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**SUSTAINING KNOWLEDGE CREATION WITHIN  
KNOWLEDGE INTENSIVE FIRMS**

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**Thesis submitted for Degree of PhD**

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**May 1999**

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## **Acknowledgements**

This thesis is dedicated to my father Edward Robertson who died on 16<sup>th</sup> March, 1997 aged 73 years. His love and quiet confidence in me provided the courage to start and the will to finish.

I would like to thank the following people for their help and support throughout the past four years.

Dr Jacky Swan and Professor Harry Scarbrough for not only being wonderful, insightful supervisors but also very close and dear friends. Dr Carsten Sorensen, my partner; Jessica and Hannah, my daughters and my mother Doll for their care, patience and unwavering emotional support. The Founders of Universal Consulting and Paramount Consulting for allowing me to conduct this research in their firms. Dr David Morris, Dean of Coventry Business School for providing me with the most precious of resources – time. Finally, colleagues and friends including in particular Geraldine Hammersley, Valda Henry, Chris Land, Val Leyland, Jenny Maynard, Sheila Moore, and Sue Newell. These people not only offered important practical support in many instances but also showed genuine kindness and interest in this work. Finally, thanks must also go to Leo for being at my feet, a constant companion throughout months of long and solitary writing.

## **Declaration**

Sections of Chapters 4 and 5 have been published in

Robertson, M. & Swan, J. (1998). Modes of organizing in an expert consultancy: A case study of knowledge, power and egos, *Organization*, 5,4, 520-543.

The sections used in this thesis were the author's own work.

## Summary

This thesis is concerned with understanding the way in which knowledge creation was sustained over time within a particular type of knowledge intensive firm referred to as an expert consultancy. Expert consultancies are differentiated from generalist management consultancies in terms of their knowledge intensity i.e. the high levels of expertise of the workforce and their focus on the development of highly customised creative and innovative solutions rather than on the diffusion and implementation of pre-packaged 'best practice' solutions. Two longitudinal case studies were conducted in expert consultancies and a critical interpretative approach, characteristic of the constructivist paradigm was adopted for their analysis. Processes of knowledge creation are intrinsically complex and unpredictable. The leaders of such firms then are perpetually seeking ways to manage the fundamental tensions that exist between autonomy and control and efficiency and uncertainty.

A retrospective historical analysis was developed of the way in which knowledge creation occurred and the organisational conditions that served to shape the process over time within both firms. The organisational conditions that were considered included not only structural aspects of the firm but also cultural and social conditions. Any changes that had occurred over time with regard to the way in which knowledge creation occurred were considered in relation to the organisational conditions that may have stimulated such changes in order to develop this analysis. The research found that a number of distinctive structural conditions contributed to sustaining processes of knowledge creation over time, including profit satisficing behaviour, an absence of professional management, and a resource rich environment. Critically, a strong yet ambiguous culture was found to be important for sustaining processes of knowledge creation. Organisational ambiguity promoted quasi-normative control, regulating individuals' dual identities as both 'consultant' and 'expert'. Quasi-normative control promoted both creative and self-disciplining behaviour such that processes of knowledge creation occurred in ways that were ultimately efficient for the firm. These findings represent a new contribution to knowledge with regards to organisational culture and the management of knowledge workers and will hopefully stimulate further research in this area.

## **Chapter 1 Introduction**

Interest in knowledge and the emergence of a knowledge-based society has increased dramatically in recent years. Early work by Bell (1973) described the potential for the development of a post- industrial society dominated by knowledge workers operating in knowledge-intensive firms (KIFs). It would be a society organised around knowledge for the purpose of economic development, social control and institutional innovation and change (Blackler et al, 1992). This early work was followed by research in the late eighties and early nineties that focused not only on broad macro trends but also on the particular characteristics of knowledge workers and KIFs (c.f. Sveiby and Lloyd, 1987; Reich, 1991,Starbuck, 1992; Alvesson, 1992, 1993; Drucker, 1993). More recently, the debate has been extended to focus on the management of knowledge and intellectual capital more generally (Castells, 1996, Prusak, 1997). Thus interest in knowledge and knowledge work is burgeoning as we progress towards a new millenium. Consultants and consultancy work are considered to be representative examples of knowledge workers and knowledge work and the research presented here aims to contribute to this field by focusing on the ways in which consultants are managed, organise and work internally on client projects. In the following section, a summary analysis of existing research in this field is outlined in order to explore the gaps that exist currently within the literature.

### **1.1. A Summary of the existing literature on the consultancy sector**

Researchers such as Kipping (1996) and Clark (1995) have highlighted the fact that the management consultancy industry was one of the fastest growing sectors in the UK economy in the late 1980's and early 1990's, expanding by over 200 per cent between 1985 and 1992. This growth has continued unabated into the late 1990s. It is however, extremely difficult to accurately assess the size of the consultancy sector for a number of reasons :

- First, there is no general agreement on where the boundaries of consultancy activity end. For example, some definitions do not include organisational outsourcing activity which according to members of the Management Consultancies Association (MCA) in the UK, was one of the fastest growing markets (@38%) in 1997 (Morrison, 1998).

Second,

- there are a significant numbers of very small consultancy firms operating in the sector
- the levels of turbulence (births and deaths) within the sector are high. (Keeble et al., 1994). (This comment aside, current statistics suggest that the consultancy sector comprises an important and substantive industry sector, particularly in the UK).

In 1990 the UK management consultancy industry comprised 11,777 firms with a combined turnover of slightly over £2.5 billion (Keeble et al ,1994). The sector grew to slightly over 40,000 in 1997 when all sole practitioners were taken into account and the market was estimated to be worth £6.33 billion in this year including outsourcing activities. Within Europe the UK consultancy market represented 18% of the total European market in 1996 based on the European Federation of Management Consultancy Associations (FEACO) statistics and was estimated to have increased to 20% in 1998 in a European market worth approximately £45 billion. Growth in the market in the UK during the first half of 1998 was estimated at running at an annualised rate of approximately 14-15%. Whilst this growth rate is forecast to diminish over the next 5 years to around 6%, the size, value and hence importance of this sector in the UK cannot be underestimated. This rapid expansion of the UK sector has been matched and surpassed in other countries (Morrison, 1998). This has led to increasing interests by academic researchers in establishing what it is that consultants actually do to allow for such increases in the size of this sector in such a relatively short time period.

Clark (1995) states that the expansion in the consultancy sector was generated in response to the demand placed on the industry by client organisations. Organisations were faced with an increasingly competitive environment during the 80's and 90's which demanded fast response in terms of new products and new market opportunities. Thus, fundamentally firms were faced with a need to change and organise along different lines, in order to be better able to respond to their own markets. Lacking, the required skills and expertise in many instances, to manage change effectively, many firms decided to engage management consultancy firms to support them in the change process.

This trend has continued during the 1990's, together with significant delayering of management levels in many firms. In some instances, delayering has occurred as a result of the introduction of concepts such as Business Process Reengineering (BPR), an approach to organising and the design of work processes that was actually created and marketed by the consultancy industry (Hammer & Champney, 1993). In many organisations this delayering has led to the emergence of significant skills gaps, not only in areas such as the management of change as suggested by Clark (1995), but also in more fundamental areas of the business (Morrison, 1998). Many organisations today then, are also using consultants as a bought-in source of expertise and knowledge, which is lacking from the current organisational structure, as a result of delayering. For example, some firms, eg. Esselte – a world leader in electronic security tagging systems, rather than maintaining a permanent, relatively costly, R&D facility, prefer to buy in these services, as and when they perceive the need to develop new products or services.

Some sectors e.g. the legal and financial sectors, have only recently experienced increased competition in their markets and are only now in the 1990s recognising a need to develop new strategies to maintain and improve competitiveness. Even in the consultancy sector itself, the pressures to become global and increase in size are becoming more apparent (Economist, 1997). Firms within the legal and financial sectors, which in many cases are

characterised by professional bodies of knowledge, recognise a need for strategy development and change but are also aware that the professionals they employ do not have the necessary expertise to conduct such work (Morrison, 1998). Thus the demand for consultancy services across all sectors has continued to grow.

Much of the existing research on consultants and consultancy work to date however has over generalised in two fundamental respects. Firstly, existing research has tended to assume a significant degree of homogeneity within the sector. In addition, the majority of this literature has assumed consultancy work to be primarily about the codifying, objectifying and (re) packaging of ideas (e.g. BPR; 'World Class Manufacturing') and the manipulation of knowledge flows so that firms in industry accept particular solutions as legitimate forms of 'best practice'. Consultancies, then, are considered to play an important role as 'fashion setters' who create powerful rhetorics about the latest management practice (Abrahamson, 1996). Thus the focus then in much of the existing literature on consultancies has been mainly concerned with their role in the diffusion and implementation of generic 'best practice' solutions such as BPR etc.

These generalisations fail to acknowledge the heterogeneity within the consultancy sector and importantly, largely ignore those consultancy firms that focus on knowledge *creation* as their major service to clients, rather than on the diffusion and implementation of 'best practice'. Processes of knowledge creation are characterised by social interaction amongst organisational members, leading to the reconfiguration, integration and synthesis of knowledge and expertise that is manifest in inventions and innovations. This distinction between invention and innovation was made by Starbuck (1992). He suggests that the development of inventions is reliant primarily upon the synthesis and integration of original data, *creating* completely new knowledge. Whilst the development of innovations is reliant more upon the application and reconfiguration of *existing* knowledge in new ways. Starbuck acknowledges however, that 'the distinction between creating new

knowledge and applying it is often hard to make” (1992:722). Other writers refer more generally to knowledge creation as organisational processes of innovation and organisational creativity (Kanter, 1988; Leonard and Sensiper, 1998). It is debatable then whether it is necessary to differentiate between processes of invention and innovation. In this research the term ‘knowledge creation’ will be used generically to imply both processes of invention and innovation.

Thus there are significant gaps in the existing literature that need to be addressed if we are to further our understanding of consultancy work and knowledge work more generally. Existing literature has then only drawn a major distinction between the ‘Big 5’ consultancy multi-nationals (Andersen’s, KPMG, Price Waterhouse Coopers, Deloitte Touche and Ernst & Young) originating from accountancy practices, together with several other large US based consultancy firms (including McKinsey; Bain; Arthur D. Little; Boston Consulting Group), and the ‘rest’. The ‘rest’ of the consultancy sector in the UK, comprises of almost forty thousand small and medium sized consultancy firms. These firms represent just over half of the earnings in the sector (Morrison, 1998) and, as such, constitute and contribute significantly to the sector as a whole.

