed verbatim immediately following each interview. As suggested by Glaser (1992) all transcribing was done by the researcher in order to increase immersion in the data.

Following Sackmann (1991), in order to access the cultural knowledge of the participant, an initial discussion topic, common across interviews, was provided. The interviewee was not initially asked to reflect directly upon the culture of the organisation. The initial question was always of the basic form: "Tell me about NC

and your experience of it". Following this, each interview was more or less allowed to follow its course. The interviewee was able to talk about what they considered to be relevant. According to Sackmann (1991) issues that are considered most important/salient by respondents render the best insights because they are the most differentiated within that person's cognitive structure. For this reason each respondent was also encouraged to talk about what they thought to be important issues facing the organisation, what things had created problems or conflict, what they considered to be unique, problematic, and good about the organisation, how they would improve it if given the chance, and what they thought of the virtual model in general.

More specific questions were introduced to later interviews on the basis of concepts emerging from the analysis of initial interviews.

Data Analysis

The NUD*IST¹ software package (Q.S.R., 1997) was used to manage the interview transcriptions. In accordance with the Grounded Theory method, each interview was coded before the next one was conducted. The transcriptions were coded line by line. Following Glaser (1978) this involved reading through the data continually asking the questions: "What is this a study of?" "What category does this incident/perception indicate or fit?" "What is actually happening in the data?" "What are the basic social psychological problems faced by the participant?". Throughout this process the codes were constantly compared and grouped into

¹ Stands for: Non-numerical Unstructured Data Indexing Sorting & Theorising.

concepts which described the underlying meaning of the data. The concepts were then grouped into categories of theoretical similarity. All the while there was the expectation that one of these categories would emerge as a core category.

QUALITATIVE RESULTS

~ A Grounded Theory of Virtual Organisation ~

The initial aim of this research project was to render a rich and holistic description of the organisational culture within a VO. The rationale for this was that the VO involves distinctly different conditions of social interaction to those of the conventional organisation. Grounded theory was chosen as a methodology because it is specifically designed for studying social domains for which there is little or no existing knowledge or theory. The strictly inductive focus of the Grounded Theory method however, precludes preconception of the outcome of the research. One of the central precepts of Grounded Theory is that the analyst doesn't necessarily know at the outset what the theory will describe. This is determined by the data. If done properly the Grounded Theory method will reveal concepts and categories that are relevant to the participants. The subsequent theory will therefore reflect this relevance and not the analyst's preconceived ideas of significance or interest. "The primary goal of Grounded Theory is to generate a theory that accounts for a pattern of behaviour which is *relevant and problematic for those involved*" (Glaser, 1978, p. 93). Thus it was necessary to temporarily drop the concept of culture and its associated concepts as defined in the literature, and take a conceptual step backwards to examine not culture, but rather the 'basic social processes' present in the data.

The core category that emerged from the analysis was a two dimensional concept consisting of a somewhat dissonant, and *apparently* paradoxical, relationship between two central variables of VO. “Achieving Symbiosis”, the process of reconciling these two potentially competing motivations emerged as the basic social process of this study. It centers on an uneasy coexistence of two necessary conditions to the virtual mode of organisation.

- (1) The maintenance of independence and autonomy of all participating organisational entities, and
- (2) the ever-present need for co-operation and collaboration.

The apparent paradox lies in the fact that while the success of VO rests on its ability to maintain temporary collaborative relationships, the natural motivation of two independent business entities is (almost by definition) to self-maximise (Powell, 1992). Consequently, any given node of the virtual organisation is at once faced with the competing motivations to collaborate on a temporary basis, and to maintain a competitive self-sufficiency. The attempt to resolve this conflict emerged as the core variable of VO in this study. It appears in all interviews and therefore holds significant relevance to the people involved. It is certainly a salient variable of virtual organisation.

Within the process of “Achieving Symbiosis” members of the participating VO are concerned with four central processes other than “Maintenance of Independence” and “Collaboration”. (1) “Regression Towards the Conventional” is a process within the VO characterised by a desire to revert to more conventional

organisational structures and processes. (2) “Formalising the Informal” is a process whereby the informal ‘Networking’ aspects of traditional organisation are formalised into the specific procedures of the VO. (3) “Self Management”, as opposed to a hierarchical system of management guides action within the VO. It is a self managing system. (4) “Independence Overload” refers to the perception by some that the virtual mode of organisation over-emphasises the role of independence. Each concept is discussed in turn. Maintenance of Independence and Collaboration, while subsets of the core category, are discussed first because together they combine to form the core category.

The Maintenance of Independence

It is a central tenet of the virtual model that all participating entities remain independent of one another. It is fundamental to the operating logic of VO (Martin, 1996). Only through ensuring that each node of the VO is self-sufficient, can the organisation develop the fluidity and agility that enables the responsiveness and adaptability that is the basic strength of the model. If the members were *dependent* on the organisation for their livelihood, much of the strength of the model would be negated. The VO relies on its members being able to keep themselves afloat until they fit into a project team. Otherwise it would be necessary to pay retainers or salaries and another major strength of the model—the lack of overheads—would also be lost. It is only through ensuring that all members remain independently self sufficient that a VO has the ability to quickly form project teams specific to each job without the overhead of full-time retained employees. If members are not self-sufficient they will not survive the times when they are not part of a project team.

It is fundamental to VO that there are no 'employees'. There is an implicit assumption in the design of the organisation that there is no guarantee that the organisation will necessarily provide work for the members. Therefore proven capacity for self sufficiency is prerequisite to joining.

Essentially, if you are a successfully employed consultant and you want to work with other people and want to enjoy the synergy of working with them then sometimes you will be involved in a project and sometimes you will generate projects. As opposed to, join NC and we'll guarantee you work, you know that's a conventional corporate structure. If we wanted that we'd have an MD and become just another computer company. There are some of us who want to go that way, but they tend to not stay. You know some people want to have buildings and own assets and all those good things, using money that they didn't generate (Interview 3, Line 56).²

Some people within the organisation find this arrangement acceptable and some do not. For some it is a reinforcement of a personal value placed on individuality and independence. A desire to be self-reliant is fulfilled by the virtual arrangement.

The strength of the model is that you never have to put up with management bullshit. We can never be put in a position where our boss is telling us to do something we believe to be stupid (Interview 11, Line 406)

This is a sentiment that is common across interviewees. It is a desire to be autonomous and maintain one's freedom and individuality. These are central values in the culture of NC and are supported by a strong emphasis on personal responsibility. A central premise of the organisation is that it does not represent a

² Excerpts from interviews are referenced by Interview number and line number according to the transcripts in the Nud*ist format. Grammatical errors have been corrected and superfluous text removed, but essentially the quotes are verbatim.

paternalistic presence. It is not there to look after members who can't look after themselves.

No matter how often we say look, NC does not guarantee you work, and they say yes I understand that, and they join us, and six weeks later they still say now, where is that work? Its not that way at all. There is a way to do it, and that is you go and find your own work (Interview 3. Line 471).

The expectation is that people who can successfully look after themselves will naturally benefit from the resource provided by the organisation, but those who cannot will not be able to make the most of that resource. For some the arrangement is not as successful.

NC is an excellent idea that is utilised by relatively few of the members because it turns out that some people join us and they don't get work so they have to go and get a full time job, and that's OK. It is not appropriate that they are here. There are a lot of people who would like to think that they can work for themselves but it turns out that they can't. So they go (Interview 3. Line 466).

This perception is evidence of an expectation that the model will suit certain people and not others. It is reinforced by the organisation's one major selection criterion: The requirement that all prospective members be successfully self-employed prior to their joining the group. This is designed to ensure a capability for independence. An interesting side effect is what could be called the 'primadonna' effect. There is a perception within the organisation that there are disproportionate number of "strong personalities" among the members and that this causes conflict within the group. The powerful individuality of some members leads to a negative perception of arrogance and dominating behaviour in organisational activities.

One of the things about having a group of very independent people is that some of them are rather arrogant. And when they display their arrogance, it's sometimes quite offensive (Interview 2, Line 670).

This has caused conflict to the point that people have left the organisation as a result. In one instance a disagreement between two members of the organisation, which subsequently led to one of them leaving, is described as follows:

That's really an example of someone who is just simply independent, an independent consultant who just doesn't really work very well within a group. And it could have been anyone else who could have left, its not necessarily anything that's necessarily attributable to this particular person, its just a characteristic of someone who is a very strong personality, and who is independent (Interview 4, Line 273).

This problem could be ascribed to an overemphasis on independence and individuality norms, created by the selection criteria. The selection procedure results in a specific kind of person being selected into the organisation. It is likely that there would be an identifiable set of personality traits associated with the sort of people selected in this process. These people may share certain expectations and behavioural norms as a function of that similarity, and independent of their enculturation within the VO.

Collaboration

Equally important as the benefits gained from maintaining independence, is the capacity of individual members to take on a project that requires a whole team of people. The VO provides a unique resource for the independent member that consists of the ability to quickly put together a project team with a capacity far greater than the individual's own skill-set. The individual is able to significantly

enhance his or her own efficacy.

Where NC really kicks in is when an individual member has a large project requiring teams of people, or doing something outside the person's skill set. Instead of walking away and saying "Look its not for me", they can say "Well I have some colleagues that can do this", and then you bring in NC (Interview 3, Line 475).

Each member is first and foremost an independent operator. When they come across a project that they cannot handle alone, the organisation is there behind them to bolster his or her individual capacity.

Independence is definitely important, but the resource of the group is too. Having someone to draw on if your client needs somebody to do a particular job. It gives you a lot of strength having that whole group behind you having that pool of resource, being able to go to the client and say hey, we can address your needs. So its very valuable to have that. Like when you go along to a client, if you have a large organisation behind you, like if you mention Microsoft or IBM, people's eyes light up, they think oh yeah, this person has the expertise and the ability to do what I wan. But if you go in as one independent consultant, they say "Hey! who are you? I don't trust you." (Interview 4, Line 552).

As well as providing a source of strength, the existence of the VO network gives the individual more credibility in dealings with clients and large projects.

In theory this option is open to any independent operator. They can always contact other people with the intention of joining together to form a temporary alliance in order to do a large project, but this arrangement would have no basis on which trust could exist between the various parties. It would be far more cumbersome and would take considerably longer to organise and implement. The collaborative facet of the VO model is such that trust is enabled between what are essentially

independent entities. According to Achrol (1997) the culture necessary for VO is inherently 'relational', and involves an emphasis on development of long-term mutually beneficial relationships. Mutual trust in a relationship reduces the incidence of self-serving behaviour and thus eliminates the need for structural mechanisms of control. The strength of the VO model in this respect, is that the possibility of forming good working relationships quickly is increased due to procedural documentation (such as a non-disclosure agreements signed by all members), shared experience, and a common interest.

There is a certain trust amongst the members, they can share more about planned projects than they could with someone who was not part of the organisation, who hasn't proven in the past that they can stick to the non-disclosure agreement. Basically you know someone's track record, when you have worked with them on a project before, so if you get together 5 people from NC for a project the chances are that 4 maybe 5 of them have worked on a project together before, so they already know each other's strengths and weaknesses (Interview 12, Line 882).

The organisation is described by one respondent as a playground. A set of structures and procedures that enable the individual to fly. Ideally it is an adaptive structure that can be many things to many people. One person described it metaphorically, as a living thing.

It's like a jellyfish or maybe a flower would be better, something that is open to the things that come in, and its a moving thing. What I visualise is something that is not static, that is moving, not just in the breeze, not any which way, but is moving for a purpose. Like a particular flower that is there, its purpose is to attract bees, or whatever a flower does, so its got its role, but its not structured, its got a purpose, but I guess the purpose is that its got different purpose. For example it can be there as its flower playing its part in nature, or in someone's garden as a thing of beauty that you can chop off and put in a vase, its purpose suits whatever the need is (Interview 7, Line 533).

This is further evidence that the whole focus and purpose of the organisation is on enhancing or extending the capacity of the individual without detracting from the individuality and autonomy of that person. One of the difficulties experienced by self employed people is that there is always the need to find work but not always the time to do so. Membership to the VO provides an extension of the individual's capacity to find work.

What the NC group does is it provides eyes and ears that are open in places that you wouldn't otherwise have them, because everyone knows everyone else. If they come across an opportunity, if you are the right person to do it, it will find its way to you because of the appropriate financial incentives for everyone involved. It gives you a network of people that you've known for a long time, and whose abilities you understand and you can trust them. (Interview 3, Line 135)

Another aspect of the collaborative relationship is that it lessens isolation and insularity of independent employment. One of the things identified in the literature, (e.g. Bergsman, 1995; Bleeker, 1994; Connelly, 1995; Downey, 1995) as being problematic for the independently employed, is the social isolation that it can cause. The alleviation of this problem is something that is valued amongst the members of NC.

I was a successful and self employed consultant, but I got lonely. There's a collegiality aspect to it. You are not on your own, there are people around who you can go and have a yarn with and bounce ideas off. And its financial, it gives you access to major projects that you wouldn't otherwise have access to. So NC wasn't set up in order to make money, it was set up as a peer group and it turned out to be very successful, and we make a lot of money. But that wasn't its purpose (Interview 3, Line 130).

At the same time however, it is hard to really get to know people in the dispersed environment of the VO. This means that it is difficult to develop the trust and mutual understanding that leads to real cohesion in work practice.

It's a real challenge to put together a Virtual Organisation and build a strong team culture because it almost argues against the existence of a culture...I'm sure NC has a culture but it doesn't have the sort of interpersonal strengths that people working on an everyday basis have (Interview 11, Line 229).

The existence of a mutual understanding, whereby if you know someone very well you are able to predict their behaviour in a given context, and thereby be able to rely on them to do what you expect them to do, is central to the culture concept. It is the reason culture is important in human interaction (Berger & Luckmann, 1976). Within the VO it is potentially difficult to develop this relationship with anyone, (let alone everyone), due to the geographical dispersion, intermittent contact and transience. Members have little actual interaction until they join together in a project team. It takes a long time to form the mutual understanding that is necessary for cohesive interaction (Trice & Beyer, 1993). Within the group there is a perception that this level of understanding does not really exist.

I might be getting to that stage with XXXX³ because we have had a lot of contact. But he would be perhaps the only person that I would know well enough to have a reasonable idea of what he would think in a given situation. There are other members with who I am on the level of personal acquaintances . people who I would probably get on quite well with if I was to work with them, and they are certainly past the initial meeting thing . but I wouldn't say I know them.... This sort of thing comes from working together on common projects and there are real difficulties with working together and then disappearing off to the four corners of the world again (Interview 11, Line 259).

³ Name is deleted to preserve anonymity.

An ecological parallel

The notion of collaborative independence has an interesting parallel in the natural world. The symbiotic relationship present between organisms in an ecosystem consists of a mutual interdependency comprised of independence and co-operation (Wilson, 1992). Within the data the presence of this relationship in NC is revealed metaphorically by one respondent as follows:

Its probably, you know how in nature you get symbiosis ... organisms that actually help each other, you could actually say that NC is symbiotic. Its a whole gang of independent people all with their own companies helping each other out and providing services to the other guy. So there is a symbiotic relationship, a synergy (Interview 8, Line 325).

In a natural ecosystem all members of that system are totally autonomous and yet completely interdependent. Alone they would not survive but within the ecosystem they thrive and multiply. The validity of this comparison is reinforced by another metaphorical description where NC is described as a colony of unicellular organisms.

It's like a colony of unicellular animals. Its not a machine. It's a collection of organisms rather than an organism. There are some machine aspects, I mean for example the communication and the finances are just tick tick tick. I mean its all just so easily organised, we put in the time sheets and apparently effortlessly, the customer is billed, the money is dispersed according to the percentages. We have software to do all that and it runs like a machine, like software. But the dominant metaphor is not the machine, and, yet it doesn't have the sort of culture that you would say it is a family or a living organism, because it is too fragmented, so a sort of colony is the best metaphor (Interview 11, Line 593).

NC is like a colony rather than a single organism in that each entity can exist independently but operates much better in the context of the colony. In contrast, the

normal organisation is comprised of people or entities that cannot operate independently of the organisation. They are entirely dependent.

There is a striking similarity between these descriptions and the basic nature of VO as revealed by the core concept. For this reason the core concept – i.e. the intertwined relationship between collaboration and autonomy, is conceptualised as *a symbiotic relationship*. It is hereafter referred to as an *Uneasy Symbiosis* in order to emphasise the fact that there is a certain degree of discord between the two motivations. It is this discord, and the subsequent attempt by members of the VO to alleviate it, that characterises the underlying process of the core category. It is the basic social process of the Grounded Theory.

The Core Category—An Uneasy Symbiosis

The coexistence of (a) collaborative relationships and (b) the maintenance of independence, really gets at the essence of both the strength, and the dilemma of VO. It is an arrangement that enables the benefits of maintaining the autonomy and independence of participating entities to be retained, while at the same time reaping the benefits of collaboration. The individual retains the autonomy, flexibility and freedom of being an independent actor while at the same time being backed by a large group which increases that individual's ability to effectively take on jobs that normally only large organisations are able to tackle; while also providing social contact, peer support and mentoring relationships. For example:

When I think about NC I always go back to the way I described it before, which is the way I think it actually works, which is the value of having the independence of the individuals and the autonomy of the individuals, plus

the value of having the extra resource for the large jobs, plus the mentoring as well (Interview 4, Line 542).

Its really like many other groups, in that you are in it for what you can get out of it. And specifically for a work type thing that is money, you are in it for money, you are in it to get revenue and a more pleasant way of earning revenue than if you were on your own otherwise you would be totally on your own. NC is unusual in that people can actually be totally on their own and yet be part of the NC group.(Interview 11, Line 7)

VO is in many respects a way of 'getting the best of both worlds'. The symbiotic relationship creates a condition of low risk. It is possible to be a member and achieve the associated benefits without committing too much. This is one of the main reasons the virtual mode is appreciated by its participants.

The advantage of VO is that it is non exclusive. I can have my foot in the camp, but whatever opportunities come from that don't preclude me from chasing or doing anything else. So it's a no loss situation. It's a risk free option, both for the individual and the company (Interview 11, Line 444).

The symbiotic relationship, intrinsic to the operating logic of VO, is the characteristic that lends the model its greatest strengths, i.e. the fluidity of form and configuration born out of independence, and the power and responsiveness born out of the ability of the independent entities to collaborate quickly and effectively, but it also represents a significant hurdle. The two facets of the concept are potentially in conflict. There is a dissonant relationship between the need for independence and the need for collaboration. It is an Uneasy Symbiosis.

The dissonance between autonomy and collaboration—An element of unease

There appears to be some tension created by a perception among members that there is some discord between the two facets of the core category. Many of the problems of internal integration experienced by the organisation can be connected

to the dissonance created by that perception. For example there has been a lot of discussion surrounding the issue of marketing. As the organisation was originally conceived, it was the responsibility of all members to market themselves and the VO. In line with the emphasis on independence this was thought to be the obvious way to market the group. Given that independence is retained, each member, as a function of their previous success as an independent operator, was supposedly a competent marketer. The idea was that everyone would benefit from everyone else's marketing. However, this has not panned out quite as expected. It turned out that the marketing role was being fulfilled by only a few individuals. Not everyone turned out to be competent marketers. This can be interpreted as evidence that some of the participants joined the group with false expectations. They saw it not as an extension of their independence, but more as a supplement, to compensate for a deficiency in their own capacity for independence.

Another manifestation of this problem is the difficulty the organisation has experienced in achieving attendance to the regular monthly meeting. It has been recognised that there is a need for members of a VO to meet on a physical basis. A monthly meeting was established to fulfill this. The purpose of the meeting has been to complete administrative functions and also to provide a social gathering in which ideas and problems can be discussed. Initially attendance was fairly good but it has steadily dropped off until only about 25% of the members attend. It is suggested by one interviewee that this is a natural result of the tension created by the play-of between collaboration and independence.

When you are an independent consultant you rely on your income being generated from yourself. You have to rely on yourself. So if you are not out

there finding jobs for yourself then you are not getting any income, you are not going to be able to eat. So a lot of people are focused on the fact that they need to put their efforts into getting income for themselves. so it tends to be a sort of self-centric. Depending on what sort of projects you are doing, they may find that if the NC group wants to get together and organise something like a conference or one of these meetings, but they are just not interested because they are far too busy just trying to get work. So that is where the priorities of the individual can get in the way of allowing the group to work as a group. (Interview 4, Line 542)

The dissonance is reconciled by some and not by others. A prevalent manifestation of the dissonance is the perception that the organisation is 'working only for a few'. This translates as a perception that certain members of the group are not being as co-operative as they might be, and instead are using the efforts of the group to their own ends. This can be interpreted two ways. It may be a reflection of the inability of those who are dissatisfied to work within the virtual environment due to the fact that they do not understand its operating logic, or because they lack the necessary knowledge, skills and abilities. Alternatively however, it may be that there is a group within the organisation that is in fact acting selfishly and are themselves not complying with the operating logic of the organisation. It is most likely a combination of the two.

The dissonance is also exacerbated by the condition present in the organisation that all joining members must be independently successful consultants prior to joining. The consequence of this is that the people who join are invariably strong minded, willful, individualistic people.

The whole structure of the group is really bringing together two competing forces. The organisation versus the individual. And I think that within the group you have the people who are independent consultants because they are the sort of people who become independent consultants because they want to get out of organisations. So you take a whole lot of people who are

really fiercely independent, who have their own very strong views, and try and put them in an organisation. What's going to happen?.. Its not going to work. And I think that is what is happening with NC (Interview 4, Line 262).

There exists a certain amount of confusion as to exactly what the role of the group is. Some see it as something that may or may not provide work for them, while others see it as something that *should* provide work for them. The difference is that the latter become dissatisfied with the organisation if it does not provide them with a constant flow of work. This perception is perhaps best explained by a misunderstanding of the operating logic of the model, i.e., that all members must take responsibility for their own employment and not rely on the group to do so. It is a question of possessing the appropriate mind-set. Those who fail to grasp this fundamental precept of VO will inevitably find the virtual model unsatisfactory. To optimise success, the VO must ensure that its members understand the operating logic of the model. This information must be explicitly available prior to joining the organisation. Some effort could also be made to identify the competencies and traits that aid success in the virtual model. These can then be incorporated into the selection criteria of the organisation.

Regression—A tendency towards convention

Another manifestation of the dissonance created by the core category is a tendency towards a regression to more conventional modes of organisation. There are many examples of the organisation reverting to more traditional forms of organisation as a solution to the problems faced.

the reality of it is that in a moment of crisis or conflict or whatever they [meaning members of the organisation] attempt to pursue the benefits of the

corporate structure, and we have to say "no, no the responsibility rests with you" (Interview 1, Line 111).

This 'regression' is an important sub-concept of the core. It is an effect of the dissonance between maintaining independence and collaboration. The virtual paradigm involves organisational variables that are not present in the old paradigm. When faced with these factors, the easy solution is often that provided by the old paradigm. Such solutions are not always going to be satisfactory however. The existence of a new paradigm, by definition, means that some of the premises and assumptions of the old paradigm will be redundant and incommensurable with the conditions of the new paradigm. The tendency to revert to what is known is a natural result of experiencing a new paradigm. It is far more difficult to conceptualise problems in terms of the new paradigm (Kuhn, 1970). It is a matter of setting out clearly the operating logic of the model and using that as a basis for developing solutions to problems.

An example of this, is the following person's belief that the organisation would benefit from possessing physical premises.

In NC you effectively have 50 people with overheads. It is an illusion that they create, that they have no overheads. You know, you still have to pay your power, you have to buy your equipment, you can't be this naked thing standing on a street corner. And the old economy of scale comes into play you know when you get a group of people together, the more floor space that you take the cheaper it is, and you can make use of communal things. Things like LAN, faxes, email are a million times cheaper. I don't know, that is an interesting thing. It's a nice theory, warm and fuzzy. Kept everyone warm for a while. But at the end of the day you have to feed yourself, I don't know, I sort of see this social thing too, like when you have everyone in the office it is very social, everyone goes away very pumped up, or works on a project very pumped up, people come in, even if you had a place where people had to come every week for so many hours (Interview 6, Line 125).

As a consequence of this type of belief the organisation has become less virtual over time. There has been a perceived need for more structure.

NC has changed, and obviously its moved away from some of our original thoughts. In some ways it has become better than I anticipated, and in others its ran the same sort of risks that you do with any sort of private business. We have had to become a little more formal, a little more structured to achieve certain things. So at the moment it is a mix of the two worlds, its not totally virtual anymore (Interview 5. Line 38).

Another way in which this manifests is in the tendency of people to join the company, make contacts, build a client base and then form their own company. These companies work with NC, but typically are not virtual organisations themselves. They revert to the more traditional form of organisation.

One of the things that has taken the focus off NC, has been all these subsidiaries they have set up. They seem to have a knee jerk reaction, its almost orgasmic. Its almost got to the point where NC has almost disappeared, because under NC are all these subsidiaries that just happen to be real businesses! What I call real businesses, you know with structures, with a boss, staff, traditional model businesses. And they are thriving because they have objectives, they are objective driven. People with their asses on the line. Basically they are in line with why NC was set up in my mind in the first place, which was to make money to invest in ourselves (Interview 6. Line 522).

The tendency towards regression is partly born out of necessity. The requirements of New Zealand business legislation are such that an organisation needs a legally recognisable entity to be accountable for the organisation's actions. This has meant that the virtual model has had to be compromised to a degree, particularly where interfacing with other businesses.

Even though our intentions were originally virtual, and purely virtual, we have had to compromise. It still needs to meet the legal requirements of a company, because it is still a company. Legally you have to have directors, board meetings, minutes, and have to pass accounts payment. You have to do that for your shareholders. Any company structure has to do that, so you have to have directors (Interview 5, Line 692).

A problem with the model in its pure form is that it is hard sometimes for a client to pin point exactly who they are doing business with. It is necessary for legal reasons for the client to be able to relate to a legal entity in business matters. This becomes difficult if there is a whole team of people working on the job. This problem leads to the perception that the virtual model can't work in its pure form.

In my opinion the Virtual Organisation doesn't actually work. One that is totally amorphous, has no structure has no legal entity, no hierarchy of management will only ever exist as a collection of individuals. To actually change from being almost a buddy group, a mentoring group, a social group, into one that is actually business orientated, it had to take on some form of structure. The only legitimate structure that really exists in New Zealand at the moment is a company, especially where there is so many people. Imagine an organisation that where everyone is a partner and you had forty odd partners and every decision had to be made by the partners, you'd never get anything done. So I think that culturally, having a company means that a subset of the organisation is empowered as directors to make decisions on behalf of the group and NC needed to take that on (Interview 2, Line 856).

This excerpt initially identifies legality and legitimacy as being the justification for reverting towards the more traditional structure, but then also voices the opinion that the absence of a central authority of some kind will prevent cohesion and efficiency.

There is also a perception that it is necessary to compromise the virtual model in order to maintain high work standards. To provide structure in order to monitor work practices.

We have also had to compromise internally to ensure that we have internal disciplines that ensure that we are successful in whatever we do. We have had to create our own standards, you know you can't be totally virtual in terms of your standards. And, you know when I say NC doesn't have any employees, it doesn't, but our subsidiaries do. Basically that's its sales force (Interview 5, Line 695).

Credibility is another factor. There has been a perception by clients of the organisation that the VO is not a credible organisation.

We had to achieve credibility, and to be able to market with a 'shop window' (Interview 5, Line 46).

Within the group there is a reluctance, verging on embarrassment, to call the organisation a 'Virtual Organisation'. It is as though the concept is associated with something that is not taken seriously.

Formalising the informal

There is a strong perception within the organisation that the virtual mode of organisation is essentially not a new thing but rather it is the formalisation of informal networking practice that has been common in business for a long time. For instance the terms 'networking', the 'grapevine' and 'its not what you know but who you know' all refer to the important part that informal networks naturally play in business (Archol, 1997). Mutually beneficial relationships are formed and used to enhance the individual's personal capability. The VO can be seen as an attempt to enhance the efficacy of the informal 'network' by implementing certain procedures whereby the value and usefulness of networking is explicitly recognised and facilitated, and becomes financially rewarding.

'The network' already exists. It is the pattern of the way people work. Even if they work in companies, they still network. It is nothing new in itself, the difference is that when you say that "This is the culture I work in, and I don't have any culture other than that networking." That's what perhaps sets our organisation apart. NC took the loose network structure that exists where in a traditional company there is probably 10 or 15 other people that you ring up and work with and eat with and have coffee with and do all those sorts of things and every now and then you work on projects together irrespective of what sort of business you are in but you are actually sitting inside another organisation and the network exists to help you in that organisation. But what we did is said that there isn't another organisation, that network is the sole reason or method of doing our work (Interview 2, Line 296).

What's in it for people like me to have a group like this is having a group of people who I trust and can rely on, and whose skill sets I understand and can utilise when I need them. Without the hassles of having to set up a conventional high-overhead corporate structure (Interview 3, Line 119).

Effectively, NC has formalised the informal aspect of organisation and deformalised the formal aspects. Evidence of the formalisation of the informal can be the existence of procedural documents that outline how networking relationships are to be conducted within the organisation. The extent to which people are rewarded for their participation in a mutually beneficial arrangement is predefined.

Its not that these are things that you have to do, its just that we got tired of explaining what NC was, and why it was useful to join. Trouble is when you write something down on paper it becomes like a process (Interview 3, Line 46).

Self Management: A non-hierarchical 'peer based' structure

The lack of hierarchy is one of the distinguishing features of the virtual enterprise. It is a central premise of the operating logic of VO and is closely related to the core category. The important independence is reliant on autonomous action and therefore, by definition, there is little room for directive management. As a result of

the formalisation of the informal, Virtual alliances are guided by mutually agreed upon contractual arrangements (Miles & Snow, 1995). One of the central premises of NC is that it is 'peer based'. All members supposedly interact on an equal footing. On a given project the most suitable leader assumes management of the project but only for the life of that project, or his or her suitability for that specific project. It is recognised that there is a need for some sort of leadership and, within projects, this leadership emerges naturally.

People aren't created equal are they. I mean people aren't the same. So even if you have no officially recognised hierarchy, when you put six people together there is this process that takes place where the group almost involuntarily acknowledges that someone is actually leading the group.

Everyone in that group is a peer, there is no manager as such, there is no overall leader as such, and you actually watch the dynamics of the group change as you go into different phases of the project and someone else actually assumes the lead role and manages that process (Interview 2, Line 802).

There is also a perception however, that the lack of hierarchy is a problematic factor. The following excerpt highlights a belief that a hierarchy is the only way to achieve quality standards.

I think there are real problems that occur because of the peer structure, no one is in charge, so its almost anarchy really isn't it. There is no structure. Like even in the project teams, and I think the group have to learn this, you have to actually acknowledge that there is a project manager in the team, then that project manager elevates themselves to, or is elevated in that project only as someone who has got more clout than someone else. There has to be some hierarchy. How do you set standards within the group on, for example, a programming project where you have to have some standards about the way the project is produced. I don't mean that in terms of professional level of competency, but there has to be an approach that says this group will solve this technical issue in a certain way (Interview 2, Line 714).

The fact that this may contravene the operating logic of the virtual form is not acknowledged. Achieving standards of quality will obviously be difficult in the absence of an authoritative presence, *unless* an alternative approach is established. For instance standard of quality predetermined by the group and then monitored by the group or in pairs would be an example of a replacement of that role of the traditional hierarchy. The idea that the hierarchy is not needed is difficult for people to assimilate. The idea does not sit well with their experience to date. There is a persistent perception that there needs to be someone ‘in charge’.

I don't think it works. It should be able to, but the reality is that that's very dangerous, extremely dangerous. You can have a democratic process or a discussion, but someone ultimately has to say OK I've got all the facts about this, this is how we are going to do it (Interview 2, Line 734).

The idea that the group itself can be accountable in this way, is not generally accepted.

Hence the need for super peers, peers who are above the peers, only in the context in which that [a given project] happens. (Interview 2, Line 770).

This problem is exacerbated by the selection procedure and the consequent ‘primadonna’ effect, NC consists predominantly of people who do not operate well under the authority of others.

The directorship—Super Super Peers?

Due to the legal requirements of the New Zealand business environment there is a directorship in existence and it is headed by a ‘chairman’. However, the role of this group is not to manage or direct, it is to provide a legal entity, to provide

accountability, and to facilitate internally. The existence of a directorship compromises the tenet of self management and peer based relationships but is rationalised as being necessary for the sake of legality. (In actual fact the director is the founder of the organisation and has always been the director).

Well that's where we have had to compromise, to meet the legislative requirements and accounting requirements, and also the market requirements. The market actually requires it. They like to be able to go to somebody. So amongst the directors we have one person who we have made the managing director for a year, but next year we will make it someone else, we will roll it over. It is meaningless within NC, but from an outsider's point of view, "Hey I want to see the managing director" if there is a problem with a project, or the director responsible.... I don't think we are any less equal because of it in any way, and it doesn't give us any special status (Interview, Line 405).

This is a statement made by one of the directors. It implies that there is no extra status attached to the role of director and that the title is relatively meaningless within the organisation. This is however not born out by the perceptions of other members of the organisation. In theory the directorship is nominal, there only to provide some legality and some co-ordination. In practice it has become more than that. There is a strong perception among the group that the directorship has taken on more power than is specified by the model.

Initiative was taken away from me once again through an executive decision which of course NC doesn't have .. ha ha ha ... yeah joke!! There was going to be none of that, and there has been a lot of that. Its like "I don't have to communicate with you because I am a director", or "I can be selective in what I say to you because I am a director", the directors will be having a meeting to discuss this – "why can't you discuss it with me now?" – "Oh no that's for the directors' meeting" (Interview 6, Line 97).

These kinds of perceptions are indicative of a belief that the directorship has compromised the non-hierarchical premise of the model, and of a split between the directors and the rest of the organisation.

Independence Overload—The Marketing Problem

One of the procedural manifestations of the emphasis on autonomy has been that the organisation as a whole, takes little responsibility for marketing. Instead it has been assumed that on the basis of the individual member's supposedly proven capacity for self-sufficiency, they are able to market themselves. The idea is that in this way all members are marketed by all members i.e. the benefit of collaboration. This has not been a total success however. There have been many members who have spoken out against this requirement. It is seen as being a failing of the organisation that there is no formal marketing capacity. The common perception is that not everyone is a marketer and therefore cannot be expected to perform that function.

My point is that most people know what is involved in marketing, but they can't do it. Anyone can go and get a book on marketing, but there is a big difference between knowing what is involved, and actually being able to do it. This was rammed home, to the point that it destroyed a lot of confidence in people, that they should be marketing NC. The only problem was that they are not marketers! And they don't have a clue about marketing. They are doers. That fundamental concept has stood in the way of NC growing, we don't have a marketing arm, and as such we lose touch with the market. So as for the idea that everyone should market for everyone else, it doesn't work, nice concept keeps you warm for a while, but it doesn't work (Interview 6, Line 252).

There is a close relationship between the dissonance of the core category and this marketing problem. The expectation that everyone market the group is a manifestation of the intrinsic requirement for the independence of all entities, but

the assumption of collaboration and co-operation implies that people who are better suited to market should do so for the others.

I think that the model attempts to equate being independent with everyone being responsible for everything, which I think is a fundamental flaw. Because I can't be responsible for marketing in every respect of NC. I mean I can barely be responsible for marketing myself, so I think that what it needs as a refinement is perhaps something that looks at what people are good at, and then puts in a structure that utilises that. A formal marketing team that exists within the flat structure (Interview 10, Line 491).

There is a degree of confusion evident here. The expectation that the marketing be done by people as they market themselves in their capacity as an independent operator is at odds with the expectation that work should, by right of membership, be forthcoming from the VO. Unless it is actively marketed there will only be intermittent work available, and hence the requirement for each member to be self sufficient. It is possible that the members of the organisation can be divided into two distinct groups, their difference distinguished by the expectations each has of membership to the organisation. One group has joined the organisation because they see it as a way to supplement a deficiency in their capacity for independence, i.e. to make use of the marketing potential of the organisation. The other group has joined the organisation with the expectation that it will enable them to become more independent by increasing their professional capacity through providing the diverse skill sets of the group from which they can draw on when necessary.

It may be that those who are not able to market themselves adequately should not be members of the group.

Nothing [no work opportunities] came through NC. I mean I was doing a few things independently, but I was not really making any money. I wasn't marketing myself or being very successful on my own, I like to think it was because I wasn't trying hard enough ha ha ha. The NC model depends primarily on people being out there marketing themselves and I sort of felt that I needed more marketing support so I kept looking around for other jobs [meaning positions in 'normal organisations'] (Interview 11, Line 18).

This is an example of the wrongful expectation that the group *should* be *providing* more work. This is not consistent with the operating logic of the model.

One respondent, while talking about conflict within the group, identified the false expectation that work would be forthcoming, as one of the main sources of discontent.

Work is forthcoming, but it's just that it's not the sole thing, if that's what you were looking for, you might get rich out of joining NC and looking to NC to generate work, but there is no guarantee (Interview 7, Line 231).

Membership to the group provides no guarantee of work. This is what sets it aside from conventional organisations and is perhaps one of the defining features of the virtual model's operating logic. As soon as the VO tries to guarantee work to its members, those members become liabilities and thus the operating logic is again compromised.

Summary

The emergent theory reveals an interrelationship between the maintenance of autonomy, with its implicit reliance on the lack of formal hierarchy, and the enhancement of the individual's capacity through collaboration. Regression

towards traditional organisational structure and procedures is a reaction to the difficulty people experience coming to terms with the operating logic of the model, and also a necessary response to the legislative requirements of the business environment. A central part of that operating logic seems to be “Self Management”. The VO cannot function to its potential in the presence of formal hierarchical structures of authority. Such structures hinder the essential autonomy that gives the model its strength.

For those who are experiencing success within the model, NC is seen as providing a means to extend their individual creativity over and above their own capability. Rather than a substitute for inadequacy, it is an addition to competency. When perceived as a substitute for inadequacy, as a crutch, it does not work. The dynamic interaction between collaboration and independence that is inherent in the unique configuration of the VO, ultimately provides a vehicle for creativity. If however, the operating logic is compromised, for example by over formalisation, dependence, or non-collaboration, this potential is lost.

The essence of VO is that when utilised properly, the participant has the opportunity to transcend the restrictions of both the traditional form of organisation, and of the independent operation. Innovation and creativity flourish.

In the formation of NC this was implicitly recognised in the original configuration of the organisation, but over time it has been somewhat compromised. As a result, partly for legal necessity, partly for perceived credibility, and partly through the unpreparedness of some members for the virtual mode, it has been necessary to find

a balance between the new and old paradigms. However, imposing structure on the organisation has met resistance from some members.

The core category shows that the basic social process of the VO is *Achieving Symbiosis*. Those who cannot reconcile the opposing variables find the model unsatisfactory. Those who can, find it an excellent way to organise work. The organisation appears to have the organisational equivalent of a split personality. One group is pushing for more conventional structure, while the other is resisting this in favour of more autonomy and less structure.

The organisation uses the 'previous independent employment' criterion in order to ascertain whether or not a prospective member is capable of operating within the virtual environment. It is possible that this criterion has not been applied stringently enough. The problem that some members have had with the marketing issue is evidence that they do not understand, or are not ideally suited to, the operating logic of the VO. The prevalence of off-shoot organisations modeled on the more traditional style is further evidence that there are people within the group that are not suited to the virtual environment.