The crude distinction in the existing literature between the large, global consultancy firms and the rest, together with generic definitions such as ‘knowledge-intensive’ and ‘professional service’, fail to recognise the immense heterogeneity within the consultancy sector. Many small and medium sized consultancy firms strive to differentiate themselves from the ‘rest’ by means of the markets they serve or the specialised services they offer. The lack of distinction across the sector is notable in the existing literature as consultancy firms are generally ‘lumped together’ and referred to as either knowledge-intensive firms (KIFs) (Starbuck, 1992; Alvesson, 1993; Blackler, 1993) or professional service firms (PSFs) (Keeble et al., 1992; Maister, 1993; Lowendahl, 1997). The literature focusing on KIFs does acknowledge consultants’ role in innovation but tends to be generalist in nature.

For example, Starbuck (1992) discusses barriers to learning within knowledge-intensive firms and suggests that these barriers exist in all but 'peculiar' KIFs. What is meant by the term 'peculiar' however, is not explored. The literature referring to consultancies as PSFs also tends to be generalist. It tends to focus on the social skills and expertise of the consultants with regard to managing the consultant / client relationship, rather than on the organisational conditions that shape the actual process whereby solutions are developed to client problems. Importantly, processes of knowledge creation are likely to be qualitatively different in small specialist consultancies as against general management consultancies. Existing research then primarily considers an understanding of the nature of the consultant / client interaction to be fundamental to analysing consultancy work (see Jackall, 1988; Bloomfield and Best, 1992; Gill and Whittle, 1992; Alvesson, 1993; Oakley, 1993; Legge, 1994; Bloomfield and Danieli, 1995; Abrahamson, 1991, 1996; Clark, 1995; Sturdy, 1997). What all of these authors emphasise in their work, is that consultancy work is fundamentally concerned with managing impressions (Clark, 1995). Impressions of the consultant and the service that they have to offer these authors argue, is more important than the service itself. Consultancy discourse around knowledge then is largely considered to be rhetorical. Clark states "the key to consultancy success lies more in the *consultancy activity as a process of construction of meaning and impression management* than in the mastery of any esoteric theory that might underlie it" (1995:93, emphasis, authors own). Oakley (1993) also suggests, that consultants rely on craft skills embedded in systematic, reflective understanding (of complex interrelationships), in order to *persuade* clients of their authority and expertise. Alvesson (1993) and Legge (1994) take up this theme and discuss management consultancies as 'systems of persuasion' (Legge, 1994:6), where claims to knowledge are more important than knowledge itself. Legge (1994) refers to consultants as 'telling a strong story', and Czarniawska-Joerges (1990) refers to consultants as 'merchants of meaning'. The emphases in all of this work is on the inherent

ambiguity of knowledge per se and the rhetorical strategies, language and social skills used by consultants, to define the nature of the service offered, and persuade clients of the quality of the service they are providing.

Alvesson (1993) draws on the work of Meyer & Rowan (1977) and neo-institutionalist theory, to develop an understanding of the strategies adopted by management consultants when convincing clients of their potential value to the client organisation. Alvesson suggests that knowledge and knowledge-intensity, rather than being objectively defined, are better understood as socially constructed. In the case, then, of management consultancies, the role of consultants is to develop institutionalised products, services and techniques which client organisations will adopt in their quest to be perceived as legitimate within their sectors. Clients want to be seen to be adopting these 'best practice' solutions, although sometimes little consideration is given to efficiency criteria. From this perspective, Alvesson suggests consultancies are in the business then of providing *rationality surrogates* to organisations and their primary task "is to offer products and services to other organisations so that these conform to the institutionalised expectations of their environments" (1993:1004). Abrahamson (1996) and Keiser (1997) also use neo-institutionalist theory to explain at a macro level the diffusion of management fads and fashions by consultants to client organisations, in and across particular industry sectors. Alvesson suggests that formal knowledge is only a very limited element in the work of management consultants. Management consultants' role is to provide institutionalised myths to clients who themselves are involved in an unending quest for symbols of rationality. Much of their work then requires sophisticated social skills, adapting to different contexts and tasks quickly and effectively, rather than applying specialist expertise to particular organisational problems. Thus people skills, he argues, are possibly more important than formal, technical knowledge and expertise in a consultancy

organisation. "Being perceived as an expert is then more crucial than being one"

(Alvesson, 1993:1004).

Alvesson goes on to suggest that many management consultancies actually produce goods which are not only intangible but also inherently ambiguous. Whether the client believes the work to have resulted in a successful outcome is very much reliant on the subjective judgements of the client, which are unlikely to be consistent over time or across clients.

Consultancies thus organise around rhetoric, "rhetoric then, is not just external to the core...but in a way *is* its core"(Alvesson, *op. cit.* p. 1007).

Levitt (1981) supports this idea although he does acknowledge that when marketing their services there are some events, such as R&D, that start as intangible and become tangible.

In defining the process for marketing intangible services. Levitt suggests "When prospective clients can't properly try the product in advance, metaphorical reassurances become the amplified necessity of the marketing effort. Promises being intangible have to be made perceptible in their presentation"(1981:97). Clients, it is argued, have to use appearances to make judgements about realities. In the case of a management consultancy, the less tangible the product or service, for example concepts such as Total Quality Management (TQM) and BPR, the more powerfully and persistently the judgement about it gets shaped by the packaging. The knowledge of the consultant in this case is knowledge regarding the optimal way to present the solution, so as to convince the client of its legitimacy. In the case of process consultancy particularly "The client usually doesn't know what they're getting until they don't get it" (Levitt, *op.cit.* p.100).

Levitt then supports Alvesson's argument that, in the long term, management consultants if they are going to be successful and develop lasting relationships with clients, are more reliant on social rather than technical skills, which persuade the client of the utility and quality of the service being offered. In support of this argument Clark (1995) highlights the

importance of the dramaturgical metaphor, in developing an understanding of management consultancy work.

Other researchers have suggested that consultancy work is about a blending of social *and* technical skills and expertise (Bloomfield and Danieli, 1995). In their analysis of the introduction of an IT system in an hospital environment, Bloomfield and Danieli suggested that consultants could be perceived as ‘obligatory passage points’ through which the client gained an understanding of the work of the consultant and the consultant mediated between different interest groups involved in the project. The emphasis in this study focused more on the consultants’ social and political skills, rather than the technical expertise and knowledge of the consultant per se.

Research to date then has tended to focus on aspects of work and organising within the large, multi-national consultancy firms related to:

- the way consultancies create rhetorics and diffuse ideas to populations of clients (c.f. Abrahamson, 1996; Keiser, 1997)
- the implementation of consultancy ‘best practice’ solutions into client firms (c.f. Bloomfield & Danieli, 1995; Oakley, 1993; Clark, 1995).

Existing literature has tended not to address those small and medium sized firms that represent a significant proportion of the consultancy sector. Some of these firms direct all of their efforts internally, to developing bespoke products, services and solutions for clients, focusing solely on processes of knowledge creation. These firms are important to focus upon as they may inform our understanding of how knowledge in firms is actually created, by considering those whose business depends upon it. This lack of focus on knowledge creation, a significant aspect of some consultancy work, highlights the limited nature of much of the existing literature in this area.

The research presented here will focus on two consultancy firms, which differentiate themselves from their competitors by their focus on *knowledge creation*, rather than

*knowledge diffusion or implementation*, as the major service offered to clients. This is one of their major distinguishing features. This distinction emphasises that these firms are qualitatively different from generalist management consultancies and are referred to here as 'expert' consultancies. Expert consultancy firms are generally small and medium sized firms, which base their competitive advantage on their ability to develop highly customised, one-off solutions for clients. These firms consciously resist isomorphic pressures to conform to more generalist management consultancies within the sector, and diffuse 'best practice' solutions. Their basis for survival and growth in the sector is dependent then on their ability to *continually* sustain processes of knowledge creation. These firms play an important role in processes of knowledge creation and innovation broadly across sectors and countries and are therefore worthy of further attention in the literature. The distinguishing features of expert consultancy firms are considered further in the following section.

## **1.2 Differentiating between management and expert consultancy firms**

Expert consultancy firms are qualitatively different from generalist management consultancy firms in a number of ways. Schein's (1969) classification distinguished between three types of consultancy, premised on the role of the consultant and client and the type of service required. Schein differentiated between the purchase of expertise, doctor-patient and process models of consultancy. An extension of this model was developed by Margulies and Raia (1972) in order to locate the consultant's role along a continuum, ranging from task to process orientation. Task orientation implies that the consultant is an expert, developing and implementing solutions to identifiable problems *for* the client. Process orientation, the other extreme, locates the consultant as a process facilitator working *with* the client in order to improve problem solving processes within the organisation. Other classifications also tend to fall into one of these two types. Consultants are classified according to a particular discrete type, for example teacher, advocate and

barbarian types were just some identified by Steele (1975). Nees and Greiner (1985) also use discrete types including 'mental adventurers' and 'systems architects'. Alternatively, consultants are classified by particular approaches that can be located along a continuum of styles. For example, Ganesh (1978) refers to consultants displaying human or systematic relations orientations and Lippitt and Lippitt (1979) refer to directive and non-directive consultancy approaches.

Clark suggests that these existing classifications "seek to highlight and reinforce professional status and professional autonomy, as well as assuming a major and acknowledged body of specialist knowledge" (1995:89). This he argues is unhelpful because the work of management consultants is qualitatively different to that of the professional. Whilst this may be so for the types of consultants on which Clark's research is based (executive search consultants and management gurus), the work of expert consultancies does appear to fundamentally reflect the type of work conducted by professionals. Hence existing classifications do have potential utility here when defining expert consultancies. For example, expert consultancies do reflect both the purchase of expertise and process models of consultancy, identified by Schein (1969). Some expert consultancies develop completely new products and processes for clients. This reflects the purchase of expertise model. Other expert consultancies, develop innovative solutions in areas such as strategy and organisational development with clients. This approach reflects a process model of consultancy. Marguilies and Raia's (1972) schema is also applicable in that expert consultants can have a task and / or process orientation. Most significantly however, expert consultancies do rely on institutionalised, professional bodies of knowledge in their work (knowledge creation), regardless of their particular orientation. These consultancies only employ individuals with very significant levels of expertise in areas represented by science, law, finance etc. Their reliance on professional bodies of

knowledge and expertise is also their primary means of differentiating themselves within their markets.

A transparent distinguishing feature then of expert consultancy firms is their knowledge-intensity. Starbuck (1992) claims that one criterion for a knowledge-intensive firm is it must consist of at least one-third experts. An expert is defined as someone with a formal education and experience equivalent to a doctoral degree. How relevant this measure of knowledge intensity is to generalist management consultancy firms is questionable.