A prevalent perception seems to be that the virtual model is *potentially* an excellent way of organising work, but that NC is not complying with the operating logic of the model, and is therefore not achieving all that it could. The organisation is increasingly becoming more structured and hierarchical. A directorship headed by a chairman has evolved. Its original purpose was to provide a legal entity and to perform some administrative functions. It has evolved into more than that. There is

a strong perception amongst the group that it represents a compromise of the model and should be toned down. At the same time however, there is also a perception that the organisation would benefit from more structure. It is a question of compromise. The VO will inevitably experience difficulties and will evolve into a structure to suit. The nature of a VO can vary along the various dimensions of virtualness. There is a need to reconcile the dissonance between autonomy and collaboration in order to achieve a balanced symbiosis. It is important that the participants in the organisation fully understand the operating logic of the model and are capable of working within its parameters. Structural modifications that contravene the operating logic of the VO will inevitably create problems and loss of effectiveness.

As Achrol (1997) discusses, it is unclear how the culture of mutuality and solidarity so necessary to a system of decentralised power, where individuals and committees of members can be expected to act in the interest of the common good of the organisation, can develop in VO. In spite of the necessary emphasis on independence, it requires real commitment to the organisation. Commitment can be conceptualised as an attitudinal construct involving affective commitment, psychological attachment, identification, affiliation, and value congruence. According to Mowday, Porter & Steers (1982), commitment to an organisation may be defined as the strength of identification and involvement that an individual has with respect to his/her organisation. It is characterised by three factors: (1) a belief in, and acceptance of the organisation's goals and values, (2) a willingness to exert considerable effort on behalf of the organisation, (3) a strong desire to continue membership to the organisation. This type of commitment requires a 'partisan',

affective attachment to the goals and values of the organisation, to one's role in relation to the goals and values, and to the organisation for its own sake, apart from its purely instrumental worth. The dissonance of the core category is again relevant. Establishing commitment of this kind may be difficult to reconcile with the independence that must also be maintained in VO.

Within NC this type of commitment is not prevalent. There is considerable agreement across members concerning certain important values, such as individuality, individual responsibility, and independence, but it is possible that this 'culture' is present as a result of the selection procedure which inherently selects people who hold these values. This could be seen as a 'selected culture' as opposed to an 'evolved culture'.

There is a relatively strong perception of low cohesion within the NC This relates directly to the core category. One of the main causes of the lack of cohesion is that the highly individualistic nature of the members of the group, inevitably leads to a certain amount of conflict. The selection of this type of person into the group however, can be seen as a natural result of the basic operating logic of VO. The whole structure is inherently fragile, because everyone is independent consultants they don't have any real strong ties to the organisation.

NC does not evoke a strong sense of 'belonging' in its members. This could be problematic as it is a condition that is generally thought to be necessary for a strong culture to form (Pheysey, 1993; Sackmann, 1991; Schein, 1991). One reason for this, is the perception that a VO is not a 'real' organisation. That it doesn't have

much credibility in the eyes of others. There is a certain sense of embarrassment focused on membership to such an organisation. members tend to downplay the virtualness of NC. Again however, it can be related to the core concept. The commitment, and a sense of belonging, that is necessary for the collaborative aspect of VO, is again impeded by the independence of participants. As one respondent points out, the lack of commitment is in some ways a desirable part of the model. It facilitates the maintenance of independence by negating the potential for feelings of guilt or betrayal that can accompany the exercising of independence.

The issue of trust appears in the literature as an important issue for VO. For example, according to Snell (1994) trust will be one of the most important ingredients in the success of a VO. It has always been necessary in business, but in the VO trust will become an explicit requirement between all members. In an environment where teamwork and co-operation will take precedence over individual effort it will be vital that one trusts the others to be competent and genuine in their decision making and interactions. It will be essential to create a culture that promotes these ideals. The formation of trust will be moderated by the level of dissonance experienced in reconciling the two variables of symbiosis. The level of trust needed for truly cohesive collaboration may be impeded by the ever-present condition of independence.

Overall there was considerable agreement among the interviewees. The perception of independence and individuality as dominant values, and of the organisation as a way of getting the best of both worlds was common throughout. All agreed that the VO was a potentially powerful and fulfilling way of organising work. The main

difference was the extent to which different individuals felt that NC is reaching its potential. There was a varying degree of satisfaction with the functioning of the group. There was a recurring perception that the organisation is rewarding for a few of the members and not the rest. There is an element of resentment in this perception, based on an accompanying perception that the group has been hijacked somewhat by a certain group of core members. It is also a result perhaps, of the fact that the model itself demands certain traits or competencies of its participants. Those in possession of these characteristics will be more successful in the VO.

Chapter VII

QUANTITATIVE METHOD

The following chapter outlines the method and procedure used in the quantitative phases of the study. The rationale for the choice of instrument is given, the questionnaire is described, and the procedure is outlined.

Choice of instrument

In a correlational and factor analytical study of four popular questionnaire measures of organisational culture, Xenikou and Furnham (1996) demonstrated considerable convergent validity across cultural dimensions assessed by the different questionnaires. The instruments included in the study were the Organisational Beliefs Questionnaire (Sashkin, 1984), the Corporate Culture Survey (Glaser, 1983), the Organisational Culture Inventory (Cooke & Lafferty, 1983), and the Culture Gap Survey (Kilman & Saxton, 1983).

Of the four instruments assessed, the OCI (Cooke & Lafferty, 1983) proved to be the most reliable measure with internal reliability coefficients of 0.60 - 0.9. Its internal reliability measured by Cronbach's alpha coefficient is between .67 and .92. Validity is moderately high.

Cooke and Szumal (1993) also conducted a study of the reliability and validity of the OCI. With a cross-sectional sample of 859 respondents, they assessed internal consistency, inter-rater, and test-retest reliability, as well as construct and criterion related validity.

Internal consistency reliability

The instrument proved equally reliable for respondents who had been with their organisation for less than one year and those who had been with their organisation for more than one year. Average Cronbach alpha coefficients for the 12 scales are more or less identical average alpha = .84 (Cooke & Szumal, 1993).

Inter-rater reliability

Comparing three different forms of the OCI revealed that a significant amount of variance in responses is explained by organisational membership. The median unadjusted r estimates, range from .88 to .93, and adjusted for the skewness of the sample, they ranged from .60 to .85. So the true inter-rater agreement is somewhere between these values (Cooke & Szumal, 1993).

Test-retest reliability

Longitudinal assessment of organisations revealed considerable stability over time. Over the two year period in which the two organisations were assessed, only the one dimension (Achievement) changed significantly in the first organisation, ($z = -2.75$, $p < .01$), and two in the second—Humanistic ($z = 3.36$, $p < .001$) and Affiliative ($z = 1.90$, $p < .05$). These positive changes were consistent with management development programs conducted during the study period (Cooke & Szumal, 1993).

Construct validity

A factor analysis of the 12 dimensions assessed by the OCI revealed a three-factor solution which together account for approximately 65% of the variance. Overall the factor structure and pattern of factor loading is consistent with the conceptual framework that underlies the instrument (Cooke & Szumal, 1993).

Criterion-related validity

On the basis of zero-order correlations estimating the direction and degree of association between scale responses and outcome measures, i.e., job satisfaction and role clarity, as reported by the respondents and their superiors, the predictive validity of the OCI was assessed. All the Constructive styles showed significant positive correlations with measures of satisfaction, and negative correlations with measures of role stress. This provides strong evidence of the criterion validity of the instrument (Cooke & Szumal, 1993).

In general, the results show that the OCI is a reliable and valid instrument for the measurement of organisational norms and expectations. See Cooke and Szumal (1993) for a more detailed presentation of the results.

On the basis of these studies the OCI was chosen for the present research. The rationale for its use is that it will provide an interesting comparison with the qualitative account, and also provide additional information concerning the strength of the organisational culture.

The OCI

The Organisational Culture Inventory (Appendix D) measures 12 sets of normative beliefs or shared behavioural expectations. These 12 “cultural styles” can be categorised into three general types of cultures, Constructive, Passive/Defensive, and Aggressive/Defensive. Some of the styles are positive and supportive of constructive interpersonal relationships, effective problem solving, and personal growth, while others are dysfunctional and can lead to unnecessary conflict and dissatisfaction. All the styles are closely associated with organisational structural variables, reward systems, and managerial styles and philosophies. The focus is on the behavioural norms and expectations associated with the shared beliefs and values held by members of the organisation. According to Cooke and Rousseau, (1988) these aspects of culture have the greatest impact on the actual functioning of the organisation.

In administering the OCI respondents are asked to review a series of statements that describe some of the thinking and behavioural styles that members of an organisation may be expected to adopt in order to operate within their organisation. The questionnaire asks the respondent to ‘think about what it takes for you and people like yourself (e.g. co-workers, people in similar positions) to “fit in” and meet expectations in your organisation’. There a total of 120 ‘statements’ divided equally among the 12 dimensions of culture measured by the instrument. Each statement describes a behaviour or ‘personal style’ that might be expected or implicitly required within the organisation. For example: Indicate the extent to which people are expected to: *compete rather than co-operate; be liked by everyone, avoid confrontations, fit into the ‘mould’, and help others to grow and*

develop. The participant then responds to each statement according to a five point

Likert scale as follows:

1. Not at all
2. To a slight extent
3. To a moderate extent
4. To a great extent
5. To a very great extent

The inventory provides a 'point in time picture' of the organisation. It focuses on how the members feel that they should interact with one another in their work and in meeting the expectations of other members of the organisation.

Normative data based on sample comprised of 3 939 respondents to the OCI from a wide range of organisations in New Zealand and Australia is available. The twelve cultural styles measured by the OCI are plotted onto a 'Circumplex' graph (see Figure 1) which transforms them into percentile scores relative to the normative database.

The shape of the resulting profile displays the extent to which the culture emphasizes concern for people versus tasks, and promotes behaviours leading to the fulfillment of satisfaction needs versus security needs. Cultures in which Constructive styles are prevalent permits members to fulfil higher order satisfaction needs, while those in which meeting Security needs prevails promote self protective behaviour. Cultures in which the concern for people dominates, promote interpersonal relations, while those concerned more with Tasks, tend to be concerned more with work related behaviour. A summary of the styles follows.

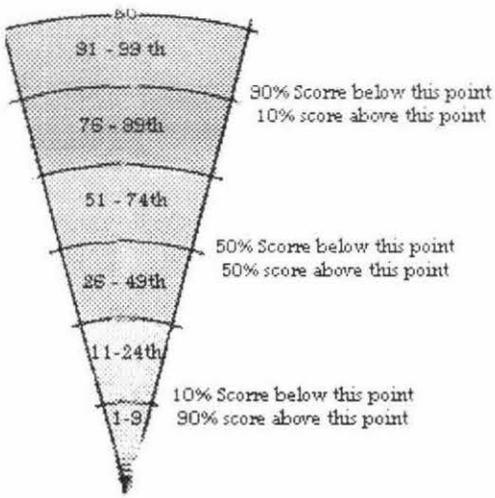
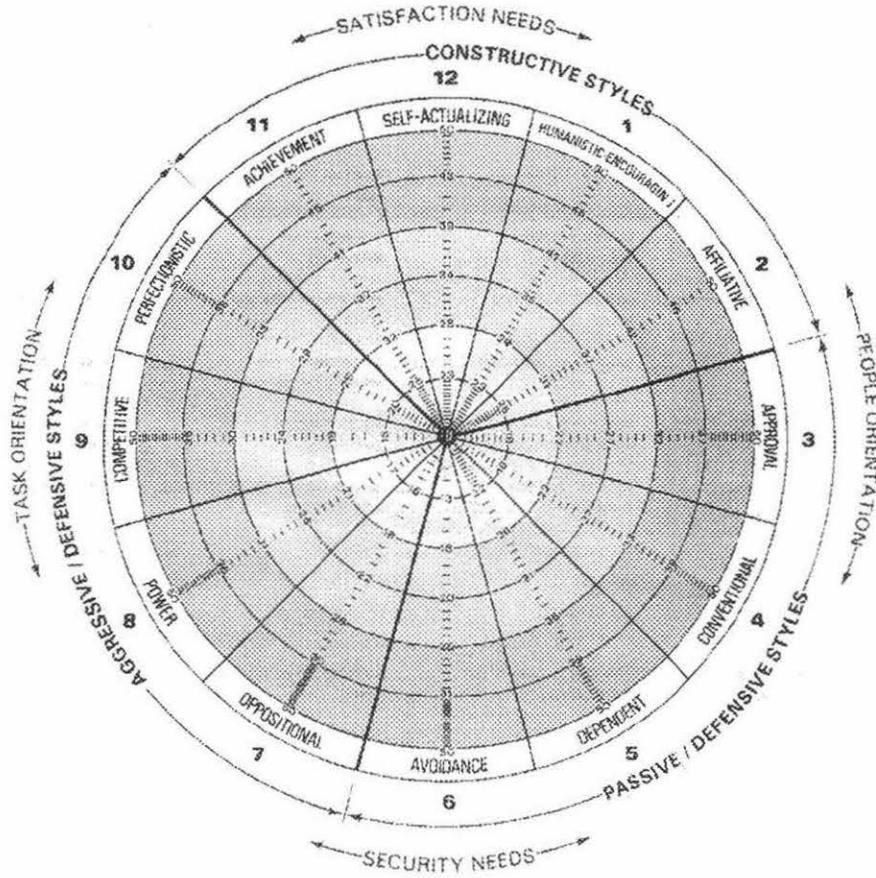


Figure 1. The OCI Circumplex and percentile key

The 'Cultural Styles' of the OCI

The following is taken from the Human Synergetics Leadership Manual supporting the OCI. Its basis is the data obtained from the extensive use of the OCI in research and practical use. The descriptions are based on correlational analysis. These analyses consistently show that the outcomes generally valued by organisations such as satisfaction, role clarity and motivation, are positively related to the satisfaction styles and negatively related to the security styles (Cooke & Hartman, 1997).

Constructive Styles

Constructive cultures encourage the fulfillment of higher order needs, and tend to focus more on people and relationships.

Achievement

An achievement culture characterises organisations that do things well and value members who set and accomplish their own goals. Members of these organisations set challenging but realistic goals, establish plans to reach these goals, and pursue them with enthusiasm. Achievement organisations are effective; problems are solved appropriately, clients and customers are served well, and the orientation of members (as well as the organisation) is healthy.

Self Actualising

A self actualising culture characterises organisations that value creativity, quality over quantity, and both task accomplishment and individual growth. Members of these organisations are encouraged to gain enjoyment from their work, develop

themselves, and take on new and interesting activities. While self actualising organisations can be somewhat difficult to understand and control they tend to be innovative, offer high quality products and / or services, and attract and develop outstanding employees.

Humanistic-Encouraging

Humanistic-Encouraging culture characterises organisations that are managed in a participative and person centered way. Members are expected to be supportive, constructive, and open to influence in dealings with one another. A humanistic culture leads to effective organisational performance by providing for the growth and active involvement of members who, in turn, report high satisfaction with and commitment to the organisation.

Affiliative

An affiliative culture characterises organisations that place a high priority on constructive interpersonal relationships. Members are expected to be friendly, open, and sensitive to the satisfaction of their work group. An affiliative culture can enhance organisational performance by promoting open communication, good co-operation, and the effective co-ordination of activities. Members are loyal to their work groups and they feel that they 'fit in' comfortably.

Passive defensive styles (People/Security Cultures)

Passive defensive cultures encourage the fulfillment of security needs and tend to emphasise a focus on tasks.

Approval

An approval describes organisations in which conflicts are avoided and interpersonal relationships are pleasant—at least superficially. Members feel that they must agree with, gain approval, of, and be liked by others. Though possibly benign, this type of work environment can limit organisational effectiveness by minimising constructive ‘differing’ and the free expression of ideas and opinions.

Conventional

A conventional culture is descriptive of organisations that are conservative, traditional and bureaucratically controlled. Members are expected to conform, follow the rules, and make a good impression. Too conventional a culture can interfere with effectiveness by suppressing innovation and preventing the organisation from adapting to changes in its environment.

Dependent

A dependent culture is descriptive of organisations that are hierarchically controlled and non-participative. Centralised decision making in such organisations leads members to do only what they are told and clear decisions with superiors. Poor performance results from the lack of individual initiative, spontaneity, flexibility, and timely decision making.

Avoidance

An avoidance culture characterises organisations that fail to reward success but nevertheless punish mistakes. This negative reward system leads members to shift responsibility to others and avoid the possibility of being blamed for mistakes. The

survival of this type of organisation is in question since members are unwilling to make decisions, take action, or accept risks.

Aggressive/Defensive Styles (Task/Security Cultures)

Aggressive defensive cultures also encourage the fulfillment of security needs, but tend to emphasise a focus on people.

Oppositional

An oppositional culture describes organisations in which confrontation prevails and negativism is rewarded. Members gain status and influence by being critical and are thus reinforced to oppose the ideas of others and to make safe but ineffectual decisions. While some questioning is functional, a highly oppositional culture can lead to unnecessary conflict, poor group problem solving, and watered down solutions to problems.

Power

A power culture is descriptive of non-participative organisations structured on the basis of the authority inherent in members' positions. Members believe that they will be rewarded for taking charge and controlling subordinates (and being responsive to the demands of superiors). Power oriented organisations are less effective than their members might think; subordinates resist this type of control, hold back information, and reduce their contribution to the minimal accepted level.

Competitive

A competitive culture is one in which winning is valued and members are rewarded for out-performing each other. People in such organisations operate in a 'win-lose'

framework and believe that they must work against (rather than with) their peers to be noticed. An overly competitive culture can inhibit effectiveness by reducing co-operation and promoting unrealistic standards of performance (either too high or too low).

Perfectionist

A perfectionist culture characterises organisations in which perfectionism, persistence and hard work are valued. Members feel that they must avoid all mistakes, keep track of everything, and work long hours to attain narrowly defined objectives. While some account of its orientation might be useful, too much emphasis on perfectionism can lead members to lose sight of their goal, get lost in details and develop symptoms of strain.

The relationship between culture and organisational outcomes

Culture is closely related to several important organisational outcomes such as satisfaction/commitment, person organisation fit, and role clarity, (Cooke & Burack, 1995; Cooke, 1997). The OCI includes seven ‘summary perception’ questions designed to assess these dimensions. They are responded to using the same 5 point Likert scale.

The Summary Perception Questions

To what extent...

Role Clarity

1. Do you clearly know what is expected of you as a member of the organisation?
2. Do you receive inconsistent messages regarding what is expected?

Person Organisation Fit

3. Do you feel that you conformably fit in as a member of this organisation?
4. Does your job require you to think and behave differently than would otherwise be the case?

Job satisfaction / Commitment

5. Are you satisfied being a member of this organisation?
6. Do you expect to be with this organisation two years from now?
7. Would you recommend this organisation as a good place to work?

Normative Data Associated with the OCI

Human Synergistics have compiled a normative data-base from the use of the OCI in 120 New Zealand and Australian organisations between 1994 and 1997. The overall result shows that organisations in both New Zealand and Australia are not reinforcing Constructive cultures. Passive Defensive and Aggressive Defensive cultures predominate. Typical New Zealand and Australian organisations tend to reinforce conventionality, compliance, avoidance of blame, dependence and the need for approval (Passive Defensive behaviours) and covert opposition, competition, power politics and the appearance of competence (Aggressive

Defensive behaviours). There are some differences between different professions but the basic pattern is present throughout (Cooke, 1997).

Correlational analysis of the normative data has also revealed strong relationships between the summary perception questions and the dimensions of culture measured by the OCI (Cooke, 1997). Table 3 shows the relevant correlation matrix.

Table 3. Correlations between perception questions and cultural dimensions in the normative sample (Cooke, 1997)

Dimensions	Summary Perception Questions						
	1	2	3	4	5	6	7
1. Humanistic	.44**	-.36**	.47**	-.19**	.50**	.35**	.52**
2. Affiliative	.39**	-.30**	.44**	-.19**	.46**	.30**	.47**
3. Approval	-.20**	.39**	-.23**	.30**	-.23**	-.12**	-.23**
4. Conventional	-.23**	.43**	-.32**	.30**	-.33**	-.17**	-.39**
5. Dependent	-.25**	.42**	-.29**	.27**	-.33**	-.18**	-.39**
6. Avoidance	-.36**	.48**	-.43**	.38**	-.41**	-.27**	-.40**
7. Oppositional	-.14**	.26**	-.19**	.32**	.17**	-.12**	-.11**
8. Power	-.28**	.45**	-.36**	.35**	-.36**	-.19**	-.36**
9. Competitive	-.15**	.37**	-.23**	.30**	-.20**	-.06*	-.20**
10. Perfectionist	-.10**	.35**	-.16**	.29**	-.17**	-.05*	-.19**
11. Achievement	.39**	.28**	.40**	-.17**	.43**	.32**	.45**
12. Self-Actualising	.42**	.30**	.41**	-.15**	.49**	.35**	.53**

n = 2286 workgroups

** = $p < .01$ * = $p < .05$

In general, job satisfaction, commitment and role clarity seem positively related to the Constructive styles and negatively related to the Passive and Aggressive styles.

Procedure

The questionnaire was posted to all members of the participating organisation identified by the organisation's membership list as of September 1997. With the

questionnaire was included an information sheet (Appendix E), a consent form (Appendix B), and a stamped return envelope.

Those who did not initially respond after three weeks were contacted via email (Appendix F), first by the researcher, and then by a director of the organisation, and encouraged to return their questionnaire. Following this, in an attempt to obtain more responses, the questionnaire was transposed into HTML format and published on the Internet. Another email message (Appendix G) was then sent to all remaining non-respondents inviting them to complete the questionnaire on the Internet.

Finally, in order to estimate the nature of any non-response bias, an email message (Appendix H) was sent to those who still did not return the questionnaire, asking them their reasons for not responding. Generalisation to the rest of the population, i.e., NC, and to other populations, i.e., other VO's, is reliant on obtaining a representative sample. If those who do not respond differ from those who do in a systematic way the sample may be biased and the validity of generalisation becomes dubious (Wild & Seber, 1993). Random sampling was not attempted because everyone in the organisation was targeted.

Chapter VIII

QUANTITATIVE RESULTS

This chapter presents the results of the quantitative phase of the study. Results include a cultural profile of NC. This is compared to the typical profile of a high performance organisation, and to the other management consultancy organisations in the normative sample. The results of the summary perception questions are then presented with comparisons to normative data. The strength of the culture is presented in terms of variance around the means. The cultural profile of those members of NC that report high job satisfaction is compared to the profile of those who don't. It is suggested that the exclusion of dissatisfied members from the generation of a cultural profile may render a more meaningful description of that culture. Finally, a summary description of NC's culture is presented.

The OCI was used to enrich and corroborate the findings of the qualitative phase. Seventeen members of the organisation completed the initial questionnaire and an additional six, the HTML version. The final response rate was approximately 50 %. The target organisation (n = approximately 40 members) and consequent sample was relatively small (n = 23) so in-depth statistical analysis was not feasible. For instance, with a large sample could would have allowed multiple regression analyses and analysis of variance between different sub-groups of the organisation. Consequently, the following results are primarily descriptive in nature.

The non-response bias

In reply to the message seeking explanation for non-response to the questionnaire, the majority indicated that they were no longer associated with the organisation and therefore they did not feel that it would be appropriate to fill out the questionnaire. This would indicate that the sample was not biased other than being comprised primarily of those members who feel some degree of commitment to the organisation. The nature of the VO means that membership fluctuates and changes continuously and also that there is a wide variance in the extent to which people feel that they are a 'member' of the organisation. On the whole it appears that the sample represents the whole organisation well enough to make tentative generalizations. Since the focus of this study is on exploration and the generation of hypotheses rather than the rigorous testing of hypotheses, this level of representation was judged to be sufficient.

The OCI Profile of NC

The responses to the 120 questionnaire items assessing each of the 12 dimensions were averaged to obtain one score per dimension. These were then averaged across the whole sample to obtain the organisation's aggregate score for every dimension. As shown in Figure 2, these scores represent a culture dominated by the constructive styles: Achievement, Self Actualising, Humanistic/Encouraging, and Affiliative.

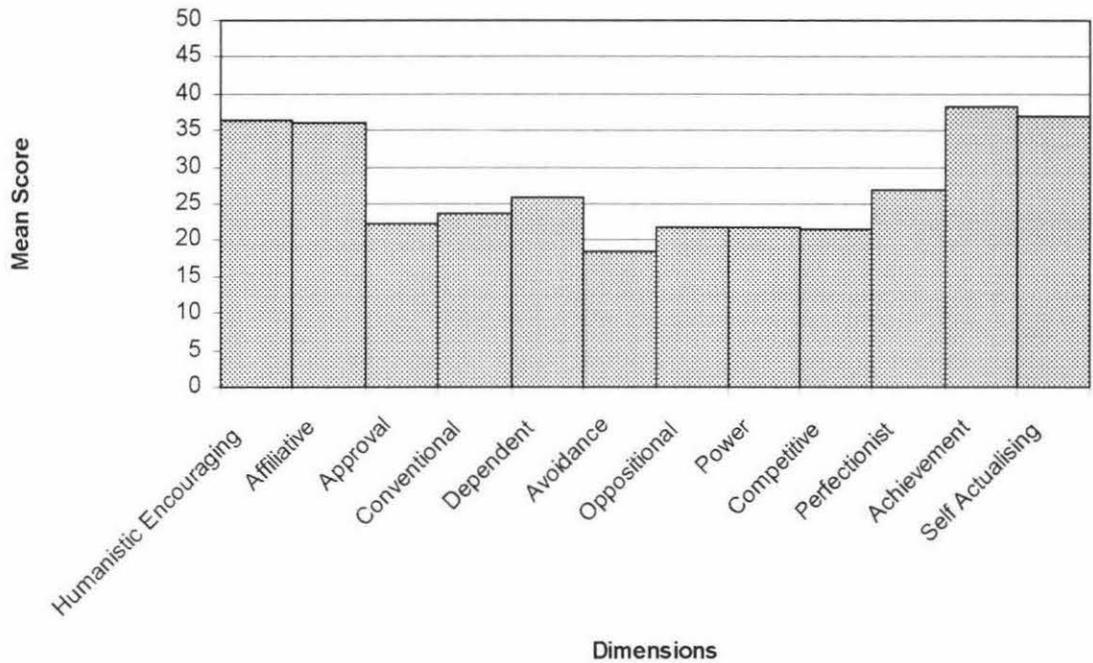


Figure 2. Aggregate means for each cultural dimension measured by the OCI in NC (n = 23)

The scale on the Y axis starts at 10 because for each of the 12 dimensions of culture measured, there are ten questions. Therefore it is impossible to score lower than 10 on a dimension.

Determining the significance of these scores is achieved by comparing them to the normative data associated with the OCI. Figure 3 shows the data converted into percentile scores, relative to the normative data. Each dimension is plotted on scale of its own. The effect of this is to change the weighting of the dimensions relative to each other.

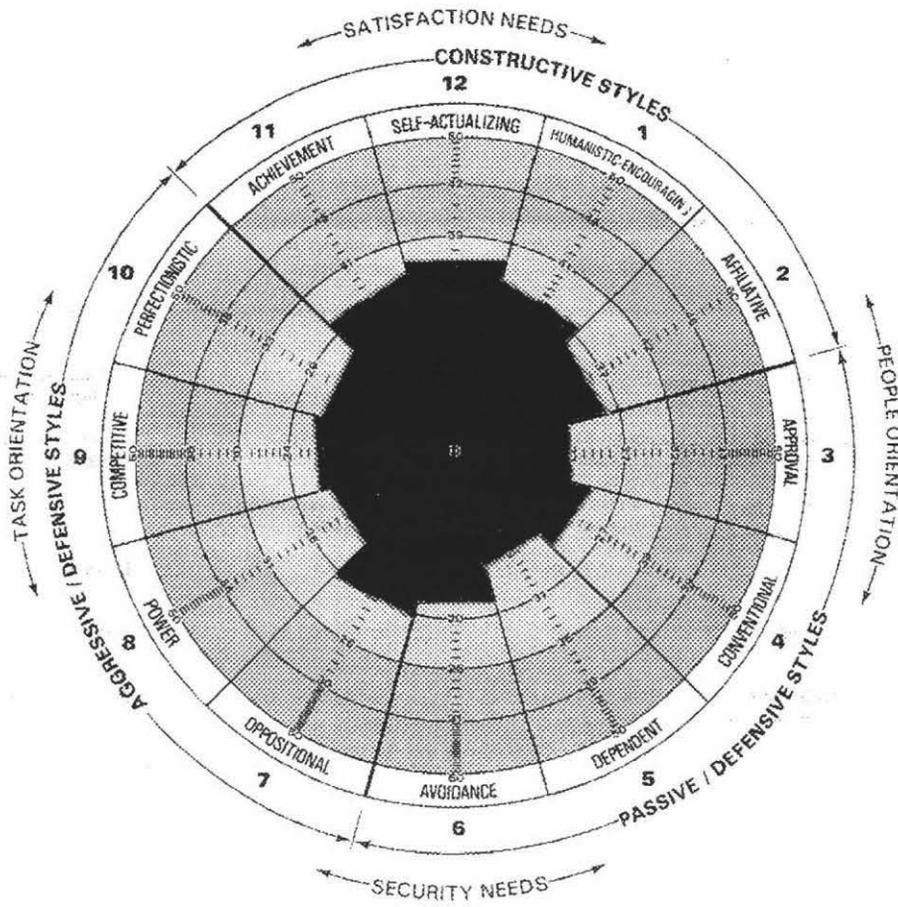


Figure 3. Culture profile of NC (n = 22)

In comparison to the norm, the Circumplex profile indicates a culture that is still dominated by the constructive styles, but now most strongly by the Self Actualising, and backed up with Achievement and Humanistic Encouraging. In the Passive/Defensive styles the Dependence and Approval styles are relatively low, but the Avoidance style is quite high. It is comparable to the Affiliative norm in the constructive styles. Of the Aggressive/Defensive styles the Oppositional style is dominant, and Power is low. All dimensions appear within the normal range except the Dependent style, which is slightly below the 30th percentile. Overall, the profile indicates a very constructive culture. Organisations that are high performers over

the long term, typically have very Constructive oriented cultures (Cooke & Burack, 1995).

Compared to culture profiles of high performing organisations in New Zealand and Australia, the culture profile of NC indicates a culture in the top 10% (M. Gauley, Human Synergistics Consultant, personal communication, January 1998). Figure 4 shows an example of the OCI profile of a typical high performance organisation considered to be an international leader in their field (Cooke, 1997).

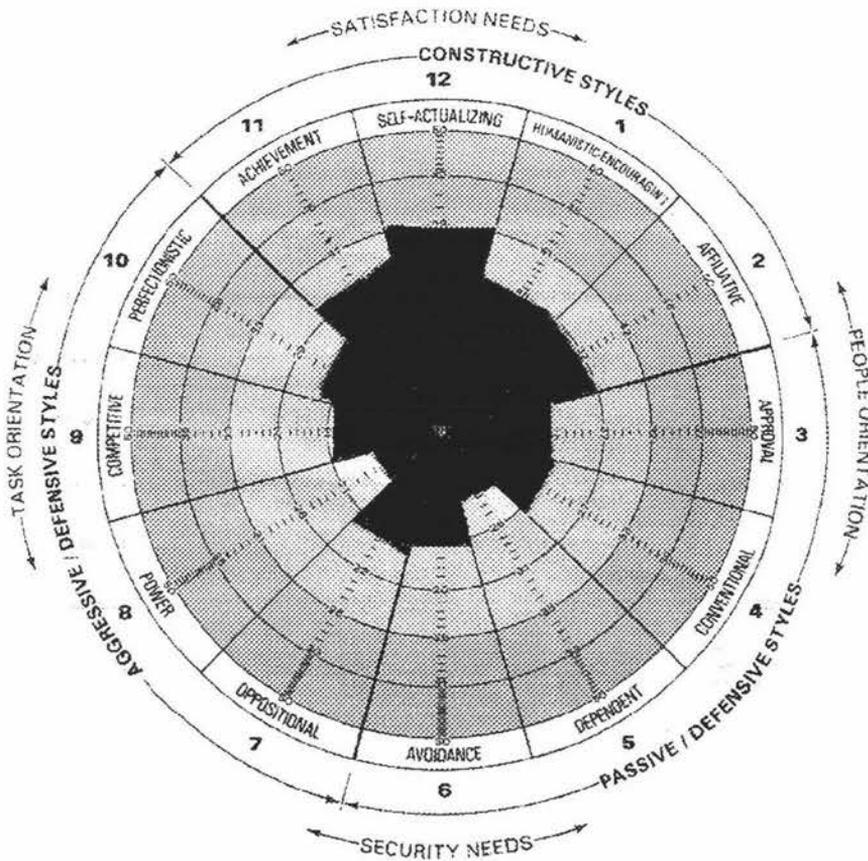


Figure 4. Culture profile of a typical high performance organisation

This profile is reasonably similar to that of NC. It is dominated by the self-actualising norm, and is backed up by achievement and humanistic/encouraging.

Dependence and power are very low. The most noticeable difference is that the power and dependence norms are considerably lower on the high-performance profile than in the NC profile.

Another interesting comparison to make, is between NC and the other management consultancy organisations in the normative sample. Figure 5 shows the culture profile obtained from fifty-two people working in the three different management consultancies included in the normative sample.

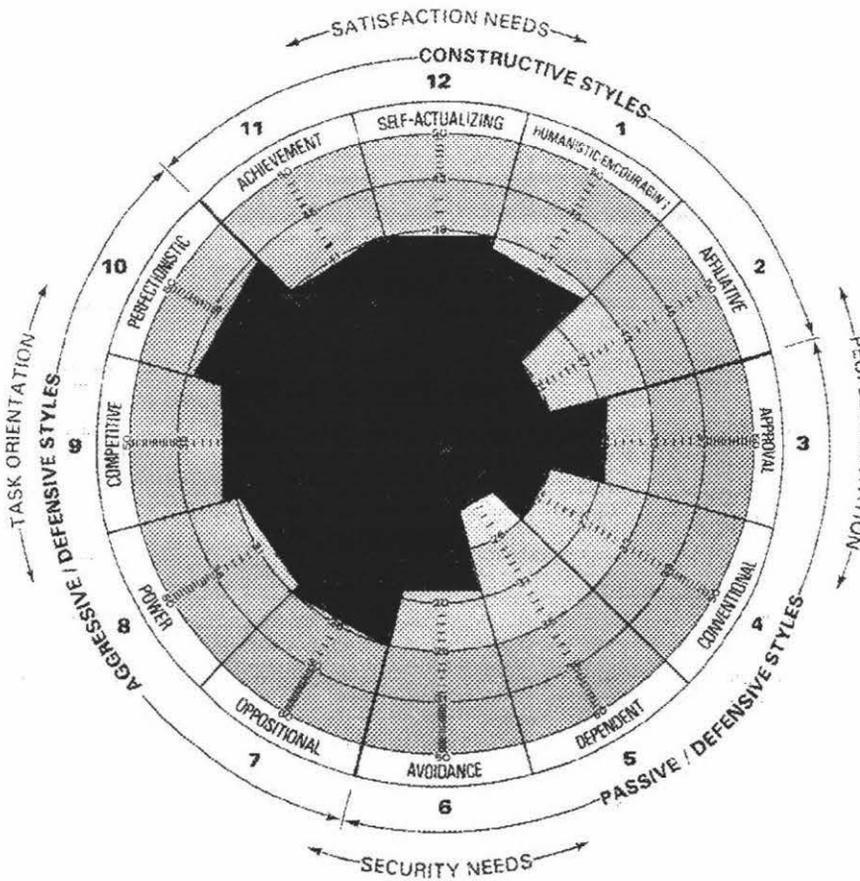


Figure 5. Culture profile of typical management consultancy organisations

The normative management consultancy profile is similar to that of NC in the constructive, and the passive/defensive styles, but the aggressive/defensive styles

are quite different. This is a culture that encourages a strong emphasis on appearances, control, and the perception of being on top (Cooke, 1997, p. 39).

Summary perception question results

Of the 23 respondents, 15 answered the summary questions. Based on the correlation between the cultural dimensions and the summary perception questions in the normative data (see Table 3), we would expect that, with the dominance of constructive styles in NC's culture, there would be a high level of role clarity, person/organisation fit, and satisfaction/commitment reported by members of NC. Figures 6 through 8 show the results of the summary perception questions, and where possible, the corresponding norms. For each dimension the relevant items were combined into one graph. See Appendix I for individual breakdowns of each summary perception question. Confidence intervals (at the 95% level) were constructed in order to ascertain the generalisability of the findings, and also to aid comparison to the normative data⁴. They are indicated by the error-bars on the bar charts.

Role Clarity

The level of role clarity reported in NC was assessed by summary perception questions: (1) To what extent do you know what is expected of you as a member of this organisation? (2) To what extent do you receive inconsistent messages regarding what is expected?

⁴ Due to the large size of the normative sample, the corresponding confidence intervals are very narrow and consequently, they are barely visible on some graphs.

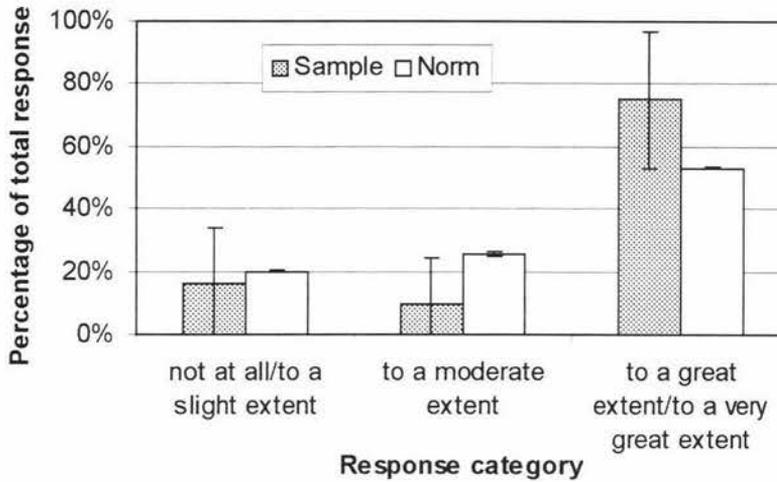


Figure 6. Percentage of total responses as a function of response category for summary perception questions one and two combined. 95% confidence intervals are indicated by the error bars.

Figure 6 shows the results of these questions combined. The confidence intervals show that there is a clear difference between the proportion of NC members who report a high level of role clarity, and those who do not. Comparison to the norm however is less conclusive. The confidence intervals do overlap so at the 95% level of confidence there is no difference between the NC sample and the norm. Although, in the affirmative response category the confidence intervals overlap only slightly. It is therefore like that a tendency exists for the NC sample to be experience more role clarity than the norm.

Person / Organisation fit

Person / Organisation fit was assessed by summary perception questions (3) Do you feel that you comfortably fit in as a member of this organisation? and (4) Does your job require you to think and behave differently than would otherwise be the case?

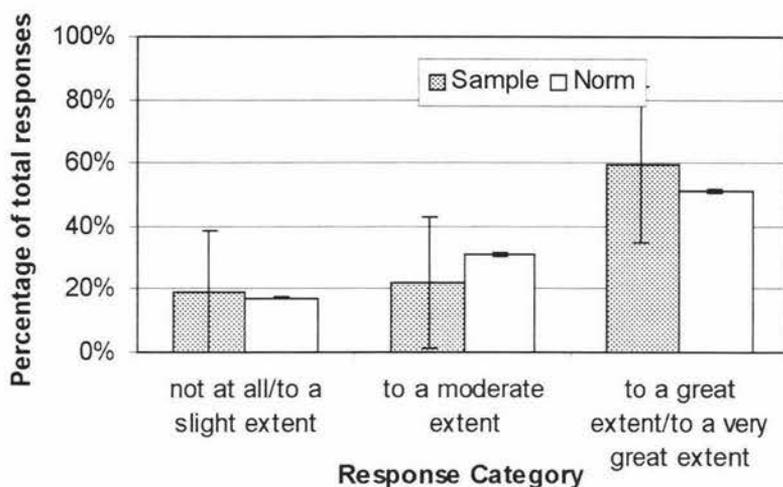


Figure 7. Percentage of total responses as a function of response category for person / organisation fit as measured by summary perception questions three and four. 95% confidence intervals are indicated by the error bars.