General management consultancies as discussed previously, deal mainly with the diffusion and implementation of widely applicable, standardised and generic solutions. It is arguable whether these kinds of consultancies are always, or even need to be, 'knowledge intensive'. For example, they rely more heavily on knowledge being broadly based and embedded in standard systems and procedures than on exceptional or rare expertise within the firm. Rather than employing individuals with at least a doctoral level of education or equivalent, many of the large generalist management consultancy firms employ individuals straight from university with a first degree who are then trained to develop standardised repertoires of consulting skills ('best practice' templates) and practices. Management consultancies do employ people with expert knowledge for certain types of work. For example, in order to diffuse 'best practice' solutions to clients, these firms have to firstly develop 'best practice', which necessitates knowledge creation. However more generally, these firms are typically interested in recruiting a majority of high-flying graduates, across a multitude of disciplines that will be taught standard, codified approaches to the resolution of client problems. Thus, their knowledge-intensity according to Starbuck's definition, is debatable.

Expert consultancies however, are intrinsically 'knowledge intensive'. In an expert consultancy, the vast majority, or indeed all of the consultants employed, are experts in particular scientific or professional disciplines e.g. legal, scientific or financial. More

importantly, the service expert consultancies provide relies upon knowledge creation, rather than knowledge diffusion or implementation. Where an expert consultancy has a task focus, then the firm relies on specialist bodies of knowledge in order to develop bespoke, rather than 'best practice', solutions for the client. Where an expert consultancy has a process focus, then the firm develops a bespoke solution *with* the client. However, again this joint process is reliant on the integration and application of consultants' expertise and professional bodies of knowledge in novel ways. Expert consultancies with a process focus tend to work in areas such as strategy development, organisational development and the management of change within other knowledge-intensive sectors e.g. hi-tech laboratories, the legal, finance and creative (advertising and public relations) sectors. Some expert consultancies even provide services to other consultancies (Morrison, 1998).

Thus to summarise, much of the existing body of literature has failed to fully address the differentiation that exists within the consultancy sector. The focus has primarily been on management consultancies role in the diffusion and implementation phases of the innovation process, as opposed to expert consultancies role in knowledge creation within the innovation process. The existing literature has tended only to consider the role of large, global management consultancies and has adopted a fundamentally neo-institutionalist perspective (Meyer & Rowan, 1977) whereby consultancy firms and client firms alike are considered to compete in their respective markets, by keeping up with or mimicking the actions of other consultancy and client firms, respectively (Abrahamson, 1996). The empirical research presented in the following chapters, focuses on the way in which processes of knowledge creation are sustained over time within expert consultancies, acknowledging that within these types of firm there are inherent tensions surrounding experts demands for autonomy and management's need to efficiently control the firm

(Scarbrough, 1996, 1999). This important aspect of consultancy work has to date received insufficient attention in the literature.

### **1.3 Mode of analysis**

In addressing the way processes of knowledge creation are sustained, a temporal analysis of each case study firm will be presented, highlighting significant events, structural or contextual developments which are considered to have had an influence on processes of knowledge creation. This analytical approach has also been absent within much of the existing literature on consultancy work. Previous research has, on the whole, taken a snapshot in time of what occurs during the consultancy process. For example, survey data has been used in order to establish what occurs during consultancy projects and client perception of the consultancy process (Oakley, 1993; Clark, 1995), and other research has analysed discrete consultancy projects (Bloomfield & Danieli, 1995). A notable exception to this is more recent empirical research by Alvesson (1995) which provides a substantive, interpretative account of the way in which a Swedish software consultancy firm was organised and managed. This research highlighted some of the particular organisational issues that emerged and needed to be addressed by those attempting to lead and manage a knowledge-intensive firm over time. This research here, intends to extend Alvesson's work by considering consultancies that do not have an IT focus but do rely on specialist bodies of knowledge (scientific and legal) when developing client solutions. Other than this, there are very few empirical accounts of the way in which consultants work, organise and are managed over time. In many respects then this research is entirely novel in terms of the focus and the approach adopted. This has implications for the literature review presented in Chapter 2. Because of the lack of in-depth analysis of similar firms, the literature review starts broadly and then focuses in on particular structural, cultural and social conditions that might shape processes of knowledge creation.

## **1.4 Research aims and objectives**

The primary aim of this research then is understand the way in which expert consultancies sustain knowledge creation processes over time.

The main objective of this research then is:

To provide a retrospective analysis of the structural, cultural and social development of each case study firm, considering those organisational conditions that have shaped processes of knowledge creation over time. In so doing, to contribute to the conceptual development of theory in the field of knowledge creation, knowledge work and the management of knowledge workers.

A subsidiary objectives is :

To characterise and map the ways in which processes of knowledge creation have occurred and changed over time in two case study firms.

## **1.5 An introduction to the case firms**

Two case studies were conducted and both case study firms wished to be anonymised within the research. Universal Consulting is the pseudonym used for the first case study firm. Universal is an expert consultancy focusing primarily on the development of new products and processes for client firms across industrial sectors and markets throughout the world. The firm was founded in 1986 by one individual employing initially only a 'handful' of expert consultants. At the time of the research (which was conducted over a two year period between 1996 and 1997), there were approximately 140 experts working as consultants at Universal based in the Cambridge area of the UK.

Paramount Consulting is the pseudonym used for the second case study firm. Paramount is an expert consultancy, focusing on supporting professional service firms (primarily legal and accountancy firms) with strategy development on a global basis. The firm was founded in 1990 as a partnership. In 1995 the partnership was dissolved and the firm is now a limited company led by one of the original Founders. At the time of the research in 1998,

the firm employed 9 other expert consultants and 8 support staff. The firm is located in central London.

(A more complete description of the case firms and justification for their selection will be presented in Chapter 3 – Methodology).

## **1.6 Conclusion**

To date then expert consultancies have received scant attention in the literature where the focus has mainly been on consultants' role in the diffusion and implementation of 'best practice' concepts and solutions and on consultant / client relationships. By analysing the critical contextual conditions which serve to sustain processes of knowledge creation within expert consultancy firms, this research may also further our understanding of some of the organisational conditions required to facilitate processes of knowledge creation more generally.

The following chapter (Chapter 2) begins with a review and critique of the literature that has sought to classify knowledge and processes of knowledge creation. This literature will be used in later chapters to analyse and map the way processes of knowledge creation may have changed over time within the case study firms. This chapter will draw upon research and literature within organisational theory and strategic management which has sought to highlight the structural conditions that serve to facilitate or constrain processes of knowledge creation. Because there is so little established work in this area specifically, it is necessary to draw upon and infer from broader organisational theory and strategic management literature with regard to some of the cultural and social conditions that might shape processes of knowledge creation. Thus additional literature and research on culture, power and trust will be explored in order to consider the potential role of these more deeply embedded organisational phenomena on processes of knowledge creation. Unlike some other doctoral research, there is not a clearly bounded established body of work to

draw upon and the research base is fragmented and eclectic. Therefore one contribution of this research is to draw this work together.

Chapter 3 will discuss the methodological approach adopted in this empirical research and justify the selection of the case study firms. Chapter 4 will present a detailed description of the first case study firm - Universal Consulting. The analysis here will be structured according to existing literature that has sought to consider the structural conditions that promote or constrain organisational processes of knowledge creation. Chapter 5 will develop the analysis of the Universal case highlighting the potential role of cultural and social conditions in organisational processes of knowledge creation. Chapters 6 and 7 will present and analyse the Paramount Consulting case study in the same way. Chapter 8 will present and discuss the major findings from this empirical research. Conceptual developments to existing theories on knowledge creation, knowledge work and the management of knowledge workers will be proposed in this chapter. This chapter will conclude by summarising the limitations of this research and the applicability of these findings to other organisational contexts more generally. To conclude consideration will be given to future research directions that may extend the field of research on knowledge work and the management of KIFs.

## **Chapter 2 Existing Literature and Theory**

### **Introduction**

In this chapter, an extensive range of literature from organisational theory and strategic management is presented and critiqued in order to focus in on and explore the organisational conditions that researchers consider may facilitate or constrain processes of knowledge creation. Section 2.1 presents and summarises contemporary debates on the nature of knowledge. The literature that seeks to classify and understand modes of knowledge communication and dominant knowledge types within organisations is also summarised here. Using the various taxonomies and schema proposed in this body of literature, the way in which different types of knowledge combine to create new knowledge will be discussed. This analysis will be used to map the way in which processes of knowledge creation have occurred over time within the two case study firms. Research that has focused on the structural conditions considered to influence processes of knowledge creation are discussed in section 2.2 through to 2.7. This part of the literature review concludes with a summary of those structural conditions that might be considered to facilitate or constrain processes of knowledge creation within the context of an expert consultancy.

In section 2.8 the potential role of organisational culture in processes of knowledge creation is discussed. Section 2.8.1 focuses on the literature that has considered the generic influence of organisational culture. Organisational culture is widely considered to influence individual and collective behaviour; organisational performance; modes of organising and organisational processes of innovation. However, there is still considerable debate about the extent to which culture can be considered a determinant, outcome or is even separable from these organisational conditions. Moreover, at a more fundamental level there still exist definitional problems in the literature associated with the concept of

organisational culture. These issues will be discussed in section 2.8.2 (a discussion of the problematic nature of conducting cultural research and the approach that was used is presented in Chapter 3, section 3.4.1) In section 2.8.3 a review of the literature pertaining to cultural studies and modes of cultural analysis is presented. There is particular reference in this section to the potential explanatory power of different perspectives on understanding the potentially mutually reinforcing relationship between organisational culture and processes of knowledge creation. In section 2.8.4 a framework for structuring the cultural analysis is presented and its potential empirical utility for analysing organisational culture within expert consultancies is considered.

In section 2.9 literature that considers the role of the nature of intra-organisational relations on processes of knowledge creation is discussed. In sub section 2.9.1 the potential influence of power is considered and in section 2.9.2 the potential influence of trust relations on processes of knowledge creation are considered. Power and trust have been considered by virtue of the fact that these are major areas implicated in studies of knowledge creation within organisational theory. Section 2.10 concludes this chapter summarising the way in which this body of literature will be used in the empirical analysis.

## **2.1 Knowledge – an epistemology and related literature**

The term ‘knowledge’ has been used freely up to this point, in order to define and clarify the nature of the research presented here. However, it is evident from philosophical debates within the literature that ‘knowledge’ is an intrinsically ambiguous and equivocal term. In the following sub-sections several taxonomies that seek to classify knowledge will be discussed. These taxonomies will be considered in conjunction with the literature that focuses on organisational processes of knowledge creation and innovation. This literature and discussion will provide the theoretical underpinnings for the analysis and mapping of processes of knowledge creation as they have changed over time.

### **2.1.1 Information and knowledge**

Before considering the nature of knowledge, it is pertinent to discuss some of the distinctions made in the literature between information and knowledge. Nonaka (1994) emphasises that it is the semantic aspects of information that create knowledge, i.e. it is the way in which information is conveyed and the meaning that the individual implies from the information that creates knowledge. This assertion is supported by Machlup (1983) and Dretske (1981). What an individual implies from information is related to their cognitive capacity and interpretive schema. It is intelligence which “encompasses both the creation and processing of data, as well as its interpretation or meaning” (Spender, 1996:65). Thus, it is reasonable to assert that different people may imply different things from the same information, creating new and different knowledge. It is evident then that information and knowledge are distinguishable and information, whilst heavily context dependent, contributes to the creation of knowledge and vice versa.

### **2.1.2 The existing literature that seeks to define and classify knowledge**

Definitions and debates about the nature of knowledge have appeared in philosophical literature since the classical Greek period (c.f. Plato’s ‘Theaetetus and Phaedo’). However, in this research the focus is on more contemporary debates and definitions regarding the nature of knowledge, cited in the organisational theory literature. It is interesting to note however, that most contemporary theorists in this field do refer to Polanyi (1962) and his definition of knowledge does actually have its grounding in Plato’s original work.

Polanyi (1962, 1966) then is widely cited within the organisational theory literature, for he highlighted a crucial distinction between tacit (know-how) and explicit (know what) knowledge and defined knowledge generically as ‘justified true belief’ (Polanyi, 1962:4). This is an individual, cognitive definition that does not translate well to the organisational unit of analysis for, as Dretske (1981) has argued, beliefs may be false and the truth may not be believed. Furthermore, an individual could be provided with full justification for

something and still choose not to believe. Nonaka (1994) stresses then that truthfulness can only be judged in relation to personal or individual belief and that the emphasis should be on the justification of knowledge within an organisational context. In emphasising these points, attention is drawn to the highly contextual, situated nature of knowledge which needs to be taken into account when considering processes of knowledge creation within an organisation, involving many individuals.

More recently, Spender (1996) provides a definition of knowledge that deemphasise processes of thinking and emphasises context. "Knowledge comprises theoretical statements whose meanings and practical implications depend on their use and on the framework in which they are deployed...These days knowledge is less about truth and reason and more about the practice of intervening knowledgeably and purposefully in the world" (Spender, 1996:64). Spender here avoids the notion of truth and defines knowledge in dynamic terms, regarding it as a practice (of doing or knowing) rather than something static or objective. This highlights the importance of knowing in relation to knowledge. It was Polanyi (1962) who originally made this assertion. Several other authors have subsequently suggested that the process of knowing is as important as knowledge itself because a substantial part of an individuals' tacit knowledge will always remains tacit, resistant to articulation or codification, existing only as conscious experience and behaviour (c.f. Tsoukas 1996; Blackler, 1994). Tacit knowing then, rather than tacit knowledge is "the active shaping of experience in the pursuit of knowledge"(Nahapiet & Ghoshal, 1998: 246) which highlights a process perspective. The existing literature in organisational theory has highlighted that knowledge is highly context dependent, emergent, multi-faceted and subject to renegotiation. Apart from Polanyi's original definition (Polanyi, 1962), other definitions draw upon a process perspective leading to a focus on the activity of knowing rather than knowledge as object. Knowledge creation in this way is considered to be a *process* of knowing and vice versa.

Conversely, a structuralist perspective on knowledge seeks to differentiate and classify different types of knowledge. This perspective treats knowledge objectively as a discrete entity in contrast to the processual perspective above. Despite criticisms of this formistic approach, it is useful when seeking to understand what types of knowledge are involved in knowledge creation and under what conditions different kinds of knowledge are applied and created. In the following section then, classifications of knowledge, are discussed. The crucial distinction between tacit and explicit knowledge is explained and then four typologies (Nonaka, 1994; Spender, 1996, 1998, Blackler, 1995; Scarbrough, 1995), which utilise this distinction and are relevant for mapping processes of knowledge creation are discussed.

### **2.1.3 Classifying knowledge – taxonomies and schema**

Tacit knowledge resides *within* the individual, known but extremely difficult or in some cases impossible to articulate adequately, “we can know more than we can tell” (Polanyi, 1966:4). To have tacit knowledge of something requires the integration of a set of subsidiary particulars, unique (known) only to the individual (Tsoukas, 1996). Explicit knowledge however, can be readily codified and communicated to others, without attention being given to these subsidiary particulars. Tacit knowledge then is arguably distinguishable from explicit knowledge in terms of its relative incommunicability. Several researchers (Winter, 1987; Boisot, 1995; Nahapiet & Ghoshal, 1998) have suggested that tacitness can be considered to be a variable where the degree of tacitness is a function of the extent to which knowledge can be communicated. Nonaka and Konno (1998) suggest that there are two primary dimensions to tacit knowledge, technical and cognitive. The technical dimension consists of the individuals unique personal skills (know-how) and the cognitive dimension consists of beliefs, schemata, mental models etc, which individuals tend to take for granted. Adopting this ontological distinction between these two types of

knowledge, Nonaka (1994), Spender (1996, 1998) Blackler (1995) and Scarbrough (1995) have all developed typologies which attempt to:

- explain the process by which knowledge is created and the way in which knowledge is used within an organization (c.f. Nonaka,1994, Nonaka and Konno, 1998; Spender, 1996, 1998)
- map shifts over time in organizing and dominant forms of organisational knowledge, at the macro level (c.f.Blackler, 1995).
- explain the process by which different types of knowledge are communicated within and across organisations (c.f. Scarbrough, 1995).

Taking each in turn,

(i) Nonaka's typology (1994)

Nonaka's typology identifies four different modes of knowledge creation premised on different types of knowledge; tacit/tacit through a process of socialisation, tacit/explicit through a process of externalisation; explicit/tacit through a process of internalisation; and explicit/explicit through a process of combination. All four modes are premised on individual knowledge creation grounded in Nonaka's assertion that individual cognition plays an important part in knowledge creation. Hence, even explicit codified knowledge may mean something qualitatively different to different individuals, dependent on what those individuals might imply from that explicit knowledge. Hence, according to Nonaka, organisational knowledge cannot exist that has the same meaning to everyone. This emphasis only on individual knowledge is a fundamental difference between the typology developed by Nonaka and others discussed here. Nonaka suggests that the organisation's role in knowledge creation is to support creative individuals and provide the necessary context for such individuals to share and create knowledge. Nonaka emphasises that while each of the four modes can create knowledge, the focus should be on the interaction between them. In particular, the development of explicit and tacit knowledge and their

interchange through internalisation and externalisation. Nonaka suggests that pure socialisation and combination knowledge modes are problematic. Knowledge created through socialisation he suggests, is difficult to share. However, this may not necessarily be the case where organisations have developed integrating mechanisms, such as shared language and routines. Within such an environment socialisation may be a particularly useful and valid mode of knowledge creation. Nonaka also suggests that knowledge created by combination may lose some of its deeper meaning. Thus, Nonaka posits that the most useful knowledge modes in knowledge creation are internalisation and externalisation, supported by processes of socialisation and combination. What Nonaka appears to ignore, is that if knowledge creation only occurs at an individual level, then the organisation is reliant on individuals propensity to share that knowledge for individual knowledge creation to be of any benefit to the organisation. Whilst it could be argued that management could play a role here in developing an environment that encourages knowledge sharing, it cannot be assumed from this typology that individual knowledge creation leads to the development of knowledge that confers some advantage to the organisation.

(ii) Spender's typology (1996, 1998)

Spender (1996) argues for a pluralistic epistemology of knowledge, differentiating again between tacit and explicit knowledge but also considering knowledge creation to be delineated at the individual and collective level. More recently, Spender (1998) argues that Nonaka's reliance on a single epistemological dichotomy is too narrow and places too much emphasis on a 'shaky concept' (Spender, *op.cit.* p.243). This point seems valid when consideration is given to the problems associated with deriving organisational benefits from individual processes of knowledge creation. Spender highlights an important distinction between individual and social knowledge. His pluralist epistemology provides a "contrast between the explicit knowledge that individuals feel they possess and the

collective knowledge on which this explicit knowledge actually stands, and the interaction of the two” (Spender, 1998:238). Thus, Spender argues that individual explicit knowledge and social (organisational) knowledge are qualitatively different but there could be some common agreement across organisational members as to what constitutes explicit organisational knowledge. Within Spender’s epistemology, there are four different types of knowledge (i) individual/explicit (conscious); (ii) individual/implicit (automatic); (iii) social/explicit (objectified); and (iv) social/implicit (collective). Spender suggests that all four different types of knowledge interact and are created within organisations.

Strategically he argues, collective knowledge is the most useful because this is a type of knowledge that other firms would find difficult to understand and imitate. A view supported by Prahalad & Hamel (1990) in their discussion of the significance of core competencies of the firm. Spender’s notion of collective knowledge, highly situated and embedded within the organisation, also mirrors Brown and Duguid’s (1991) concept of ‘communities of practice’. These are groups of individuals who regularly work together, developing collective knowledge and shared ‘sense-making’ (Weick, 1979) of what the ‘community’ does, how it does it and its relationship with other ‘communities’.

This typology provides a more robust framework with which to map processes of knowledge creation within the organisation. The framework acknowledges that forms of social knowledge can exist, that in themselves are created and understood (albeit perhaps differently) by individuals within the organisation and in addition, serve to interact with individual types of knowledge to create new knowledge at both the individual and social or organisational level. What this framework fails to highlight however, which Nonaka’s framework does make explicit, are the processes that facilitate the creation of these four different types of knowledge. Thus Nonaka’s framework is useful for articulating the processes through which different types of individual knowledge are created. Both frameworks then have some analytical utility. Based on this, it is assumed here in this

research, that social knowledge does exist and that this is created in the same way as individual knowledge.

(iii) Blackler's typology (1995)

Blackler's (1995) typology is another useful analytical tool particularly as it refers directly to knowledge work. From a review of the organisational literature, and adapted from a categorisation of types by Collins (1993) he draws 5 types of knowledge, embrained, embodied, encultured, embedded and encoded. "Embrained knowledge is knowledge that is dependent on conceptual skills and cognitive abilities. Embodied knowledge is action oriented and is only partly explicit. Encultured knowledge refers to the process of achieving shared understanding, through the development of an organizational culture. Embedded knowledge is knowledge that resides in systemic routines. It can be analysed by considering the relationships between technologies, roles procedures and emergent routines. Finally, encoded knowledge is information conveyed by signs and symbols either in manual or electronically transmitted form". (Blackler, 1995 :1024-1025).