Figure 7 shows the results of these question combined. The confidence intervals show that, at the 95% level of confidence there is no difference between the proportion of NC members who report good person / organisation fit and those who do not. Comparison to the norm reveals that the pattern is very similar to that found in other organisations.

Job Satisfaction

The level of job satisfaction reported in NC was assessed by summary perception questions: (5) Are you satisfied being a member of this organisation? (6) Do you expect to be with this organisation two years from now? (7) Would you recommend this organisation to someone like yourself as a good place to work? The individual breakdowns of these questions (Appendix I) show that the results of question six differs from questions 5 and 7. As a measure of job satisfaction, question 6 reveals

a lower level than the other two questions. In terms of construct validity, this question is dubious. The fact that people intend to leave may be attributable to many other reasons other than low satisfaction. For instance, leaving the country, changing careers, or having children may all be reasons for intending to leave the organisation that would confound the measure of job satisfaction. For this reason it has been omitted from the job satisfaction assessment. It is however included in appendix I because, in its own right, it reveals an interesting statistic.

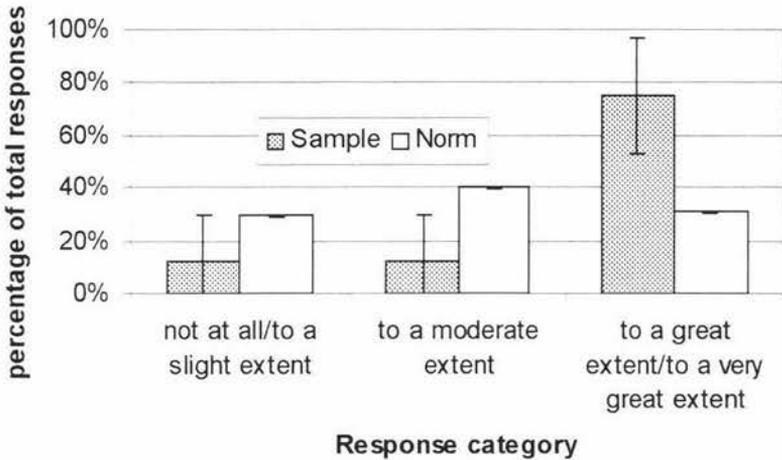


Figure 8. Percentage of total responses as a function of response category for job satisfaction as measured by summary perception questions five and seven. 95% confidence intervals are indicated by the error bars.

Figure 8 shows the level of job satisfaction reported by members of NC as measured by summary perception questions 5 and 7. The confidence intervals show that there is a clear difference between the proportion of people who report a high level of job satisfaction and those who do not. Comparison to the norm also indicates that the proportion of NC members who are satisfied with their organisation is greater than is the norm.

Table 4 summarizes the means and standard deviations for each summary perception question.

Table 4. Means and Standard Deviations for Summary Questions

Question	Role clarity		Person organisation fit		Satisfaction		
	1	2	3	4	5	6	7
Mean	4.1	2.4	3.4	2.3	3.7	3.5	4.0
SD	0.85	1.41	1.20	1.08	1.25	1.46	1.32

Synopsis

Overall, the results of the summary perception questions convey a positive image of NC. Summary perception questions one and two assess the level of role clarity experienced by the members of the organisation. The results show that the majority of NC members are very clear about what is expected of them as a members of the organisation, and also that the way in which this is expectation is conveyed within the organisation is effective. Although better than the norm, the degree of role clarity in NC does leave some room for improvement.

The degree of person/organisation fit present in NC is less prevalent. The results indicate that a considerable proportion of the members of NC do not feel that they “fit in” very well in the organisation. This perception appears to be very similar to the norm.

The third dimension assessed by the summary perception questions is satisfaction with the organisation. The first question reveals a very high proportion of the members of NC to be satisfied with the organisation. Relative to the norm this proportion is also very high. The second question asks whether the members intend to leave the organisation in the next two years. In terms of job satisfaction this question is not as conclusive. There is however the possibility of a confounding variable present in this measure. Firstly, the nature of the VO is such that its members may not see it as a permanent commitment, and secondly there may be many reasons for leaving an organisation other than dissatisfaction. For these reasons this measure is probably less valid than the others. The third satisfaction question asks whether the members would recommend the organisation to people like themselves. The results of this question, although not compared to a normative sample, are very positive. It is therefore possible to say with great certainty that the level of job satisfaction in NC is very high.

In general, the data show that within NC role confusion is low, members feel that they fit in to a moderate degree, and satisfaction and commitment are relatively high. In other words, members of NC have a fairly good idea what it is that they are supposed to be doing, that they enjoy doing it, but that it still seems to be an unusual working arrangement.

Consistency—The strength of a culture

If cultural perceptions are strongly shared across the organisation, (i.e., if there is a similarity between all individuals' perceptions of the culture), we can say that the

organisation's culture is strong or pervasive (Pheysey, 1993). The standard deviation of the aggregate scores can be taken as a measure of consistency across the group. A low standard deviation would correspond to high levels of agreement and thus a strong culture. In the NC sample all the standard deviations are over 5.5 except the Oppositional dimension which is 4.76. Given the range of 40, this is taken to indicate a relatively low level of agreement over the group, and thus a relatively weak culture. Human Synergetics do not provide comparative norms for this type of data however, so it is difficult to assess the relative size of the standard deviations.

One explanation for low consistency in an otherwise constructive culture, may be that there is a confounding variable in the measurement. The degree of satisfaction with the organisation may be one such variable. The possibility that the inclusion of dissatisfied members in the data-set is acting as a confounding variable can be tested by removing the corresponding data from the profile. If there is a considerable difference between the two group's perception of the organisation's culture, the standard deviations should decrease.

With the data corresponding to respondents measuring low on the satisfaction measure removed (low satisfaction is defined as either 'not at all', 'to a slight extent', or 'to a moderate extent' responses to the summary perception question 5), the standard deviations decrease. Table 5 shows the standard deviations for the two groups.

Table 5. Standard deviations for total group and satisfied group

Dimension	SD Total *	SD Satisfied **
Humanistic Encouraging	8.29	4.73
Affiliative	8.33	6.63
Approval	6.64	4.59
Conventional	7.22	4.78
Dependent	6.75	5.32
Avoidance	6.27	3.90
Oppositional	4.76	4.63
Power	7.18	5.66
Competitive	6.63	6.50
Perfectionist	6.77	5.32
Achievement	9.21	4.34
Self Actualising	7.35	4.69

* n = 23, ** n = 11

95% confidence intervals constructed around the differences between these standard deviations (expressed as percentages of the range) reveal no statistically significant differences between the standard deviations of the two groups. However, they all decrease. A binomial calculation shows that the probability of all 12 dimensions changing in the same direction is less than 0.02%. Given that the sample is also reduced, the significance of this change is increased. It would be expected that reducing the sample size would result in an increase in the size of the corresponding standard deviations. The apparent stability of the standard deviation could be a function of a small sample size rather than evidence of non-significant differences between satisfied and non-satisfied groups.

In addition, confidence intervals constructed around the differences between the actual scores on each of the 12 dimensions for the satisfied and dissatisfied groups reveal significant differences between the groups on the Humanistic/Encouraging (95% CI = 16.79 > μ > 5.21), Achievement (95% CI = 16.74 > μ > 0.17), Self -

actualising (95% CI = 10.24 > μ > 2.02) and Avoidance (95% CI = -4.03 > μ > -5.13) dimensions. This indicates that there is systematic variation present. Perceptions of satisfaction co-vary with perceptions of culture and therefore represent a moderating variable. Once again, in all dimensions the change is in the same direction. Scores on the constructive styles decrease, and the defensive styles increase, so the overall change is towards a more constructive culture. By the same token, the binomial portability of this occurring by chance is 0.02%.

So, given that there is a high correlation ($r = 0.90$) between those who are dissatisfied and those who intend to leave, removing the dissatisfied members' data from the culture profile may reveal a more meaningful assessment of the culture of NC. Effectively, the dissatisfied group represents a sub-culture.

Figure 9 and 10 compare the culture profiles of those who indicated a high level of job satisfaction with those who do not.

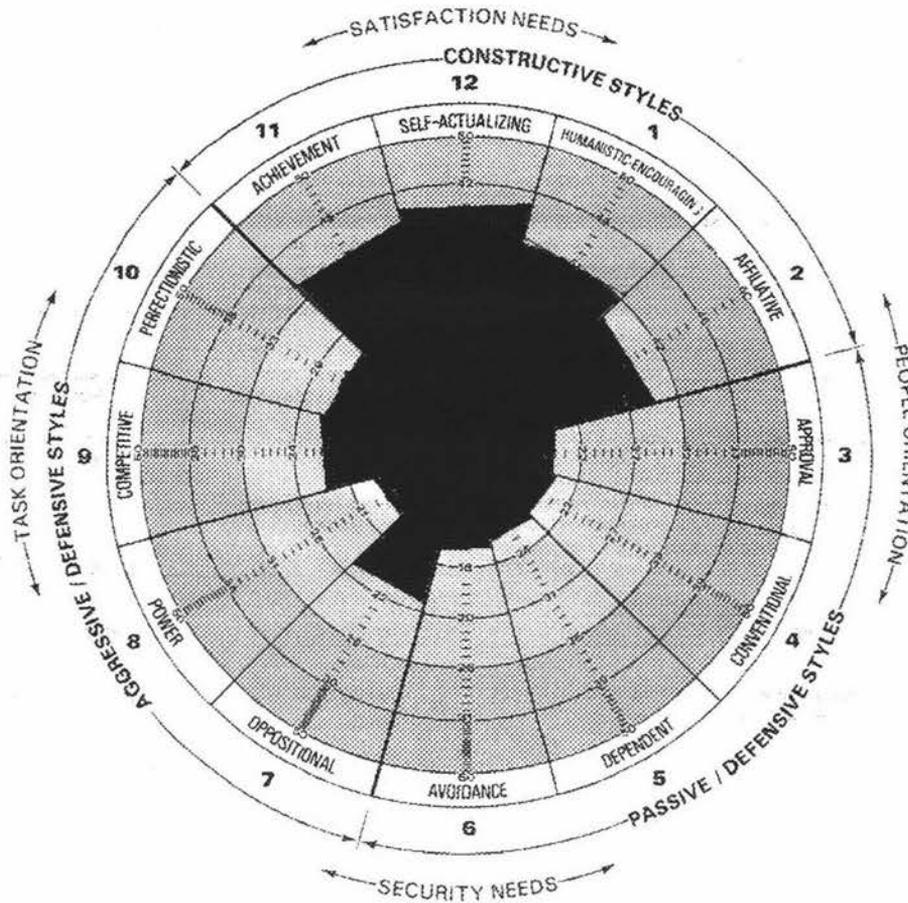


Figure 9. Culture profile of the satisfied members of NC (n = 11)

Relative to the norm, satisfied members culture profile is dominated by self actualising styles backed up by achievement, both of which are above the 75th percentile. The Approval, Conventional, Dependent, Avoidance, and Power styles are all below the 25th percentile. Compared to the total group's profile the constructive styles are higher, the aggressive defensive styles are marginally lower, and the passive defensive styles are considerably lower. This profile is very similar to profile characteristic of the high performance organisation shown in Figure 4. The basic shape is very similar, but the satisfied NC sample profile is much higher in the constructive styles, and generally lower in the defensive styles. This can be

interpreted as being evidence of the existence of a subculture within NC that is capable of extremely high performance.

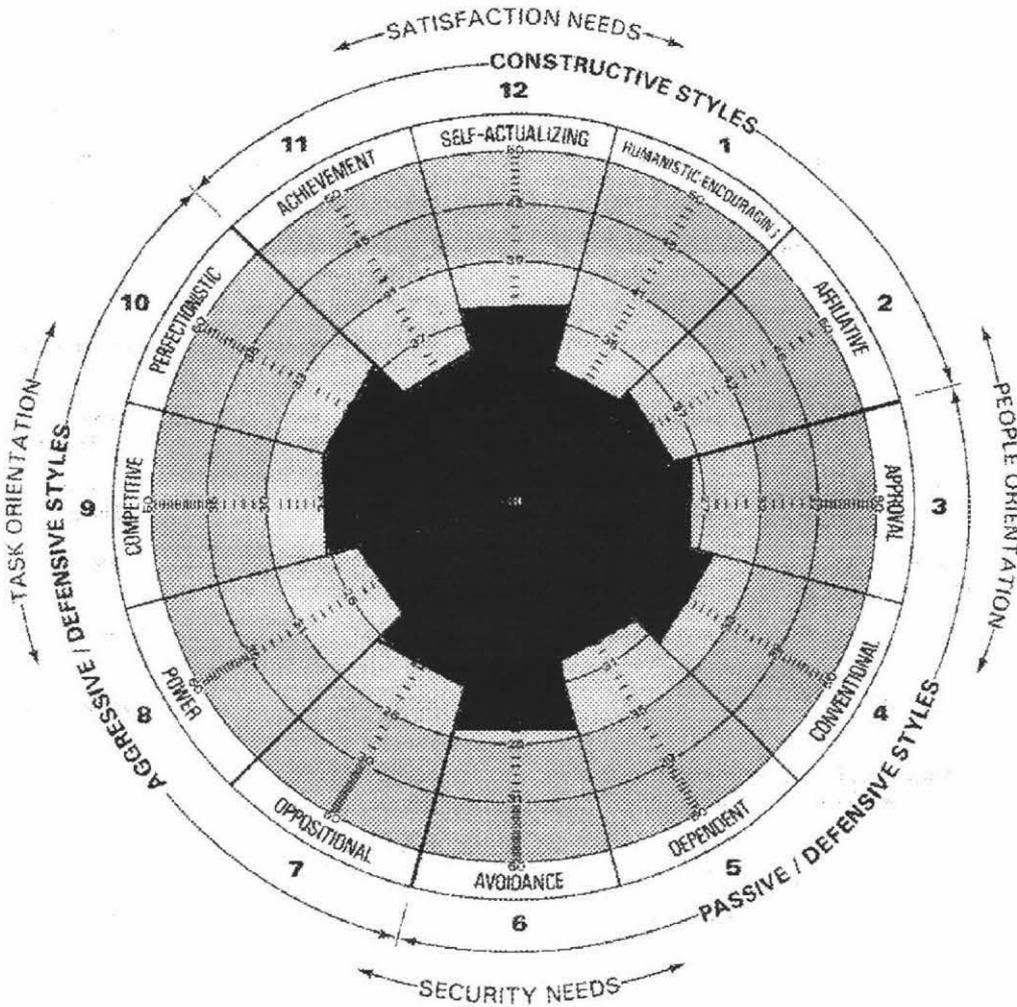


Figure 10. Culture profile of dissatisfied members of NC (n = 5)

The overall shape of the dissatisfied members' profile is quite different to that of the satisfied members' profile. In general, the main differences are that the constructive styles decrease and the defensive styles become more pronounced. The largest difference is in the humanistic encouraging dimension. The other constructive

styles also have fairly large differences. The difference in passive defensive styles are relatively high. The difference between aggressive defensive styles is relatively low. The direction of the differences reflect the nature of the correlation between satisfaction and constructive cultures.

Summary

The cultural profile of NC is strongly constructive and even more so when the dissatisfied group is removed. The dominant norms reinforce self actualisation, achievement, humanistic/encouragement, and to a slightly lesser extent, affiliative behavioural styles. The passive defensive styles are all very low so there is little emphasis on the approval, conventional, dependent, or avoidance behavioural styles. The aggressive defensive styles, with the exception of oppositional, are also relatively low.

In the following section the implications of this cultural profile are discussed in terms of the factors that lead to, and outcomes associated with, this combination of norms. The discussion draws from information provided by Human Synergistics (Cooke & Hartman, 1997) based on research using the OCI in different organisational contexts.

The Culture of NC—A Portrait

A Self Actualising oriented culture typically corresponds to a high value placed on creativity, quality over quantity, task accomplishment and individual growth and satisfaction. Members are encouraged to enjoy their work, develop themselves and

take on new and interesting activities. Self actualising organisations tend to be highly innovative, offer high quality services, and attract and develop outstanding employees.

Organisations with Achievement orientations encourage their members to do things well. Members are expected to set challenging yet realistic goals and establish plans to reach those goals. Achievement organisations are effective; problems are solved, clients and customers served well, and members think and behave in ways that are healthy and mutually beneficial to themselves and the organisation.

Humanistic/Encouraging norms typically correspond to participative, people centered organisations in which members are supportive of one another, conflict is resolved constructively, and positive rewards are the norm.

Affiliative norms mean that a high priority is placed on building and maintaining constructive interpersonal relationships. Co-operation is the *modus operandi*.

These four sets of norms dominate the culture of NC. However, there is also a noticeable presence of the oppositional norm however. If this norm is dominant, confrontation is prevalent and negativism is rewarded. This can lead to counter-productive conflict and poor group problem-solving. However, the presence of *some* oppositional norms in a constructive culture is both functional and necessary. It facilitates good problem-solving and decision making by encouraging the thorough examination of alternatives and scrutiny of proposed solutions. A certain amount of constructive conflict is desirable.

Factors leading to this type of culture

Management that encourages Self-actualisation dominated culture tends to be genuinely democratic. Everyone in the organisation feels that they have a great influence over what goes on in the organisation. This influence implies that members can translate organisational goals into individual objectives relevant to their needs, and set their own standards. Typically they perform a complete service, or produce an identifiable product. Their activities are interdependent and significant, and therefore members believe that their work has an important impact on the work of others. Job satisfaction is high as a result.

Emphasis is on rewards rather than punishment. Negative sanctions are avoided because they are inconsistent with the norms supporting the sharing of ideas, trying new ways of doing things, and being spontaneous and optimistic. When problems or mistakes occur, those responsible are encouraged to figure out what went wrong, generate solutions, and do it better next time.

The presence of the Achievement norm relates to the accomplishment of tasks. Emphasis is on personal responsibility. People tend to have a lot of influence over their work including job design, and personal goal setting, which are expected to be both personally satisfying and relevant to organisational goals. As a result, members are able to internalise the goals of the organisation and align their own goals with those of the organisation. Achievement oriented organisations reinforce their cultures through the use of performance appraisal and reward systems that effectively define 'good performance' as outcomes that are valued by members. Evaluations are fair and are based on real measures of performance. Praise for good

performance is prevalent and is more strongly tied to achievement expectations than pay raises or promotions.

The affiliative norm also places a high priority on interpersonal relationships but involves a more explicit focus on members satisfaction than the humanistic encouraging culture. It equates to a climatic feelings of a 'friendly place to work' that emphasises caring and support.

Outcomes

The dominant Self Actualisation style, and the supporting Humanistic/Encouraging style are strongly related to a number of important outcomes. The members of organisations in which this style is prevalent, typically feel that they 'fit in' well, are satisfied, and intend to stay with the organisation. Due to the usually interesting nature of their jobs and the possibilities for growth, they report a high level of motivation and are willing to put more effort into helping the organisation achieve success. Teamwork and co-operation is usually widespread. In particular, people feel that they can rely on one another when they need help. Problems are solved, mistakes do not have to be covered up out of fear, and members are actively seeking out ways to innovate and do things better. As such, they feel the services offered are of the highest quality possible. It is also likely that these organisations, while very loosely organised and organic, can easily adapt to environmental changes while maintaining their effectiveness.

Achievement norms lead to organisational members perceiving their organisations as highly effective. They view their service as being the highest quality possible. They see their organisations as being highly responsive to the changing needs and

preferences of customers, suggesting a high level of client satisfaction. Members of these organisations are generally satisfied. They plan to stay with the organisation and would strongly recommend it to others as a good place to work. This satisfaction is partly due to clear role expectations. They are expected to think and behave in terms of achieving goals which, in turn, are clear and well understood. Members of such organisations generally feel that they 'fit in' without having to do anything which is inconsistent with their own identities. Motivation is high and people generally do their best to help the organisation reach its goals.