These different types of knowledge can exist at either the individual or collective level. For example, embrained knowledge equates to Nonaka's individual tacit knowledge and encultured knowledge equates to Spender's collective (social/implicit) knowledge. Embedded knowledge can be both tacit and explicit. In some ways then Blackler's typology is a synthesis of Nonaka and Spenders' work. Importantly, Blackler asserts that different types of organisations are dominated by different types of knowledge. For example, he suggests a highly bureaucratised organisation will rely predominantly on knowledge embedded in organisational routines and rules. Significantly, for this research, Blackler highlights the difference between KIFs, of which expert consultancies are a typical example, and other firms, premised on their predicted dominant knowledge type. Blackler highlights the unique way that KIFs operate suggesting that these firms combine unique problem solving capabilities with high levels of managerial skill, necessary to deal

with the demands of knowledge workers and (in the case of consultancies) clients alike. According then to Blackler's typology, consultancy firms can be categorised as either communication-intensive, reliant mainly on encultured knowledge at the collective level or, symbolic analyst dependent and reliant on the embrained skills of individual experts. Whilst this typology lacks an emphasis on the way in which a dominant knowledge type may develop, it will be analytically useful to establish within the case study firms whether there were dominant knowledge types which these firm's tended to rely upon at different periods in time as they developed.

#### (iv) Scarbrough's typology of knowledge communication (1995)

When considering the way different types of knowledge interact in order to create new knowledge, consideration needs to be given to the social and cultural communication processes used. Focusing on the dynamics of knowledge communication, Scarbrough (1995) defines different modes of knowledge communication as *professionalism* where knowledge is communicated through its embodiment in the learning and experiences of specialists; *organisational sedimentation* where knowledge is communicated via its embodiment in organisational routines, practices and structures; and *objectification* where knowledge is codified and communicated as universally applicable, standardised, portable solutions.

Comparing modes of knowledge communication with the forms of knowledge discussed earlier, suggests inter-relationships between dominant knowledge types and dominant modes of knowledge communication. For example, in relation to expert consultancy firms that emphasise embrained and encultured knowledge, professionalism is likely to be a crucial mode of knowledge communication. In these firms consultants themselves play a key role both as keepers and carriers of the knowledge base (both tacit and explicit).

Similarly, professionalism has been found to be crucial to knowledge communication in high-performing research projects especially in relation to gatekeeping activities

(Tushman, 1979). However, sedimentation and objectification modes are also relevant. For example, knowledge relevant to the consultancy process (such as a consultant's experience in negotiating contracts) could be articulated and objectified into verbal (explicit) prescriptions about 'best practice' which, through processes of organisational sedimentation, can then become embedded as new rules and procedures (such as standard contractual forms). Thus modes of knowledge communication and forms of organisational knowledge are interwoven and need to be considered in combination when characterising the way processes of knowledge creation occurred within the case firms.

The typologies that have been discussed in this section will be used within the results chapter (Chapter 8) to analyse and map the following over time

- The extent to which each firm is reliant on particular types of knowledge for knowledge creation
- The predominant processes through which different types of knowledge interact, creating new knowledge
- The type of knowledge the firms are primarily reliant upon and
- The major mode of knowledge communication within each firm.

In this way the knowledge creation process in each firm can be characterised. Any changes that may have occurred over time will be discussed in relation to the possible conditions that may have stimulated such changes in order to consider the inter-play between organisational conditions, individual behaviour and processes of knowledge creation.

Acknowledging however that this formistic, structuralist perspective is simplistic (Tsoukas, 1996), some of the problems associated with distinguishing between discrete knowledge types are discussed in the following section.

#### **2.1.4 The incommensurability of knowledge**

Whilst for analytical or discursive purposes it is useful to distinguish between different types of knowledge, there are no objective, scientific facts that can support the distinctions that are made in the various typologies that have been discussed. As Blackler (1995) asserts when qualifying his own analysis, ultimately different types of knowledge are in fact inseparable, knowledge being multi-faceted and complex. Spender (1998) also focuses on the fundamental incommensurability of knowledge. This highlights the inherently problematic nature of the structuralist perspective. Tsoukas (1996) reinforces this point when stating that the two basic forms of knowledge (tacit and explicit) are not mutually exclusive, they are in fact mutually constitutive of each other. He therefore questions the relevance of distinguishing between the two in an organisational context. He suggests that firms do not rely on a single agent for their knowledge, firms are distributed knowledge systems, drawing upon inherently indeterminate and continually emerging knowledge. Knowledge is created in organisations through the social practices organisational members are involved in which are characterised by unique normative expectations and dispositions. Knowledge is thus distributed throughout the organisation and consists of local knowledge that individual members possess, some of which originates from outside of the organisation. An organisation's knowledge he suggests, is never fixed, it is emergent and continually reconstituted through the activities undertaken by the firm.

Both Nonaka (1994) and Spender (1996) whilst differentiating between knowledge types, do also refer to the way tacit and explicit knowledge are mutually constitutive. For example, Nonaka (1994) suggests that tacit knowledge, combining cognitive and technical elements, can be shared (thus making it explicit) but not stored at the collective level, through communication. This process also adds to or refines the tacit knowledge of the individuals involved. Communication can be verbal or non-verbal. Non verbal communication of tacit knowledge occurs when individuals watch others perform or

behave in particular ways and learn from this (Spender, 1996). Tacit knowledge however, is personal. Therefore what tacit knowledge an individual acquires through sharing, will still be unique to the individual. Furthermore, all explicit knowledge is premised on tacit knowledge, “tacit knowledge is the necessary component of all knowledge; it is not made up of discrete beans which may be ground, lost or reconstituted” (Tsoukas,1996:14). Thus explicit knowledge is continuously mediated by the practical skills and implicit judgements that constitute an individual’s tacit knowledge base (Spender, 1998).

Leonard & Sensiper (1998) also aim to overcome the problems associated with the distinctions drawn between different types of knowledge and assert that “knowledge exists on a spectrum. At one extreme is almost completely tacit, that is semi-conscious and unconscious knowledge held in people’s heads and bodies. At the other end of the spectrum, knowledge is almost completely explicit, or codified, structured and accessible to people other than the individuals originating it”. (1998:36) Whilst then it is a useful analytical device, particularly in the research here, to differentiate and delineate knowledge types, modes of knowledge communication and so forth, recognition of their inseparability and incommensurability has to be acknowledged. When attention is given to this, the complexity and inherent unpredictability and uncertainty associated with processes of knowledge creation are highlighted. These characteristics of the process need to be acknowledged and are probably not emphasised sufficiently within the structuralist perspective.

The research question aims to focus on the critical organisational conditions necessary to sustain processes of knowledge creation because these shape social activity and social activity (as seen) is critical to knowledge creation. However, it is necessary to characterise the knowledge creation process in order to develop the analysis. On this basis, a structuralist perspective provides a relatively simple, analytical approach for mapping processes of knowledge creation over time within the case firms. These need to be

articulated in order to consider the influence of changing contextual conditions on processes of knowledge creation in support of the retrospective historical analysis that will be developed.

Having discussed the theoretical underpinnings that will be used to characterise knowledge creation, in the following sections (2.2 – 2.7), existing literature that has considered the structural conditions which serve to facilitate or constrain knowledge creation is considered and critiqued.

## **2.2 The importance of diversity for knowledge creation**

Existing literature (Kanter,1988; Starbuck,1992; Nonaka,1994; Spender,1998) has highlighted a need for the development of a diverse workforce if knowledge creation is to be promoted and sustained within organisations. This literature suggests that a diverse set of resources (i.e. experts with different backgrounds and abilities), provide a broad knowledge base at the individual level offering a greater potential for knowledge creation. Grant (1996a) in developing a knowledge-based theory of the firm, suggests that the greater the diversity of knowledge within the organisation, the greater the scope for knowledge integration. Spender (1998) suggests however, that it is not this diversity in itself that is important, it is the institutionalisation of diversity at a systemic level that is required. What is necessary then is that there are organisational processes and routines in place that can handle significant levels of diversity and dissensus such that co-operation and co-ordinated action can occur. Spender (1998) recognises here then that diversity can be problematic and a highly diverse workforce may require different ways of organising and managing. This point is also made by Grant (1996b) who asserts that when tasks are particularly complex (e.g. knowledge creation) there is a reliance on the development of organisational routines. These are defined as “a mechanism for co-ordination which is not dependent upon the need for communication of knowledge in explicit form.....individuals develop sequential patterns of interaction which permit the integration of their specialised

knowledge without the need for communicating that knowledge” (Grant, op.cit. p. 379).

Routines then are not organisational processes that need to be made explicit, they exist as collective knowledge (Spender, 1996) and facilitate co-ordinated action within and across teams of diverse individuals.

Nonaka (1994), drawing on his research in Japanese multi-nationals, explains the process whereby knowledge is created within self-organising teams. Primarily Nonaka focuses on the need for self-management in processes of knowledge creation. The manager’s or leader’s role is therefore to provide conducive organisational conditions in which these self-managed teams work. For example, not only should teams be made up of a diverse group of individuals, but organisational conditions must be such that individuals are subject to variety in their experiences. These dual conditions constitute the requisite variety necessary to stimulate knowledge creation. Requisite variety leads to enlargement of individual’s knowledge base. In itself however, this is insufficient. In order to amplify this knowledge, stimulating knowledge creation, it needs to be shared and articulated through social interaction within the team.

Fundamental to this process is the development of trust between team members which, Nonaka asserts, will develop through continual dialogue, attempting to articulate one’s tacit knowledge and shared experiences that are ‘lived’ through by team members. (This issue of trust is developed more fully in section 2.9.2). This is where diversity is important because introducing dialectic into the team, focusing on contradictions and paradoxes and encouraging constructive criticism, stimulates dialogue. Leonard and Sensiper (1998) have also emphasised a need for critical reflection on concepts and ideas, which is promoted in teams that consist of a diverse range of individuals. This form of critical dialogue promotes “*creative abrasion* , intellectual conflict between diverse viewpoints that is channelled into new ideas and products”(Leonard and Sensiper, 1998:38). Crucial in this process are notions of temporal continuity (the opportunity for continual interaction) and redundancy

(Nonaka, 1994). The notion of redundancy refers to the process whereby team members might deliberately express more information than that strictly required to address the problem or issue at hand, in order to facilitate better understanding more generally within the team. Redundancy can also be introduced into the team if members are allowed to engage in activities that outwardly appear to be unconnected to the task in hand. Engaging in these activities develops individuals' tacit understanding of a problem.

Importantly for this research, Leonard and Sensiper (1998) suggest that creative abrasion will not occur if organisational conditions are such that individuals are censored or choose to self censor themselves. This can occur in organisations in which individuals are rewarded for hoarding knowledge for example, in firms which value expertise but discourage mentoring and assisting others. They also suggest that managers or leaders should avoid interrupting any tacit work norms or routines (Grant, 1996b) shared across 'communities of practice' because these behaviours and actions significantly shape creative interaction. These observations highlight the inherent complexity and importance of collective knowledge (Spender, 1996) in processes of knowledge creation.

Whilst then there is considerable overlap in the literature, regarding the importance of diversity and the need for ways to have evolved (organisational routines) that facilitate co-ordinated activity, these prescriptive observations fail to consider how diversity can be managed or how tacit work norms or collective knowledge (Spender, 1996) develops. This highlights the paucity of detailed empirical studies focused on knowledge work. These observations and recommendations do not acknowledge the potential contradictions between norms and diversity that may pull in opposite directions (i.e normative control vs. autonomy). The management of these contradictory pressures then, is not addressed in the existing literature. For example, whilst some guidelines to the way in which diversity should be managed in order to facilitate creativity are offered, highlighting a need primarily for self-management, paradoxically the literature suggests managers are urged to

'ensure' that individuals do not hoard their knowledge and intellectual conflict remains depersonalised.

To summarise, a number of researchers have highlighted a need for diversity across the organisation but not specifically considered how this diversity can be accommodated or managed. Leonard & Sensiper (1998) go some way towards developing pragmatic recommendations as to how diversity can be accommodated and Spender (1998) has acknowledged that the management of diversity is possibly more important than diversity itself. Nonaka's research supports this notion. Furthermore, he explores the way in which within the forum of self-organising teams, breadth of experience can be stimulated and developed (i.e. individual's knowledge bases can be extended) through processes of redundancy and requisite variety, making more efficient processes of knowledge creation. However, even though Nonaka's analysis offers some interesting insights, it is limited to specific processes occurring within teams. He does not consider other contextual conditions e.g. levels of formalisation, that may facilitate processes of knowledge creation. Whilst then there is agreement regarding the need for diversity, previous research does not offer substantive, comprehensive accounts of the way this diversity is to be managed, which the research here seeks to address.

The discussion in this section has sought to consider fairly generic aspects of the organisational environment and organisational mechanisms that might sustain processes of knowledge creation. In the following sections consideration will be given to literature from organisational theory and strategic management that has sought to highlight some of the distinctive characteristics of KIFs and PSFs that are considered to facilitate knowledge work. Other more general literature that has focused on some of the structural conditions considered to facilitate or constrain processes of organisational innovation will also be discussed and critiqued. Together, this research will be summarised to highlight what the

literature to date suggests are those tangible, organisational attributes that influence processes of knowledge creation.

### **2.3 Defining characteristics of knowledge intensive firms and professional service firms.**

Much of the early interest and research on consultants originated in Scandinavia and was not written in English and therefore not accessible to most English researchers (Sveiby & Reisling, 1986; Hedberg, 1990; Lindmark; 1990). However, in the late 1980s and early 1990s, literature began to emerge that specifically focussed on the work of consultants. Sveiby and Lloyd (1987) in their account of knowledge or know-how companies for example, suggested that highly profitable firms had begun to emerge that provided a highly customised, creative, problem-solving service to clients. They gave as examples of such companies, specifically management and engineering consultancies.

Important commentators on the general trends that were occurring at this time included Reich (1991) and Drucker (1993). Reich (1991) referred to the emergence of 'symbolic analysts'. These individuals were a new type of worker who combined significant levels of technical skill in problem identification and problem solving, with marketing, strategic and financial acumen. He applied this definition to particular groups of workers including consultants. Drucker (1993) also suggested that productivity was becoming increasingly dependent on knowledge workers in a 'post-industrial' age (Bell, 1973). He characterised knowledge workers as individuals who had high levels of education and specialist skills and combined this expertise with the ability to identify and solve problems. These definitions of symbolic analysts and knowledge workers whilst applied generally to consultants by these commentators, are particularly pertinent to expert consultants.

Starbuck (1992) and Alvesson (1992, 1993) were two of the first commentators to consider the work of consultants in any depth and both considered consultancy work and consultancies to be examples of knowledge work and KIFs. Starbuck (1992) highlighted

that within a KIF, knowledge had more importance than other inputs and human capital dominated. Whilst in chapter 1, it was suggested that Starbuck may have over generalised insofar as all consultancies may not be quite so knowledge intensive, this feature does apply to expert consultancies. Alvesson also states “A key characteristic of KIFs is said to be their capacity to solve complex problems through creative and innovative solutions” (Alvesson,1993:1000). All of these commentators then emphasised that consultancies, which were representative of KIFs, employed a distinctive group of workers. Importantly this literature highlighted not only the fundamental dependence of these firms on their workforce but more importantly, knowledge workers’ inherent need for autonomy in order to conduct knowledge work. Recent work by Alvesson has studied in depth the way in which one KIF organised and operated, highlighting autonomous ways of working and the importance of leadership behaviour (Alvesson, 1995). This is a rich case study and highlights some important aspects of a KIF that are relevant to the research here. This work will therefore be considered more specifically in section 2.8 when the influence of organisational culture in processes of knowledge creation is considered.

Other commentators, particularly in the field of strategic management have referred to consultancies more generally as examples of PSFs (Maister, 1993; Keeble et.al, 1993; Lowendahl, 1997). These researchers do recognise that there are precise requirements that constitute a profession. However, their approach tends to ignore the fundamental characteristics of professions and is similar to Lowendahl (1997). “The fact there is no established profession does not, however, mean that highly educated individuals cannot deliver professional services and abide by the general rules of conduct. Management consultants may behave just as professionally as lawyers and medical doctors, and there may be charlatans in the ranks of all vocational groups”(Lowendahl, 1997:19). She summarises the characteristics of a professional service as:

- 1) Being highly knowledge intensive, delivered by people with higher education, and frequently closely linked to scientific knowledge development within the relevant area of expertise.
- 2) Involving a high degree of customisation.
- 3) Involving a high degree of discretionary effort and judgement by the expert(s) delivering the service.
- 4) Typically requiring substantial interaction with the client firm representatives involved.
- 5) Being delivered within the constraints of professional norms of conduct, including setting client needs higher than profits and respecting the limits of professional expertise (op.cit.p.20).

Having in Chapter 1 (section 1.3) discussed the major differences between generalist management consultancies and expert consultancies, these defining characteristics (particularly the first two) appear to have far more resonance for expert consultancies than generalist management consultancies.

This again highlights the way in which many commentators (particularly in strategic management) privilege all types of consultancy work and fail to appreciate the heterogeneity in the sector. Lowendahl (1997) for example, suggests that the crucial strategic difference between professional service firms is the role of the professionals employed, i.e. the characteristics of the resource base and the types of project targeted. She thus identifies three generic types of professional service firm premised on the firm's strategic focus:

- Client relations based (where client relations are the strategic focus and resources are individually controlled)
- Problem solving (where creative problem solving is the strategic focus and resources are team based – individual and collective)

- Output based (where adaptation of ready solutions is the strategic focus and resources are controlled by the organisation).

Using this classification scheme then, expert consultants fit into the problem solving category of PSFs. It is more difficult to establish however, where generalist management consultants fit into this classification scheme given their reliance on generic 'best practice' solutions *and* the importance of client relationships. It is also problematic to accommodate both Lowendahl's initial classification of a professional service and her generic definitions of PSFs as the two appear to be contradictory. If a PSF is characterised as output based for example, it is debatable whether the firm needed to be knowledge-intensive, requiring individuals with high levels of expertise. This type of firm is more reflective of a generalist management consultancy. Thus it seems relevant here to refer to expert consultancies as more representative of KIFs, than PSFs (whilst acknowledging that much of the research conducted on PSFs may be relevant to a study of expert consultancies).

Lowendahl (1997) does recognise and emphasise for example, that PSFs, in particular the problem solving type, are completely dependent on the experts employed, i.e. the firms' critical strategic resources (intellectual capital) are owned and controlled by the individual experts, rather than the firm. Thus a major issue, which most other commentators in the field of knowledge work have also highlighted if the firm is to sustain processes of knowledge creation (required for problem-solving), is the recruitment and perhaps more importantly, the management and retention of the experts employed. Some KIFs have been found to adopt quite distinctive approaches to recruitment and selection (Bergström, 1995,1998), indicating that management consider this to be a crucial issue. Even the global consultancies such as Bain & Co consider efforts directed at recruitment and retention issues to be of critical importance to the firm (Jackson, 1999). Importantly in her work, Lowendahl (1997) also suggests that many PSFs should aim to remain relatively small,

rather than adopt a strategy of high growth. This she argues often leads to diminishing retention rates that threaten the competitive base of these firms.

Stinchcombe (1958) was one of the first researchers to recognise that there was a crucial difference between professional work and other types of work and hence, *organising* within the professional context was therefore inherently different. This work highlighted the importance of autonomy and the impact that this could have on organising within the firm. Following Stinchcombe's early work, there has been further research focusing on professional work and how professionals and professional sectors organise. For example, Greenwood and Hinings (1988) and Hinings et al (1991) research on the accountancy sector and Maister's (1993) research on organising within legal and management consultancy firms. Maister's work in particular tends to focus on the way in which professional autonomy can be achieved in a manner that is supportive of overall organisational strategy in a highly prescriptive manner.

Lowendahl's work also reflects a highly prescriptive approach. She suggests that the strategies developed by these firms are complex. Top managers, she asserts, have to be people other experts will respect. Therefore the most highly recognised professional experts should, in principle, take these positions (if they are willing to do so).

Organisational structure she argues should be informal and flexible based on project team working. However, high levels of co-ordination are required, particularly in terms of support structures. This reinforces the emphasis Grant (1996a) places on the need to develop knowledge integrating mechanisms within 'knowledge-based' firms that perform complex tasks. Decision making in these firms Lowendahl (1997) suggests, cannot be top down. A strategy of consensual decision making needs to be adopted where consensus on goals and priorities are developed through listening to the aspirations of the experts employed. Co-ordination is ultimately achieved then through a process of mutual

adjustment or mediation between top management and the other professionals within the firm. How this mediation occurs however, is significantly not addressed.