The presence of the affiliative norm tends to lead to positive feelings towards the organisation and members would generally recommend it to people like themselves as a good place to work. Members understand what is expected of them to it in and are comfortable with those expectations. It engenders co-operation and teamwork, and generally leads to an effective organisation.

DISCUSSION

Recent advances in communication technology and information technology (CT/IT) are the catalyst for the emergence of some unique forms of work organisation. The integration of these technologies into the central functioning of an organisation provides the means to transcend the restrictions of space and, to some extent, time. It is now unnecessary to confine an organisation to a physical location. The product of the information age is information, and thus it can be transported almost instantaneously across any distance. Consequently, employees of the organisation increasingly do not have to work in the same place. It is increasingly possible to engage temporary employees on a contract basis. These factors allow huge savings to be made on overheads. The organisation can focus on its core competencies. Then, by ensuring that all members of this core group are independently self-sufficient in their own right, it is no longer necessary for the organisation to pay wages or salaries. Once again, savings are made on overheads. The result of this arrangement is that the organisation becomes eminently flexible, adaptable and responsive. The 'organisation' takes on an amorphous nature, able to continuously reconfigure itself to meet the needs of its market, and furthermore, the needs of other markets.

The resulting form of organisation has been termed Virtual Organisation (VO) to denote its inherent transience, fluidity and intangibility. In the age of information

this form of organisation self perpetuates. The availability of CT/IT both enables the evolution of VO, and necessitates it. Their responsiveness, cost effectiveness, and agility make VO's strong competitors. One way to compete is to emulate. Thus it can be predicted that the virtual model of organisation will proliferate.

This basic premise of this thesis is that, from the perspective of Organisational Psychology, the virtual mode of organisation engenders a working arrangement that is significantly different to that experienced in the conventional model. For example, the maintenance of independence is somewhat incompatible with the conventional hierarchical system of authority. The traditional employer/employee relationship becomes confused. The participant in the VO is more of a partner in the organisation than an employee of the organisation. Current organisational theory will not necessarily apply in this context. The VO represents social psychological situations requiring a mindset quite different to that of the conventional organisation. For instance, one of the definitive features of VO is the relative lack of physical interaction among participants. When it is considered that important cultural knowledge is passed on and reinforced primarily through interpersonal interaction and socialisation (Schein, 1992), the question must arise whether or not it is possible for a VO to maintain a consistent and pervasive organisational culture. If not, we may then ask also whether it is possible for VOs to be successful over time; and if so, it may be that implicit culture becomes less important as organisations increasingly move into more virtual modes of operation. A more explicit form of culture may evolve. Culture exists on different levels. Deep paradigmatic assumptions are shared by all members of a society. Certain assumptions are shared by almost all members of an occupational grouping. So, at

least when the organisation exists in one country only, a certain measure of shared cultural knowledge is ensured by default. More can be ensured by selection procedures (Trice, 1993). Over and above this level of shared understanding, procedural documentation may be enough to ensure an adequate level of shared understanding in a VO. Because the members of VO's do not share much physical contact, it may be that culture is necessarily made more explicit. Rather than relying on tacitly agreed upon norms, the successful VO will create very explicit cultures in the form of contracts and procedural documents. Consequently, it has been argued in this thesis that the most useful unit of analysis is that of the 'basic social processes' involved in VO. Given the relative lack of empirically based theory and research concerning the VO, it has also been argued that initially, the most fruitful way to study the VO is to adopt an inductive stance, and to conduct an exploratory and descriptive analysis.

An inductive qualitative study utilising the Grounded Theory methodology was conducted with the aim of developing a substantive theory of the salient basic social processes encountered in VO. Rather than answering questions (i.e. testing hypotheses), the main purposes of Grounded Theory is to generate hypotheses for investigation at a later date. The value of the Grounded Theory method is that these hypotheses can be developed from empirical data rather than abstract conceptualisation. In this way subsequent research is based on a sound empirical platform. The qualitative analysis was augmented with a quantitative analysis of the behavioural norms and expectations present within the VO using the OCI (Cooke & Lafferty 1997).

The following section discusses the findings and implications of the qualitative phase, and then the quantitative phases. The association between the findings of these two phases are discussed sequentially. The central theme of the findings is related to Festinger's (1957) Cognitive Dissonance theory, and to Schneider's (1987) Attraction-Selection-Attrition model of culture formation. The discussion is concluded by a set of hypotheses derived from the research.

The Qualitative Phase

The core category that emerged from Grounded Theory analysis was "Achieving Symbiosis", a process of attaining equilibrium between two competing motivations: The need to (1) maintain a high level of autonomy, and (2) maintain collaborative relationships with the other members of the organisation. This was closely related to "A Regression Towards Convention"—a tendency of the participants to solve organisational problems by becoming less virtual and more conventional; "Formalising the Informal"—a process whereby the informal elements of networking are formalised into procedural documentation in order to create the trust necessary for VO; "Virtual People"—the emergence of a group of people for whom the model works well in contrast to a group for whom it doesn't.

This central variable is indicative of the VO's departure from the authoritarian and paternalistic nature of the conventional organisation (Banner & Gagne, 1995). The operating logic of the VO is such that the independence of all participating entities, whether they be individuals or organisations, is crucial. It is only through maintaining that independence that the organisation is able to function in its fluid and adaptable way. Dependence inhibits this strength. Martin (1996) also points

out that this criterion of independence forces each entity to maintain a level of competence, of a standard set by the relevant market forces. To a certain extent this transcends the problem faced by conventional organisations of their competencies becoming obsolete through isolation from the demands of the wider market. The independence of all members also enables the VO to avoid the overheads of salaries and premises.

This autonomy is off-set by the need for collaboration. The VO's strength is in its capacity to put together project teams perfectly suited to the job at hand. In order for these teams to function, their members must collaborate and cooperate to a high degree. This involves trust and leadership. Trust is not necessarily an intuitive option when dealing with people that one does not know very well and who do not share an equivalent interest in the outcome of an operation. Membership to the VO ensures some commonality of interest and some degree of shared experience, but is it enough to base trust on? The "Formalisation of the Informal" is one way in which the VO, to a certain extent, transcends the need for trust. Relationships that have always existed in business as implicitly agreed upon informal "I'll scratch your back if you scratch mine" arrangements, now exist in the form of procedural documentation that explicitly states the parameters of that relationship. Instead of informally 'owing a favor' the reciprocity is ensured by a stake in the profit made from any interaction. NC have developed quite detailed procedural documentation by which they manage the operation of any project team. There are specifications for how the project should be managed, how quality is ensured, and how remuneration is divided among project members.

This is an example of the way in which the dissonance between the two facets of the core category has been dealt with, i.e. a “Regression Towards the Conventional”. There is much evidence in the data of a perception that the problems of internal and external integration experienced by the organisation, should be met with action characterised by a return to a more conventional method of organisation. The original conception of the organisation maintained no hierarchical structuring. Over time however, primarily in response to a perceived need for accountability, a directorship was set up. It was originally intended to be little more than a figurehead intended to meet legal requirements, and to perform some administrative functions, but it has evolved into an entity possessing a significant amount of influence and control over the group. There is some resentment amongst members of the organisation who feel that this is a contradiction of the non-hierarchical philosophy of the model. Conversely however, there are also those who feel that it is a step in the right direction, and that the organisation would benefit from some more structure. This difference in opinion is characteristic of a split in the group between those for whom the model is working well, and those for whom it is not. This difference may be attributable to the extent to which each has achieved harmony between the two variables of the core, or it may be that there are certain ‘kinds’ of people who are more suited to the virtual model.

The intended role of the directorship, i.e. a representative of the shareholders, has been somewhat compromised. The directorship in many ways represents a privileged elite section of the organisation. In the interview data members of the organisation repeatedly refer to the directors as “them”, and to the rest of the

members as “us”. The directors refer to themselves as “we” or “us” and to the rest of the organisation as “them”. This reversion is another facet of the tendency to revert to the conventional. The formation of ‘directorship’ was the ‘known’ solution to a problem, it was the easy option. The function of the directorship has followed the pattern dictated by experience, i.e., the conventional. It has taken on a somewhat autocratic managerial function. This is perhaps not surprising as it is what people know, and it has worked in the past. This is however the problem with a new paradigm. It is not necessarily going to be the things that have worked in the past that will work now. An explicit effort must be made to ‘think outside the square’. Solutions must be assessed for the extent to which they align with the operating logic of VO.

This may be a pattern that will continue. The VO is a new paradigm that will evoke new problems and uncertainty. The tendency will always go with what is known, but this option will often be unsuitable. The new paradigm will demand new ideas and solutions. The formation of a directorship in NC can in some ways be thought of as compromising the operating logic of the virtual form. There may be no room for ‘super peers’ in a non-hierarchical system. It is unclear whether the total absence of formal hierarchy is a necessary condition to fulfilling the promise of the virtual model, but it is definitely a possibility.

In the introduction it was suggested that because of the lack of precedent and models to follow there would inevitably be problems encountered in setting up a VO. On the basis of the interview data obtained from NC this certainly seems to be the case. According to the typology provided by Miles and Snow (1992), NC

would appear to conform to the definition of a Stable Network. Other than a vague description however, Miles and Snow do not outline a detailed operating logic for this form of organisation. It was suggested in the introduction that the VO may be best viewed as an organisation that possesses levels of 'virtualness', that exist on a number of different continua. For instance the degree of hierarchy, the degree of geographical dispersion, the degree of formal contractual arrangements, the degree of independence and interdependence, and the degree of transience of alliances, are all dimensions of virtualness that can vary. It is unclear as to what the operating logic of the model specifies as being the ideal proportions of each dimension for the effective functioning of the VO. It is likely that this varies according to the demands of the market in which the organisation operates, and of the capabilities of its members. The supposed strengths of the virtual model however (i.e. the fluidity, agility, responsiveness and adaptability), surely must specify an ideal combination of the aspects of virtualness. This is one very productive area for future research. Once this is more clear, the individual competencies that will be necessary to operate in such an organisation will also be clearer.

The Quantitative Phase

To enhance and corroborate the findings of the qualitative phase, the behavioral norms and expectations present in NC were assessed using Cooke and Lafferty's (1983) quantitative Organisational Culture Inventory (OCI).

The OCI (Cooke & Lafferty, 1983) isolates cultural traits within an organisation. The model on which it is based identifies the foundations of culture as normative beliefs, which are individually held assumptions about acceptable behaviour in the

group; and shared behavioural expectations, which are those normative beliefs accepted by the group. Three distinct cultures are empirically derived from these sources: Constructive, Passive-defensive, and Aggressive-defensive (Cooke & Hartman, 1997).

Initial analysis of the OCI results from NC, revealed a cultural profile dominated by constructive styles. A constructive culture generally promotes interaction with others and self fulfillment through the following norms:

- (1) Achievement: Members are encouraged to pursue a standard of excellence, set challenging and realistic goals and work hard to achieve those goals.
- (2) Self-actualising: An emphasis on creativity, quality, task accomplishment and individual growth, and enjoyment of work.
- (3) Humanistic-encouraging: An emphasis on participative, person centered management, members help each other grow and develop.
- (4) Affiliative: Constructive interpersonal relations are given high priority and members are friendly, open, and sensitive to their colleagues.

In passive-defensive cultures, dominated by approval, conventional, dependent, and avoidance, interaction among members is cautious and members seek security. In aggressive-defensive cultures members are expected to be strong, independent and Machiavellian due to oppositional, power competitive and perfectionistic norms prevailing. These twelve traits exist in all organisations to varying degrees. The model constructs culture as something that affects both the satisfaction and performance of organisational members. Constructive cultures generally have positive effects, the influence of Passive-defensive cultures varies depending upon

members personalities, and Aggressive-defensive cultures tend to have undesirable effects on organisations (Cooke & Hartman, 1997). The personality and life situation of members will always be a moderating variable in terms of the individual's member's satisfaction. For instance a very introverted person, motivated primarily by security needs may not experience satisfaction with an organisation in which the constructive styles dominate. Similarly, such people may experience great satisfaction in a Passive-defensive culture.

The whole organisation was included in the sample, but only about 50% (n=23) responded. In order to generalise from this sample the nature of the non-response bias was assessed. The major reason for non-response was either discontinued membership, time factors, or disinterest. The exclusion of 'disinterested' non-respondents may represent a systematic bias in the sample, but would not corrupt the findings significantly. Consequently, the sample is taken to be fairly representative of the whole organisation. The sample size is not large enough to make any strong statistical inferences but, in accordance with the general exploratory and descriptive design of this thesis, it is more than sufficient. The results are used to indicate tendencies and general patterns in the organisation, and to compare and contrast with the qualitative findings.

The cultural profile of NC revealed a set of cultural norms that characterise a strongly constructive culture. There are however, relatively strong norms for opposition and avoidance behaviour reported. It is possible that, especially in the presence of strong constructive norms, the presence of oppositional norms is beneficial. Although the OCI literature tends to portray Oppositional norms as a

negative influence on the organisation (e.g. Cooke & Hartman, 1997; Cooke & Burack, 1995), it is argued in the results section above, that given a basically constructive culture, the existence of norms for some oppositional behaviour may be desirable. However, the existence of norms for Avoidance behaviour is more difficult to reconcile with an otherwise constructive culture. One explanation that was advanced is that there is a confounding variable in the assessment of NC's culture. The strength of some of the more dysfunctional norms in conjunction with the presence of constructive norms, can be interpreted as evidence of a counter culture that is confounding the results.

The OCI includes additional assessment of Role clarity, Person/Organisation fit, and Job satisfaction, in the organisation. These 'outcomes' are highly correlated with culture (Cooke, 1997), and therefore, while they cannot be said to be causative variables on the strength of correlations, there is nevertheless a strong likelihood of causative relationships existing.

The extent of Role clarity reported in NC was fairly high. It was assessed by measuring the extent to which organisational members know what is expected of them, and the extent to which they receive inconsistent messages regarding that expectation. On the basis of the geographical dispersion and low level of physical interaction in NC it could be hypothesised that role clarity should be low. On the other hand it may also be the case that, because of these very conditions, it has been necessary to ensure a high level of role clarity. The results confirm the latter expectation. Even with the low levels of interaction relative to conventional organisations, NC members perceive a high level of role clarity. Although the 95%

confidence intervals constructed around the normative comparisons reveal that the NC sample may not be radically different to the norm, the role clarity in NC is clearly high. From this, and given that these relatively strong results were obtained from very small sample sizes, it may be further hypothesised that clear communication is possible within the VO.

Person / Organisation fit (POF) was assessed by measuring the extent to which members of NC reported feeling that they fitted in well, and the extent to which membership to the organisation required them to act differently than they otherwise would. On this basis, the difference between the proportion of those who did and did not experience good POF was not large. At least the same proportion of people in the organisation reported low to moderate POF as those who reported high POF. This trend was very similar to the norm. This is interpreted to indicate that, within the sub-population attracted to working in VO, there is a similar level of 'alienation' as in the conventional organisation.

Job satisfaction was assessed by evaluating the extent to which members of NC reported that they were satisfied with the organisation, and the extent to which they felt that they would recommend it to people like themselves as a good organisation in which to work. An additional question assessing the extent of intended attrition from the organisation was also included. It was argued that this measure lacks construct validity in assessing job satisfaction, because there may be many other reasons for reporting an intention to leave the organisation other than low satisfaction. On the strength of the remaining two questions, the level of job satisfaction reported in NC was high. This is interpreted as evidence that the VO is

a rewarding method of organisation for the kind of people who are members of NC. Also that, even though some may find it difficult to 'fit in', the virtual form of organisation is nevertheless perceived as agreeable. This is further evidence that VO may be a rewarding and fulfilling way to organise work.

The 'redundant' measure of job satisfaction, i.e. the extent to which the members thought that they would leave the organisation within the next two years, revealed a relatively high level of intended attrition. However, given the concomitant high level of job satisfaction, this may be indicative of a trend particular to VO. The transience inherent in the model would be consistent with the hypothesis that turnover will be high in VO.

A comparison with a cultural profile typical of a high performing organisation, shows that while the oppositional and avoidance norms in NC are higher than the other defensive styles, they are considerably lower than the constructive styles. One of the most interesting findings of the quantitative phase was that, by factoring out the data associated with members of the organisation who are not satisfied with the organisation, the profile obtained from the remaining group, i.e. those who are satisfied with the organisation, is much more constructive in orientation. All the constructive styles increase, and except for Affiliative, the increases are all statistically significant at the 95% level of confidence. All the defensive norms drop to varying degrees. Similarly, the change in the Oppositional style is great enough to be statistically significant at the .05 level. All the others drop, and while the differences are not significant at the 95% level of confidence, this nevertheless suggests a definite tendency. Interestingly, the Oppositional style shows the

smallest change. Given that the overall change of the satisfied group is towards an even more constructive culture, this is consistent with the hypothesis that relatively high Oppositional norms may be advantageous. The fact that the portion of the NC sample that report a high level of satisfaction with the organisation, also perceive a high incidence of constructive norms and a relatively high incidence of oppositional norms lends credence to this prediction. The identification of this group is essentially the identification of a sub-culture. One that experiences the culture of NC very differently from the rest of the organisation.

In general, the results indicate a culture that is very constructive, and indicative of a high performance organisation. However, examination of the Circumplex profiles of the culture indicated by the OCI begs the question: Why are the constructive norms not higher? While they are high, there is certainly a lot of room for improvement. One answer may be that the questions assessing these dimensions may not be entirely appropriate in the context of VO. For instance measuring the Humanistic-encouraging dimension, the question: "To what extent are people expected to help others think for themselves?" Given the high degree of independence that is necessary in the virtual model, it is not likely that this is a norm that would be required to "fit in" to NC.

The association between quantitative and qualitative findings

The results of the quantitative phase, using the OCI, indicated a set of behavioural norms and expectations perceived as necessary for 'fitting in' in the organisation. The overall picture was that of very constructive cultural norms promoting Achievement, Self-actualisation, Humanistic encouragement, and to a lesser extent,

Affiliative behaviours. Passive-defensive and Aggressive-defensive styles were, with the exception of Oppositional style, all fairly low. This kind of culture characterises an organisation that encourages its members to interact with others, and approach their work in ways that enable the fulfillment of higher order needs. It is a cultural profile associated with very effective organisations.

Corresponding to the high levels of independence and individualism identified in the Grounded Theory, the OCI identified Dependent norms as being particularly low and Oppositional norms as being relatively high. In conjunction with the low score on affiliative norms (relative to the other constructive styles), this combination reflects the ‘uneasiness’ of the symbiosis that demarcates the dissonant relationship between the motivations towards independence and collaboration that forms the core category. The Affiliative style corresponds to behaviour enabling collaboration, and is perhaps somewhat negated by the prevalence of the oppositional norms. It is likely that the emphasis on oppositional behaviour characterised by this norm is a function of the emphasis on independence and individuality. The ‘primadonna’ effect, mentioned in the Grounded Theory, that arises from the inherent propensity of the organisation’s selection criteria (and perhaps of the type of organisation itself), to attract very individualistic and self reliant people. Furthermore, in the relative absence of hierarchy, norms that reinforce critical appraisal and participative decision making, would correspond to the presence of oppositional norms. The Oppositional styles are described in the OCI Leadership Manual in a relatively negative manner, but with the emphasis on constructive styles it is possible that the strong norm for oppositional behaviour enhances that constructiveness. A certain amount of conflict is desirable because it

promotes better decision making. For instance, according to Janis (1983), a group with overly high cohesiveness, and lacking in norms promoting critical appraisal of decisions and procedures, can fall prey to “a deterioration of mental efficiency, reality testing and moral judgement as a result of in-group pressures.” (Janis, 1983. p.9). The author formulated a theory called ‘Groupthink’ in order to explain this pattern of behaviour, identified as the main problem in numerous instances where highly capable groups of experts have made very bad decisions.