Early research on KIFs (Alvesson (1992, 1993; Starbuck, 1992) and research in the field of strategic management that has sought to define the work and strategies of PSFs, contribute in a partial way to an understanding of the generic work activities, modes of organising and managing to be expected within an expert consultancy environment.

It is evident from this work that expert consultants will expect and demand autonomy.

Lowendahl (1997) implies from this that decision making will need to be decentralised to some extent but this poses contradictions here as KIFs rely on collective activity. She has also highlighted that retention of professionals is a crucial issue in these types of firm.

However, this somewhat prescriptive analysis of the mode of organising and management required in PSFs, provides only very limited insight into the organisational environment necessary to sustain processes of knowledge creation. Specifically, much of the research on PSFs in the field of strategic management does not consider, other than peripherally, other important conditions that may be required to intercede between individuals' demands for autonomy and organisational efficiency criteria, within such a complex, uncertain environment. Even establishing what constitutes organisational efficiency within these contexts may be problematic. This research then aims to consider in depth these important issues.

In the following sections then (2.4– 2.7), drawing primarily on literature related to research conducted in KIFs, other structural conditions will be considered which may influence processes of knowledge creation. In addition, research that has considered structural conditions considered to facilitate or constrain processes of innovation and knowledge creation more generally, across organisation contexts, will also be discussed and summarised.

## **2.4 Organisational configuration as facilitating processes of knowledge creation within KIFs**

Many researchers have considered overall organisational configuration to be a critical factor with regard to the innovation process (Mintzberg, 1983, Kanter, 1988, Starbuck, 1992, Alvesson, 1995, Grant, 1996b). Premised on Mintzberg's original definition of an adhocracy (Mintzberg, 1983) these writers consider this archetype configuration to be important where innovation is a conscious strategy. The adhocracy de-emphasises a hierarchical structure in preference to a dynamic organisational structure based on self-forming project teams, decentralised decision making and little formalisation. Within an adhocracy, a matrix structure may emerge with horizontal linkage mechanisms and a dual authority structure reporting to both team leader and line manager. Mintzberg suggests that typically adhocracies are young firms, utilising sophisticated technology in a complex and dynamic environment. In somewhat simple terms, Mintzberg suggests that control within this environment is based on professionalism and strong consensual cultural values. Thus Mintzberg suggests that the tensions between organisational efficiency and individual autonomy are mediated by the development of strong organisational cultures which serve to both self-discipline and integrate individuals. This is explored further in section 2.8. Alvesson (1995) found in his study of a KIF that it could in many ways be likened to an adhocracy. However, the firm also in other respects resembled at least three other configurations, suggesting that it can be problematic when attempting to compare an organisation in terms of overall configuration with those that have been classified in the literature (Mintzberg, 1983).

There appears however, to be a degree of consensus within the literature regarding the fundamental structural requirements necessary to facilitate processes of innovation. Firms should be structured with little or no hierarchy, low formalisation (systems and procedures) and decision making should be highly decentralised. These basic requirements are

considered to facilitate knowledge creation because the resulting informal, loosely-coupled organisational environment provides conducive conditions in which individuals feel free to experiment and innovate (Weick, 1979).

Whilst this configuration might indeed promote knowledge creation, scant attention has been given in the literature to the inherent problems associated with it (a notable exception here is Alvesson, 1995). What for example, are the implications for leadership behaviour and control and how are efficiency criteria established and managed? Sveiby and Lloyd (1987) anticipated some of these issues and problems and suggested that high levels of managerial skills were required in such companies. These skills however were not defined in detail. Overall much of this work lacks substantive empirical depth, such that the problems associated with low formalisation and self-managed project teams are not fully explored. In this research, the analysis aims to address this issue in depth.

### **2.5 Organisational attributes that are considered to constrain processes of knowledge creation within KIFs**

Starbuck (1992) suggests that in general there are many barriers to learning within KIFs and learning, acquiring new knowledge is one aspect of knowledge creation. From his research in a number of KIFs, he identifies a number of factors that may constrain processes of knowledge creation. At an individual level he suggests that experts naturally occupy distinct occupational niches, which in covering particular specialised fields are inherently limited in their scope of knowledge. Thus the scope of knowledge search by the expert will be limited to a distinctive area of expertise, familiar to the expert. Here, Starbuck makes assumptions about the type of knowledge search experts engage in which may only be valid for some KIFs. This assumption is not necessarily generalisable across all KIFs. For example, if an emphasis is placed on knowledge sharing throughout the organisation, recognising that knowledge creation demands the integration and synthesis of different types of knowledge and expertise, then there would be no reason for individuals

to necessarily limit their scope of knowledge search to within their own discipline. If knowledge-integrating mechanisms exist (Grant, 1996a) and principles of redundancy and requisite variety (Nonaka, 1994) are introduced into the team, then knowledge search need not be limited in this way. This assertion then may be applicable within some KIFs but not necessarily apply to expert consultancies suggesting that it may be important to distinguish between different types of KIF.

Starbuck also considers generic aspects of the organisational environment that may constrain knowledge creation. He suggests firstly, that the fact that many experts (particularly consultants) have to rigorously account for their time, curtails the amount of time available for consultants to acquire new knowledge and learn. This point may be valid. However, in KIFs that are primarily focused on developing customised solutions, it may be particularly difficult for management to impose time constraints on a consultancy assignment characterised by knowledge creation. Time might be a fundamental resource necessary for sustaining knowledge creation. Hence, it will be important to consider in the analysis to what extent consultants are required to account for their time and what opportunities consultants have to engage in activities which may provide them with the opportunity to enlarge and amplify their own knowledge base.

Secondly, Starbuck argues that KIFs are inherently vulnerable because of their reliance on expert individuals. He suggests that when experts leave their knowledge base is also lost, potentially constraining future processes of knowledge creation. This would imply that it is unlikely that knowledge creation processes can be sustained if there are poor retention rates within the firm. It will be important to consider in the analysis the approach taken to the recruitment and selection of consultants and whether the firms have managed to sustain high retention rates over time. Many consultancy firms have recently begun to implement knowledge management systems in an attempt to 'capture' the knowledge of individual consultants in an effort to offset the problems associated with individuals leaving the

organisation (Ives & Torrey, 1998; Huang, 1997). However, 'knowledge management' is a very recent concept and there is little evidence yet to suggest that knowledge management systems are viable tools for capturing individual knowledge and expertise (particularly tacit knowledge) in order to offset the problems associated with individuals leaving KIFs (Scarborough, Swan and Preston, 1999).

Thirdly, Starbuck suggests that several modes of knowledge creation can convert individual expertise into sedimented and objectified knowledge (Scarborough, 1995) embedded in physical capital, routines and organisational culture. Whilst, Starbuck does not describe the process for conversion he argues that knowledge can become codified in software programs and templates of 'best practice' such as systematic auditing procedures, or tools for project development and planning. This process has been referred to by Scarborough (1995) as the sedimentation or 'blackboxing' of knowledge. As the usage of these tools or templates spreads, becoming almost mandatory within the organisation, then the knowledge creation process is constrained as consideration of new tools or concepts tends to be precluded. In the analyses of the case firms it will be relevant then to consider what use, if any, is made of standardised project tools and consider the influence these may have on processes of knowledge creation.

Fourthly, Starbuck suggests that a delicate balance needs to be developed between the level of formalisation necessary for co-ordinated action (routines) and the low levels of formalisation required to facilitate innovation. This fourth point acknowledges then the inherent tension omnipresent within KIFs which leaders of such firms must seek to resolve. Again however, Starbuck does not discuss what approaches are relevant here. In this section then, a number of potential constraints on processes of knowledge creation, have been discussed. Starbuck (1992) acknowledges that he has generalised regarding barriers to learning within KIFs and suggests that rare experts and 'peculiar' KIFs do exist that may not experience many of these barriers. However, whilst qualifying his

assumptions, Starbucks, like many other researchers on knowledge work assumes a significant degree of homogeneity across KIFs and fails to suggest what might constitute a 'peculiar' KIF. Whilst, it is evident that these conditions need to be considered when analysing the case firms, the inter-relationships, interaction and possible contradictions between those aspects of the organisational environment considered to promote knowledge creation and those that potentially constrain knowledge creation have not been addressed in the existing literature. This research here seeks to address this important omission by considering the interaction and inter-relationships between organisational conditions that sustain processes of knowledge creation over time.

In the following section, research that has focused on promoting knowledge creation processes within organisational contexts more generally is considered and the implications of this work for this research study will be addressed.

## **2.6 Research on determinants of creativity and innovation in organisations**

Amabile (1988) suggests that individual creativity is an essential but not sufficient component of organisational innovation as "features of the organisation can be the most crucial determinants of an individual's creativity at any point in time" (Amabile, op.cit. p.125). Amabile cites organisational attributes such as good project management, sufficient resources and encouragement from management, as factors influencing the organisational innovation process. Her findings were based on three different interview studies with 120 R&D scientists from 20 corporations, marketing executives with a large US bank and employees of a railroad company. Interviewees were allowed to define creativity as they saw fit and they were to tell a story of high creativity within their organisation that had involved them. From this research, Amabile developed a model of organisational creativity and innovation, in an attempt to encapsulate the entire innovation process.

Despite the substantive nature of this research, the analysis Amabile provides of the relevance of organisational environment and of particular attributes as determinants of

creativity is only partial because of weaknesses of the methodological approach employed. These weaknesses include the freedom of the interviewee to self define creativity and the debatable nature of creativity in at least one of the environments studied, that of a railroad. Amabile also relied only on content analysis of interview transcripts and did not spend any time in the firms concerned. From this, Amabile suggests 9 qualities of organisational environments that serve to promote creativity and 9 that serve to inhibit creativity. Table 2.1 summarises Amabile's findings.

<b>Organisational Factor</b>	<b>Facilitator</b>	<b>Constraint</b>
Autonomy	Freedom	Lack of freedom & control
Project management	Good – e.g. good communication skills	Poor – e.g. lack of direction
Resources	Sufficient facilities , funding	Lack of facilities and funding
Organisational characteristics	Climate characterised by co-operation	Inappropriate reward mechanisms
Recognition	Creative work rewarded	
Time	Sufficient to think creatively	Insufficient
Challenge	Intriguing nature of the problem	
Status Quo	Risk taking	Unwillingness to take risks
Competition		Internal
Evaluation		Inequitable evaluation and criticism
Organisational disinterest		Apathy
Pressure	Sense of urgency / competition from other org's	

**Table 2.1 Organisational factors influencing creativity (Amabile, 1988)**

Some of the factors identified by Amabile in her studies appear make intuitive sense. For example, a lack of time as a constraint (as suggested by Starbuck, 1992) and autonomy as a facilitator of creativity. However, it could be argued that in different contexts, certain factors may operate counter-intuitively or be incompatible with other factors and hence potential benefits may be lost. For example, within an expert consultancy, lack of time or time pressure may be an inherent aspect of the organisational environment, assuming that

there is continual pressure to complete projects as quickly as possible. Hence, rather than being a constraint on processes of knowledge creation, time pressure within this particular context may serve to facilitate creativity as individuals, in project teams, strive to create knowledge quickly. Amabile also suggests that good project management is a facilitator of creativity but the term 'good' is highly context dependent. Within an expert consultancy for example, good project management may rely less on good communication skills and more on determining the degree of autonomy team members should be afforded to ensure the necessary freedom to innovate. It may also be questionable whether expert consultants actually require direction during project working, given their levels of skill and expertise. Many of the factors then highlighted by Amabile are either ambiguous or difficult to generalise to expert consultancies.