The predominance of the Self-actualising norms also corresponds to the Grounded Theory. It reflects the desire for a ‘a better way of working’ that is fulfilled by the VO. Part of this desire again goes back to the independence motivation that characterises the members of NC. The ‘high level consulting’ that is the basis of NC’s modus operandi fits well with the emphasis on the fulfillment of higher order needs. The typical high level consultant is a mature, successful person, often in the later years of a profession. This kind of person will often have fulfilled their security needs previously. Within NC there is however another group of people. The organisation’s focus on IT related consulting necessitates the inclusion of computer programmers in the organisation’s membership. These people are predominantly of a younger age-group and as such, may tend to be motivated more by security needs (i.e., buying first house, starting family). This may explain the apparent split in the group between those for whom the model works well, and those for whom it doesn’t.

Similarly, the fact that the Competitive and Power norms are low, especially in comparison to the typical management consultancy organisations, corresponds well

with the concepts of the Grounded Theory. The low incidence of Competitive norms reflects the need for collaboration in the virtual model. Also, to a certain extent the non-hierarchical, peer-based structure negates the need for competition within the organisation. While the Competitive norms are low however, they are not non-existent. This could be further interpreted as an aspect of the core category. At the same time as competition is counter-productive in terms of collaboration, and unnecessary due to low hierarchy, it is also an intrinsic part of being independent that one must maintain a competitive advantage over others. The low level of Power norms is consistent with the low level of hierarchy present in the VO. In the peer-based structure, there is no room for attempts at developing power over others in the organisation.

One of the things that sets NC apart from a more traditional organisation, and is intrinsic to the virtual model, is that being a member of the organisation, is not the same as being an active member. In the traditional model, membership to an organisation is, by definition, active membership. You work for your salary. Being a member of NC however is different. You can be a member and play no active role whatsoever. The fact that all members must maintain their self sufficiency means that it is possible for the organisation to be inactive. Because there are no overheads there is no requirement that the organisation generate an income.

The transient aspect of the VO means that commitment to the organisation is somewhat illogical. One of the benefits of the virtual model is that it is 'non-exclusive'. Membership does not preclude other enterprise. It does not restrict the individual in the same way as membership to a more traditional organisation would.

In terms of commitment to the organisation this is however a potential weakness. The individual's motivation to self-maximise unless there exists a perception that the virtual relationship is to be enduring, is a central feature of the dissonance in the core category. The structure of NC is reinforcing the perception that commitment to the organisation is not necessary. Commitment implies some sacrifice, but why should the individual make a sacrifice for an organisation that guarantees nothing in return? The prevailing motivation will be to commit to the organisation unless something better comes along. This is a cultural norm that is implicitly reinforced by the structure of NC. For those who tend to be more committed to the organisation, (for instance those who are the founding members) the presence of this norm may be unsettling.

The question was raised in chapter two of whether cultural norms could form in the dispersed virtual organisation. Both the qualitative analysis and the quantitative analysis reveal considerable agreement across the organisation as to what the dominant values and norms are. Although the organisation does not exist in a common location, many of its members never meet one another, and yet there is an identifiable shared pattern of understanding. One interpretation of this is that the 'sharedness' is not so much a function of shared experience, but rather of selection criteria and attrition. The virtual model is particularly attractive to people with a certain mind-set, and it is only possible for certain kinds of people to be successful within the model. The result is that a fairly uniform profile is selected into the organisation and natural attrition processes hone this down even further.

It is unclear however whether or not this apparent agreement exists as a function of the shared experience obtained from working together, or whether it is a function of the recruitment of a certain kind of person, i.e. the independent consultant. There may be a distinction between a 'selected' culture and an 'evolved' culture. This relates to the omnipresent nature/nurture debate. In an attempt to reconcile nature with nurture, organism with environment, person with culture, Schneider (1987) proposes an Attraction-Selection-Attrition (ASA) model of culture formation whereby the personalities of organisational members and the culture of their organisation are irrevocably intertwined. Culture is an effect of people interacting in organisations, and it also acts upon those individuals, influencing their behaviour. The ASA model holds that people are initially attracted to an organisation's goals, operating procedures, and culture. They are selected into the organisation on the basis of selection criteria consistent with the operating logic of the organisation, and they either stay or leave according to how comfortably they fit into the organisation.

The goals and operating procedures of the organisation are initially defined by the founders of the organisation and thus certain cultural parameters are predetermined. Over time the people who are attracted to the organisation influence it in their own way and the culture changes. So, (depending upon the vision of the founders) it would be expected that an organisation's culture would initially be fairly consistent with the operating logic of the organisation.

NC is a new and unusual kind of organisation, and its unique modus-operandi will be both a powerful attraction, and a powerful agent of attrition for new members. What may be seen in the VO is that the effect of ASA is more powerful than ever.

The culture of the organisation will strongly reflect the structure and procedures of the organisation.

Conclusions

The central theme of the findings of this thesis is that there is a source of dissonance intrinsic to VO that originates from the concomitant need for autonomy and collaboration. The central issue is that there are two competing motivations, collaboration and independence. The VO requires both these characteristics in its members and as a result there is some difficulty experienced by the participants. This difficulty manifests in the tendency of the organisation to revert to conventional structure. It manifests as a split between factions in the organisation. There are those who desire more structure and those who desire less. It has manifested in "Regression Towards the Conventional", (e.g., the evolution of a directorship), that is seen by some as being a contravention of the basic philosophy of the VO. These manifestations are, to varying degrees, dysfunctions. The social psychological theory that best describes this characteristic is Festinger's (1957) Cognitive Dissonance Theory. Cognitive dissonance is a state of psychological tension produced as a result of holding two opposing cognitions simultaneously, that motivates the individual to reduce the tension, often by changing or rejecting one of the cognitions. Festinger (1957) maintains that we continually seek harmony in our beliefs, perceptions, attitudes and behaviours, and actively try to reduce tension caused by inconsistency in among these elements. If two competing motivations are perceived to be important, psychological tension will be experienced. In order to alleviate this tension the individual will often rationalise

the reorientation of one of those motivations to comply with the other. The implication is that this 'rationalisation' will often be irrational. It is often maladaptive, in that it can prevent a person from dealing with the actuality of the dissonance (Aronson, 1972). Whereas two motivations may be competing (as in the case of the independence and collaboration), they are not necessarily mutually exclusive. The tendency of some NC members to reconcile this dissonance by compromising the operating logic of the VO, can be interpreted in these terms. On the other hand the formalisation of the informal could be seen as a more constructive resolution of the dissonance.

The participation in VO may also induce other dissonant perceptions. For instance the simple belief that hierarchy of authority is necessary in order to achieve group-based work is learned through socialisation in many different institutions throughout one's life (Banner & Gagne, 1995). When confronted with an organisation in which the operating logic is contrary to this belief, dissonance may be experienced. If so, the theory predicts that the individual will either change their beliefs regarding the necessity of hierarchy, or they will alter the perception of the operating logic of the VO. It is perhaps the latter that explains the regression towards the conventional organisational form that is evident in NC. The implication is that dissonance caused both by intrinsic features of VO, and by the incomensurability of the virtual paradigm with the conventional paradigm, must be resolved in a constructive manner. The sources of dissonance must be identified and resolved without contradicting the operating logic of the VO.

The method of organisation employed by NC is not an entirely new one. It is

similar to the craft Guilds of old where the craftsmen of a particular area would operate both independently and also in conjunction for mutual benefit when the need and /or opportunity arose. In modern time too the practice of independently employed business people coming together temporarily as the current job necessitates is not uncommon either. For instance, builders, plumbers, electricians and other such tradesmen have been doing it successfully for decades. An analogous organisation is the construction company who forms a group of workers on a temporary basis for the completion of a finite project (Bresnen, 1988). What is perhaps new, is the level of formalisation that has been achieved by NC in terms of membership to the group and definition of roles within it. There may be similarities between that kind of trade group and the VO. An analysis of these similarities may reveal success factors and solutions to some of problems faced by the VO.

NC is a Management and IT consulting firm and as such it is probably ideally suited to the virtual model. Consultants traditionally work on the site of the client, they deal primarily with information, and they are likely to be self reliant and highly motivated. Thus the ideal combination of virtualness for them is probably towards the extreme in all dimensions. Different types of business, for instance law firms and accounting firms may also operate well in the virtual model. Each would have slightly different parameters within which to work and consequently their ideal location on the virtual continua would vary. It is also conceivable that the virtual model would work well for a grouping of interdependent trades. For instance in the construction industry groupings of trades-people such as builders, electricians, plumbers, drain-layers, roofers, painters, and landscapers could make use of the virtual model to create very competitive VO's. By utilising cell phones, email, web

sites and portable computers, a very sophisticated 'trades guild' could be formed. The independently employed trades-person will fit the necessary profile of a VO member well. They are, by definition, independently employed, and a success factor can be used as a criterion for selection into the VO.

Further Research

The culture of the VO studied is distinctive in many ways. One of the most pressing directions that future research must take is therefore to determine the extent to which that distinctiveness is as a function of virtualness. The following hypotheses are derived from the research. Testing them will provide valuable insight into the practicality of VO.

From the Grounded Theory, it is apparent that the most prevalent norm is the emphasis on independence and individualistic behaviour. On this basis, it would be safe to predict that these norms would be evident in a quantitative analysis of culture. Similarly, also due to the emphasis on independence, it is predicted that the affiliative norms will be relatively low. Also prevalent is the perception that NC, through VO, offers a 'better way of working'; a 'way of getting the best of both worlds'. By providing the means to retain the benefits of autonomy while also facilitating collaboration, and thus enabling greater innovation and creativity, the VO enables its members to flourish. This suggests that the VO provides its members with a way to meet needs over and above security needs. It would therefore be expected that self-actualisation norms would be high. The fact that the structure of the group is non-hierarchical would suggest that the focus on power relations would be relatively low.

Hypotheses

1. The virtual mode of organisation will only be suitable for certain people such as those with strong independence and individuality traits.
 - 1.1 The virtual model will be suited more to people who are younger and who have not been encultured into the traditional organisational paradigm.
2. The people who will operate best in the virtual environment will be those who are capable of working independently, but who also have the ability to develop short term collaborative relationships.
3. The virtual model, because of its emphasis on the self actualisation that characterises people in the later years of their career and life, will suit older people better than younger people.
4. The level of hierarchy present in the VO will be negatively related to its effectiveness.
5. The capability of the organisation to spontaneously form temporary hierarchy based on ability relative to the job at hand, will be positively related to performance.
6. The VO provides a way of working that will be experienced as more rewarding and fulfilling than the traditional organisation.
7. It is possible for an organisation in which the members have little or no physical contact, to convey cultural norms successfully.
8. Quality communication of behavioural norms and expectations within the VO is possible.

8.1 Because of the dispersed nature of VO, it will be necessary to formulate the expectations and norms explicitly, and consequently, the culture of such organisations will come to be more widely understood and shared than in conventional organisations.

NC are not totally virtual, in that they do engage in some degree of interpersonal contact, but their members are in direct contact far less than would be the case in a traditional organisation. A totally VO however, in which it is theoretically possible for members to be located all over the world, interpersonal contact as we commonly know it, would be minimal or non-existent. The results of the present study indicate suggest that it is possible for shared assumptions to develop and be maintained without direct contact - i.e. through email, video-conferencing, real-time Internet communication software etc.

General Applicability of the Findings

The purpose of Grounded Theory is not to develop a theory of universal applicability (Glaser, 1996). It is acknowledged that the theory applies primarily to the context of the participating organisation. Nevertheless it is safe to assume that some similarity exists between that organisation and other Virtual Organisations of similar configuration and as such there should be some degree of fit experienced by people working in other similar enterprises. An interesting extension to the study would be to assess the extent to which people in similar organisations around the world feel that the Grounded Theory emergent in this thesis fits with their own experience. The responses to this assessment could form the basis of another grounded theory of wider applicability.

An interesting follow-up to this study would be to track the un-satisfied group to see whether they leave the group as would be predicted by the ASA model. Furthermore it would be interesting to examine the nature of this group further. For example, determining their age, background, personality, and other personal characteristics would provide some idea of the kind of people who don't experience the VO as rewarding. This information could then be incorporated into selection procedures.

The main weakness of this study was time constraints. The nature of Grounded Theory is better suited to a more open ended research program. It would also have been advantageous to examine some of the procedural documentation, marketing material and personal communications that exist within the organisation in order to look at some of the manifestations of culture. A separate Grounded Theory could be conducted using such material. A comparison could then be made between espoused culture and perceived culture. It would be advantageous for NC, to analyse some of their practices, such as performance appraisal mechanisms (whether formal or informal), reinforcement procedures (formal and informal), and selection procedures, in terms of the culture evident in the above Grounded Theory, and in terms of the operating logic of the virtual model. These type of things need to be aligned with the desired culture of the group. In order to ascertain the 'desired culture' of the group, the OCI could be utilised. If the questionnaire is filled out according to what the members *would like the norms and expectations to be* rather than what they actually are, a cultural profile representative of what the organisation's members desire.

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Appendixes

Appendix A

Introductory email message

An Introduction ..

We have amongst us a Post Graduate student from Massey University in Albany.

His name is Nicholas Young on nyoung@extra.co.nz . Nicholas' mission is to explore the 'NC culture' with some astute and objective analysis that will comprise the research content of a Masters thesis in Organisational Psychology as it pertains to a virtual organisation such as ours. Consequently he may be contacting some of you over the next few months to participate in this research.

This project has the approval of the NC Board and Nicholas has signed a non-disclosure agreement. The outcomes of this research will hopefully be useful to NC, so if you get the opportunity, I invite you to work with Nick to support this interesting and potentially 'insightful' research project.

Regards,

(Name deleted to preserve confidentiality)

Appendix B

Interview Consent Form

Massey University
Psychology Department

ORGANISATIONAL CULTURE AND VIRTUAL ORGANISATIONS

CONSENT FORM

I have read the information sheet for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that I am free to withdraw from the study at any time, or to decline to answer any particular questions in the study. I agree to provide information to the researcher on the understanding that it is completely confidential.

I wish to participate in this study under the conditions set out in the information sheets.

Signed: _____

Name: _____

Date: _____

Appendix C

Interview Information Sheet

Massey University

Psychology Department

ORGANISATIONAL CULTURE AND VIRTUAL ORGANISATIONS

INFORMATION SHEET

Who are the researchers?

Nicholas Young
Ph. 846 2856
email: nyoung@xtra.co.nz

Dr Bernie Frey (Supervisor)
Ph. 4439700 x 9363
email: b.f.frey@massey.ac.nz

Aim of the Study

The present study is intended to examine the Virtual Organisation from a psychological perspective. The aim is to describe the dominant 'mind-set' that underlies this type of organisation. This will be accomplished using a combination of interviews, document analysis, and questionnaire measures.

What will you have to do?

You are asked to take part in a private interview with the researcher. This will involve an informal discussion focusing on your experience with NC Ltd. The interview will be taped (audio tape) and transcribed for analysis at a later date. The recording and transcription will be kept completely confidential.

How much time will be involved?

It is expected that the interview will take approximately 1.5 hours.

Confidentiality and Anonymity

In accordance with the professional codes of ethics for practicing psychologists confidentiality and anonymity will be a prime concern and will be rigorously preserved.

The focus of the study is on the dominant mind-set (culture) which, by definition, implies the aggregation of data, and focuses on *shared cognition*. For this reason individual situations will not be emphasised in the write-up. Nevertheless, any write-up of the research will provide sufficient anonymity such that no individual will be identifiable. The researchers will be the only people to view the raw data at any time. The interviewer has signed a non-disclosure agreement.

What can you expect from the researcher?

The researchers will be happy to answer any questions you may have regarding the study or your participation at any time.

If you take part in the study, you have the right to:

1. Refuse to answer any particular question, and to withdraw from the study at any time.
2. Provide information on the understanding that it is completely confidential to the researchers. All information is collected anonymously, and it will not be possible to identify you in any reports that are prepared from this study.
3. Be given access to a summary of the findings from the study when it is concluded.

Appendix D

The Organisational Culture Inventory

Please think about what it takes for you and people like yourself (e.g., your co-workers, people in similar positions) to "fit in" and meet expectations in your organization.

Using the response options to the right, indicate **the extent to which people are expected to:**

Place check marks and dots *down* the columns.
Use pencil or ballpoint pen, *press hard*.

Organizational Culture Inventory: Introduction

Every organization has its own culture and set of expectations for its members. For example, some organizations are "competitive" and members feel that they must out-perform one another; other organizations are "cooperative" and members are more likely to feel they should work together as a team.

This inventory presents a list of 120 statements which describe some of the behaviors and "personal styles" that might be expected or implicitly required of members of organizations. Please read

RESPONSE OPTIONS:

- | | |
|-------------------------|---------------------------|
| 1. Not at all | 4. To a great extent |
| 2. To a slight extent | 5. To a very great extent |
| 3. To a moderate extent | |

<input type="checkbox"/> don't out flaws	<input type="checkbox"/> stay detached and perfectly objective	<input type="checkbox"/> be hard to impress	<input type="checkbox"/> question decisions made by others
<input type="checkbox"/> show concern for the needs of others	<input type="checkbox"/> oppose new ideas	<input type="checkbox"/> look for mistakes	<input type="checkbox"/> remain aloof from the situation
<input type="checkbox"/> disagree with others in decisions affecting them	<input type="checkbox"/> help others to grow and develop	<input type="checkbox"/> oppose things indirectly	<input type="checkbox"/> refuse to accept criticism
<input type="checkbox"/> resolve conflicts constructively	<input type="checkbox"/> be a good listener	<input type="checkbox"/> take time with people	<input type="checkbox"/> play the role of the "loyal opposition"
<input type="checkbox"/> be supportive of others	<input type="checkbox"/> give positive rewards to others	<input type="checkbox"/> encourage others	<input type="checkbox"/> help others think for themselves
<input type="checkbox"/> stay on the good side of superiors	<input type="checkbox"/> agree with everyone	<input type="checkbox"/> back up those with the most authority	<input type="checkbox"/> be liked by everyone
<input type="checkbox"/> be a "nice guy"	<input type="checkbox"/> stay conscious of fashion	<input type="checkbox"/> set goals that please others	<input type="checkbox"/> out-perform their peers
<input type="checkbox"/> do things for the approval of others	<input type="checkbox"/> make sure they are accepted by others	<input type="checkbox"/> compete rather than cooperate	<input type="checkbox"/> be a "winner"
<input type="checkbox"/> "go along" with others	<input type="checkbox"/> always try to be right	<input type="checkbox"/> be the center of attention	<input type="checkbox"/> maintain an image of superiority
<input type="checkbox"/> win against others	<input type="checkbox"/> be seen and noticed	<input type="checkbox"/> never appear to lose	<input type="checkbox"/> turn the job into a contest
<input type="checkbox"/> work to achieve self-set goals	<input type="checkbox"/> explore alternatives before acting	<input type="checkbox"/> set moderately difficult goals	<input type="checkbox"/> think ahead and plan
<input type="checkbox"/> accept goals without questioning them	<input type="checkbox"/> take on challenging tasks	<input type="checkbox"/> pursue a standard of excellence	<input type="checkbox"/> take moderate risks
<input type="checkbox"/> be predictable	<input type="checkbox"/> be a good follower	<input type="checkbox"/> work for the sense of accomplishment	<input type="checkbox"/> openly show enthusiasm
<input type="checkbox"/> never challenge superiors	<input type="checkbox"/> ask everybody what they think before acting	<input type="checkbox"/> follow orders . . . even when they're wrong	<input type="checkbox"/> know the business
<input type="checkbox"/> do what is expected	<input type="checkbox"/> please those in positions of authority	<input type="checkbox"/> check decisions with superiors	<input type="checkbox"/> willingly obey orders

each statement and indicate the *extent to which* the behavior described helps people to "fit in" and meet expectations in your organization.

When responding to the statements, you might find it helpful to consider the behaviors expected by and rewarded by people in higher positions. Please keep in mind that all the statements refer to the way people *within* your organization are expected to *deal with one another* rather than with people external to the organization.

<input type="checkbox"/> cooperate with others	<input type="checkbox"/> use good human relations skills	<input type="checkbox"/> motivate others with friendliness	<input type="checkbox"/> be tactful
<input type="checkbox"/> deal with others in a friendly, pleasant way	<input type="checkbox"/> treat people as more important than things	<input type="checkbox"/> be open, warm	<input type="checkbox"/> act forceful
<input type="checkbox"/> think in terms of the group's satisfaction	<input type="checkbox"/> share feelings and thoughts	<input type="checkbox"/> stay on the offensive	<input type="checkbox"/> play "politics" to gain influence
<input type="checkbox"/> show concern for people	<input type="checkbox"/> demand loyalty	<input type="checkbox"/> build up their power base	<input type="checkbox"/> be hard, tough
<input type="checkbox"/> never relinquish control	<input type="checkbox"/> use the authority of their position	<input type="checkbox"/> personally run everything	<input type="checkbox"/> maintain unquestioned authority
<input type="checkbox"/> personally take care of every detail	<input type="checkbox"/> appear to work long hours	<input type="checkbox"/> set unrealistically high goals	<input type="checkbox"/> do things perfectly
<input type="checkbox"/> not "rock the boat"	<input type="checkbox"/> never make a mistake	<input type="checkbox"/> be precise . . . even when it's unnecessary	<input type="checkbox"/> view work as more important than anything else
<input type="checkbox"/> avoid confrontations	<input type="checkbox"/> treat rules as more important than ideas	<input type="checkbox"/> keep on top of everything	<input type="checkbox"/> appear competent and independent
<input type="checkbox"/> make a "good impression"	<input type="checkbox"/> tell people different things to avoid conflict	<input type="checkbox"/> always follow policies and practices	<input type="checkbox"/> persist, endure
<input type="checkbox"/> conform	<input type="checkbox"/> accept the status quo	<input type="checkbox"/> avoid risks	<input type="checkbox"/> fit into the "mold"
<input type="checkbox"/> be non-committal	<input type="checkbox"/> put things off	<input type="checkbox"/> not get involved	<input type="checkbox"/> push decisions upward
<input type="checkbox"/> make "popular" rather than necessary decisions	<input type="checkbox"/> "lay low" when things get tough	<input type="checkbox"/> wait for others to act first	<input type="checkbox"/> be open about self
<input type="checkbox"/> take few chances	<input type="checkbox"/> never be the one blamed for problems	<input type="checkbox"/> be spontaneous	<input type="checkbox"/> enjoy their work
<input type="checkbox"/> shift responsibilities to others	<input type="checkbox"/> be concerned about their own growth	<input type="checkbox"/> do even simple tasks well	<input type="checkbox"/> think in unique and independent ways
<input type="checkbox"/> emphasize quality over quantity	<input type="checkbox"/> resist conformity	<input type="checkbox"/> communicate ideas	<input type="checkbox"/> maintain their personal integrity

Appendix E

Questionnaire Information Sheet

Massey University

Department of Psychology

ORGANISATIONAL CULTURE AND VIRTUAL ORGANISATIONS

INFORMATION SHEET

Researchers:

Nicholas Young
Ph. 846 2856
nyoung@xtra.co.nz

DR Bernie Frey
Ph. 443 9363
b.f.frey@massey.ac.nz

Aim of the study:

There are many changes occurring in the business world at present. One of the responses to these changes is the emergence of new types of organisations such as the 'virtual organisation'. These new organisations have many unique features that make them quite different from the conventional form of organisation.

I think that these organisations will involve a mindset significantly different to that which is common today. The aim of this research is to explore the various elements (including work-related values, beliefs, attitudes, and assumptions) that comprise the mindsets of those people already working within such an organisation. In order to accomplish this, a 'cultural' perspective is taken in which interviews, document searches and questionnaires are combined in order to build a comprehensive description of the basic social processes present in a 'Virtual Organisation'

What will you have to do ?

You will have to answer one questionnaire that assesses your work-related values, attitudes, beliefs and assumptions.

How much time will be involved ?

It will take approximately half an hour to fill out the questionnaire. This can be done at a time that suits you.

What can you expect from the researcher ?

I will answer any questions you may have regarding the study.

If you take part in the study, you have the right to:

- (1) Refuse to answer any particular question, and to withdraw from the study at any time.
- (2) Provide information on the understanding that it is completely confidential to the researcher. All information is collected anonymously, and it will not be possible to identify you in any reports that are prepared from this study.
- (3) Be given access to a summary of the findings from the study when it is concluded

Appendix F

Questionnaire-response reminder email message

Hi, this is a message from your resident psychology student.

As you know I have recently sent organisational culture questionnaires to all NC members as part of the data collection for my Master's thesis. Thank you very much to those who have returned them. I am very appreciative of your cooperation, as I am well aware of the value of your time.

To those who have not yet found the time to respond, I would really appreciate it if you could do so soon. The value of the data gained from such a measure is largely contingent upon a high (preferably 100+) response rate. Furthermore, (yes there is some self interest at stake), my academic success is also dependent upon the quality of data my data set (-:

If you have not received a questionnaire, could you please let me know so that I can send you one?

Thank you,

Nicholas Young.

Appendix G

Internet questionnaire invitation email message

Hello again -

As you know I have sent an organisational culture questionnaire to all NC members recently. So far I have received 18 responses.....but yours is not one of them.

I realise that your time is precious, but in order to gain a useful measure it is desirable to obtain a 100+ percent response-rate if at all possible. I have now recreated the questionnaire in HTML format and put it on the Internet to make this a little easier:

<http://homepages.ihug.co.New Zealand/bnb/nick/oci.html>

If you could find the time to visit this site (or use the snail mail version) in the near future it would be very much appreciated.

Attached is the information sheet for the study.

Regards

Nicholas Young

Appendix H

Assessment of non-response bias email message

Greetings -

As you know I sent an organisational culture questionnaire to all members of NC as part of the research phase of my Masters degree. About half the members of NC returned the questionnaire. In the analysis of the data obtained from these questionnaires, it would be very useful to know why those who didn't respond, chose not to. If you could indicate your reason for not responding, it would be greatly appreciated. Of course your answer will be kept strictly anonymous in the write up.

Thanks

Nicholas Young

Appendix I: Summary perception questions

Role clarity

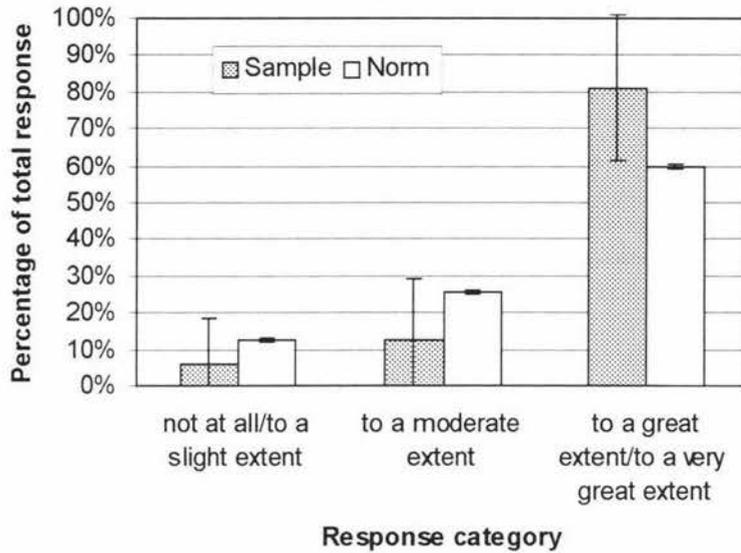


Figure 11. Percentage of total responses as a function of response category for summary perception question 1: To what extent do you know what is expected of you as a members of this organisation? with 95% confidence intervals indicated by the error bars.

Figure 11 shows the responses of the NC sample to summary perception question one. The confidence intervals clearly show that at the very least, the difference between the percentage of people in the sample who are clear about what is expected of them and those who are not, is at least 30%. Comparison to the normative data indicates that members of NC reported a greater understanding of what is expected of them by their organisation, than do people in other organisations. In the 'to a great extent/to a very great extent' response category, the two confidence intervals do not overlap, so it is safe to assume a significant difference does exist. In the other two response categories the confidence intervals do overlap so it is not possible to say with any certainty that a difference exists.

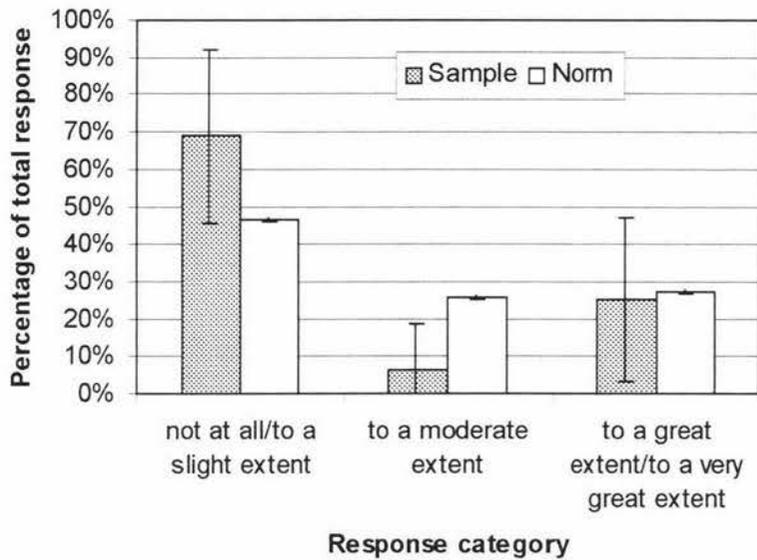


Figure 12. Percentage of total responses as a function of response category for summary perception question 2: To what extent do you receive inconsistent messages regarding what is expected? With 95% confidence intervals indicated by the error bars.

Figure 12 shows the responses of the NC sample to summary perception question two. The confidence intervals overlap so there is no difference at the 95% level of confidence. The overlap is however very slight so it is likely that there is a significant difference between the proportion of members who feel that they receive inconsistent messages and those who do not. Comparison to the normative data suggests a considerable difference between NC and the norm. The confidence intervals barely overlap in the not at all/to a slight extent category so it is likely that there is a tendency for NC members to receive

Person/Organisation fit

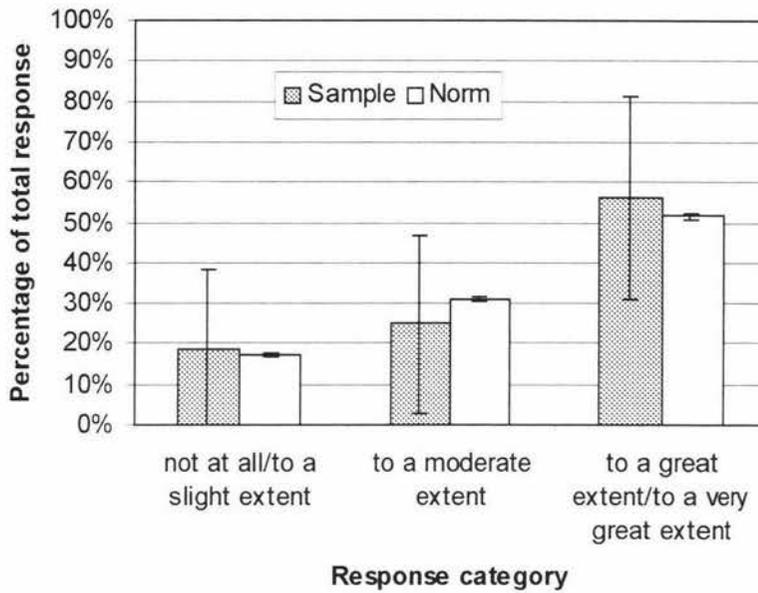


Figure 13. Percentage of total responses as a function of response category for summary perception question 3: Do you feel that you comfortable fit in as a member of this organisation? 95% confidence intervals are displayed by the error bars.

Figure 13 shows response of the NC sample to summary perception question three. The confidence intervals all overlap so the difference is not statistically significant at the 95% level of confidence. Comparison to the norm also suggests that there is no difference between the NC sample and the normative sample on this aspect of person/organisation fit. All the confidence intervals overlap totally.

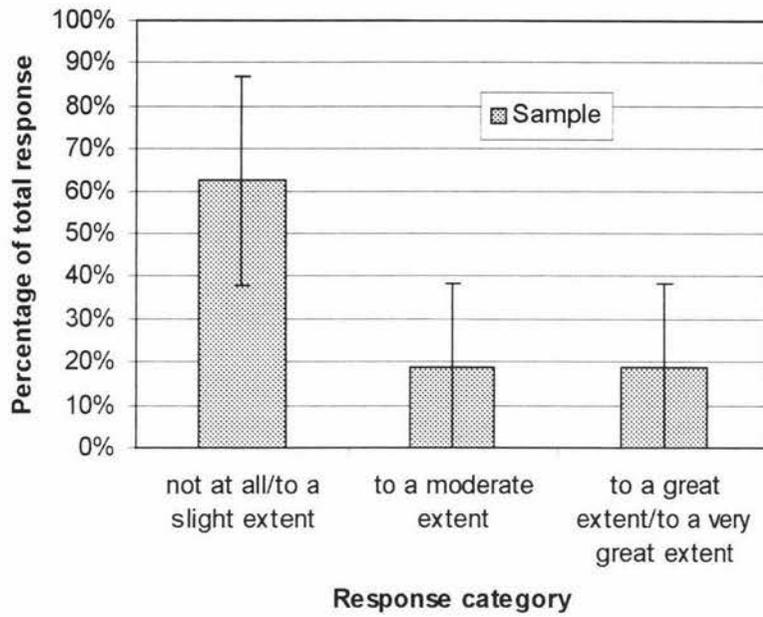


Figure 14. Percentage of total responses as a function of response category for summary perception question 3: Does your job require you to think and behave differently than would otherwise be the case?

Figure 14 shows the response of the NC sample to summary perception question four. The confidence intervals indicate that there is a significant difference between the proportion of members who feel that they have to act differently as a member of NC, and those who do not. There was no normative data available for this question.

Job satisfaction

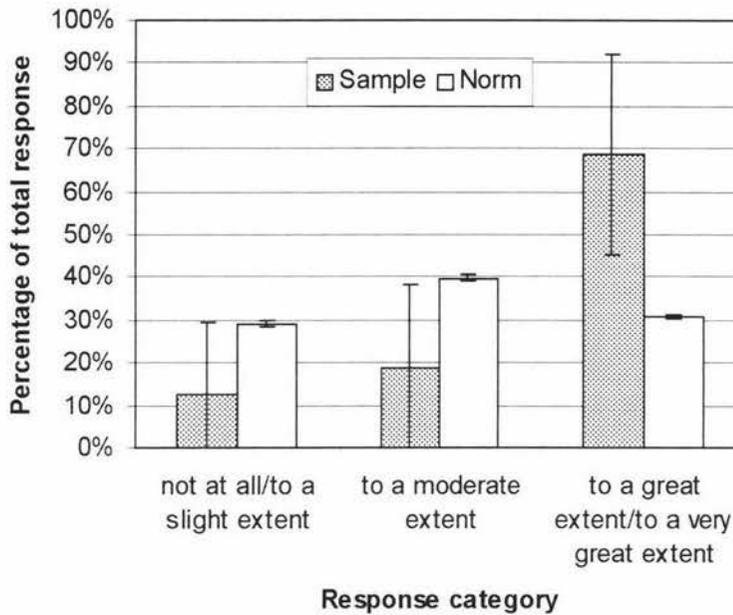


Figure 15. Percentage of total responses as a function of response category for summary perception question 4: Are you satisfied being a members of this organisation? 95% confidence intervals are shown by the error bars.

Figure 15 shows the response of the NC sample to summary perception question four. The 95% confidence interval constructed around the “to a great extent”/“to a very great extent” response category does not overlap those of the other two response categories. Consequently, we can say with 95% certainty, that there is a difference between the proportion of people in NC who are satisfied with the organisation and those who are not. The difference is at the very least 10%, and as much as 50%. Comparison to the norm indicates that there is a significant difference between the proportion of NC members who are satisfied with their organisation, and members in other organisations that feel the same way. None of the confidence intervals overlap within the three response categories. In terms of proportion of satisfied members, the difference between NC and the norm is at least 15%, and as much as 60%.

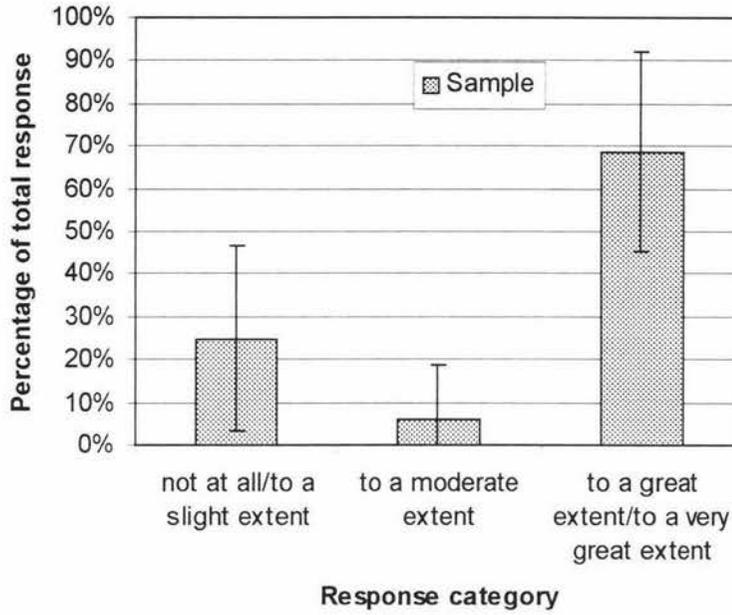


Figure 16. Percentage of responses as a function of response category for summary perception question 5: Do you expect to be with this organisation two years from now? 95% confidence intervals are shown by the error bars.

Figure 16 shows that in response to summary perception question five, 69% answered to a very great extent or to a great extent, 6% answered to a moderate extent, and 25% answered to a slight extent, or not at all. The confidence intervals barely overlap so it is likely that there is a significant difference between the proportion of people in NC who intend to stay and those who do not. There was no normative data available.

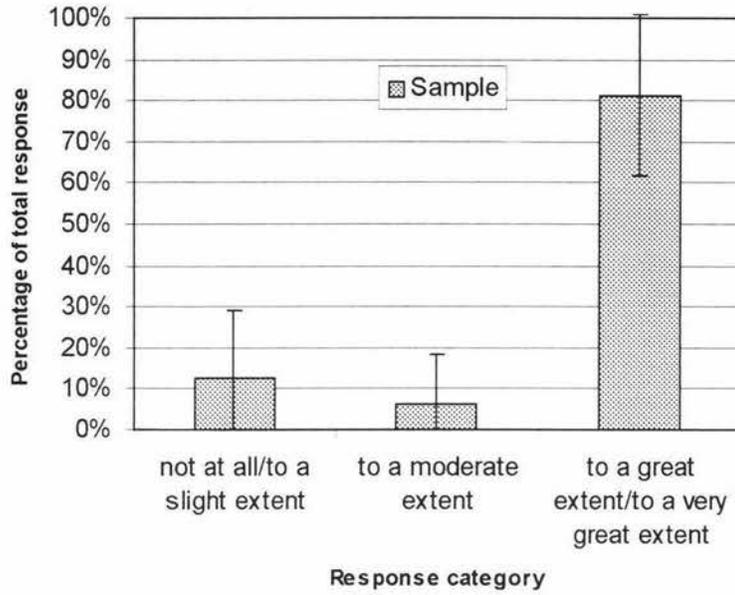


Figure 17. Percentage of total response as a function of response category for summary perception question 7: 'Would you recommend this organisation to someone like yourself as a good place to work?' 95% confidence intervals are shown by the error bars.

Figure 17 shows that in response to summary perception question 7, 81% of the NC sample answered to a very great extent or to a great extent, 6% answered to a moderate extent and 13% answered to a slight extent or not at all. The confidence intervals do not overlap so, with a 95% level of certainty, we can say that the difference between the proportion of those who would recommend NC as a good place to work and those who would not, is at least 30% and as much as 70%. There was no normative data available.