From her results, Amabile developed a model termed the 'Creativity Intersection', suggesting it is a combination of individual motivation, resources and organisational techniques, such as adequate reward system, good project management, etc. that stimulates high levels of creativity in organisations. Despite questions regarding methodology, this framework does highlight the importance of analysing the inter-relationships between individual behaviour and organisational conditions in order to understand how particular firms manage to sustain creativity and innovation over time.

Kanter (1985, 1988) based on her research in some major US corporations suggests that innovation is more likely to occur in organisations that are flexible and quick to react, encourage coalition building (including across organisational boundaries), and are integrated both structurally and culturally. Kanter, like several other researchers, also suggests that heterogeneity amongst the workforce should be encouraged. Kanter's analysis whilst interesting, is again somewhat ambiguous. For example, she offers a plethora of techniques and approaches that firms can adopt in order to stimulate processes of innovation. However, at least some of these techniques and approaches if

operationalised could pull in opposite directions. For example, whilst encouraging management to develop a cosmopolitan orientation and broad skills base, she does not acknowledge the problems of integration across such a heterogeneous workforce. Kanter then, offers vague prescriptions, for managers interested in promoting innovation. For example, she states “Organisational conditions-structure and social arrangements-can actively stimulate and produce innovation, as long as those conditions take into account the “organic”, “natural”, and even “wild” side of innovation.”(Kanter, 1988:170). However, the question of how firms organise so that they can be both flexible *and* quick to react *and* integrated *and* contemporaneously allow for the ‘wild’ aspects of organisational innovation is not addressed. Here again, the problems of developing an organisational environment that encompasses both low levels of formalisation with the ability to operate efficiently are acknowledged but not considered in any depth.

## **2.7 A summary of the structural conditions s considered to facilitate or constrain processes of knowledge creation**

Table 2.2 summarises then some of the existing literature that has considered those organisational attributes that play a role in processes of knowledge creation. Empirical evidence will be considered for the existence or otherwise of these attributes within the case study firms and more importantly, the inter-relationships between them will be explored in order to interpret their influence on sustaining processes of knowledge creation. The asterix in the tabular summary highlight that in the context of expert consultancies, based on the existing literature, the influence of certain organisational attributes remains equivocal. Good project management and the influence of time pressures have already been considered. In addition, the influence of attributes such as external and internal competition, the nature of the status quo i.e. risk taking or risk averse, cannot be simplistically predicted and may not even apply in firms where the major work activities are characterised by creativity and uncertainty. This summary serves as a useful

starting point but is lacking in terms of being overly prescriptive and not acknowledging the contradictions. Generalisations have been made by some researchers, for example Starbuck (1992) which are not necessarily relevant or appropriate to all KIFs.

Attribute – (predicted from the literature to be )	Facilitator	Constraint
Flexible project based structure e.g. adhocracy (e.g Mintzberg, Lowendahl, Grant)	X	
Low formalisation (e.g. Starbuck, Lowendahl, Mintzberg)	X	
Consensual, decentralised decision making (e.g Lowendahl, Minzberg)	X	
Reward systems that value creativity (e.g Amabile)	X	
Project Management * (e.g Amabile)	?	?
Time pressure * (e.g. Amabile, Starbuck)	?	?
Challenge(e.gAmabile, Kanter)	X	
Ample tangible resources e.g.capital, equipment, technology (e.g. Starbuck, Amabile)	X	
Pressure / External competition *(e.gAmabile, Kanter)	?	?
Internal Competition* (e.g. Amabile)	?	?
Organisational routines * (e.g. Spender, Grant)	?	?
Valid recruitment & selection process (e.g. Lowendahl)	X	
Retention systems (e.g Starbuck, Lowendahl)		X
Sedimentation of knowledge in project tools (e.g.Starbuck)		X

**Table 2.2 Predicted structural conditions influencing knowledge creation processes within expert consultancy firms**

The research presented here aims to interpret in detail the manner in which organisational attributes operated and interacted to shape organisational conditions such that knowledge creation was sustained over time. Thus a processual approach that explores behaviour and the texture of firms is adopted in this research, in order to overcome the reductionism,

point but is lacking in terms of being overly prescriptive and not acknowledging the contradictions. Generalisations have been made by some researchers, for example Starbuck (1992) which are not necessarily relevant or appropriate to all KIFs.

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Reward systems that value creativity (e.g Amabile)	X	
Project Management * (e.g Amabile)	?	?
Time pressure * (e.g. Amabile, Starbuck)	?	?
Challenge(e.g Amabile, Kanter)	X	
Ample tangible resources e.g.capital, equipment, technology (e.g. Starbuck, Amabile)	X	
Pressure / External competition *(e.g Amabile, Kanter)	?	?
Internal Competition* (e.g. Amabile)	?	?
Organisational routines * (e.g. Spender, Grant)	?	?
Valid recruitment & selection process (e.g. Lowendahl)	X	
Retention systems (e.g Starbuck, Lowendahl)		X
Sedimentation of knowledge in project tools (e.g.Starbuck)		X

**Table 2.2 Predicted structural conditions influencing knowledge creation processes within expert consultancy firms**

The research presented here aims to interpret in detail the manner in which organisational attributes operated and interacted to shape organisational conditions such that knowledge creation was sustained over time. Thus a processual approach that explores behaviour and the texture of firms is adopted in this research, in order to overcome the reductionism,

inherent in much of the existing literature. This literature has tended to focus on prescribing and predicting the influence of fairly, discrete objectively defined variables on knowledge creation but has not explored in any detailed way their interaction. Importantly, existing literature fails to adequately consider and address the intrinsic tension between knowledge workers demand for autonomy and organisational efficiency concerns. Suggestions from commentators such as Drucker (1988) that knowledge based firms could be likened to orchestras (and thus managers need to change their style and act like conductors) are useful metaphors but do not provide a detailed understanding of the implications of managing knowledge workers. Yet how this tension between autonomy and efficiency is addressed is fundamental if processes of knowledge creation are to be sustained over time. There is little doubt that on an ongoing basis individuals require freedom and autonomy if they are to be creative and innovative (Scarbrough, 1996, 1999; Leonard and Sensiper, 1998). At the same time leaders of firms expect to sustain some competitive level of profitability. In expert consultancies some sort of equilibrium or balance needs to be found between these conditions if knowledge creation processes are to be sustained. Simply changing more structural conditions (for example reducing or increasing resources, formalisation etc) may encourage individual creativity but will not necessarily mean that creative individuals will work together in ways that, at the collective level, encourage profitability. Thus further literature needs to be considered here in this chapter, that has explored the role of cultural and social conditions on shaping individual behaviour.

In the following sections then (2.8 – 2.9) literature in the fields of organisational culture, power and trust is discussed, specifically in relation to their potential role in shaping individual behaviour.

## **2.8 The role of organisational culture in processes of knowledge creation.**

When researchers discuss the organisational attributes that may facilitate knowledge creation processes, they often refer to these attributes serving to promote an organisational culture that is conducive to innovation. A good example of this is the culture described within the 'skunkworks' at 3M by Peters and Waterman (1982). Previous research referred to above (Kanter, 1998; Starbuck, 1992; Alvesson, 1995) and others (Martin and Meyerson 1988; Meyerson, 1991a, 1991b) have suggested that organisational culture may perform an important role in organisational innovation across organisational contexts. This area of research is considered in the following sections (2.8.1 –2.8.3)

### **2.8.1 Defining culture**

Many definitions of culture tend to adopt an integrationist perspective on culture (Martin, 1992). This is the perspective that emphasises consensus and integration around dominant, common, shared values and beliefs. Definitions that adopt the integration perspective include the widely cited:

“Organizational culture is the pattern of basic assumptions that the group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems” (Schein, 1983:14).

Or:

“Organizational culture can be thought of as the glue that holds an organization together through a pattern of shared meanings. The culture focuses on the values, beliefs and expectations that members come to share” (Siehl and Martin, 1984:227).

Schein's (1983,1992) work on culture in particular has a strong managerial orientation focusing on the Founder or leader as active in shaping an integrative, shared organisational culture. Other writers in the early eighties (Peters & Waterman, 1982; Deal & Kennedy, 1982) reinforced the notion that leaders of organisations were responsible for developing and sustaining strong organisational cultures. They suggested that a strong consensual, organisational culture served the function of promoting superior performance. Strong cultures they suggested, led to employees willingly internalising corporate values, promoting commitment and behaviour that strengthened firms through integration and improved productivity. Pettigrew (1979) also suggested that purpose and commitment in organisations were sustained by leaders articulating a vision that was reinforced by their conscious and deliberate use of symbolism which shaped and developed organisational culture. Symbolism included such things as language, ritual and myth. These writers and others (Sathe, 1985; Barley, 1991) promoted an integrationist perspective on organisational culture. There are many studies that have adopted this approach (Clark, 1972, McDonald, 1991) and much has been written in the management of change literature that considers organisational change to be directly related to cultural change. This literature suggests that for successful change to occur, leaders of organisations are required to 'manage' organisational culture (Pettigrew, 1985; Tichy & Sherman, 1993).

### **2.8.2 Problems of definition and theoretical implications**

Equally however, there is also a significant amount of literature that contradicts this functionalist conception of culture. Other researchers in this area (Filby & Willmott, 1988; Meek, 1988; Martin & Meyerson, 1988, Alvesson & Berg, 1992; Kunda, 1992; Willmott, 1993) reject the functional, managerial perspective evident in much of the integration approaches, emphasising that different functional or occupational groups will not necessarily behave in the same way or hold the same beliefs or values. From a more critical perspective, Kunda (1992) and Willmott (1993) have suggested that managerial

attempts to develop and shape a strong consensual organisational culture are less concerned with fostering genuine commitment and are more concerned with promoting a hegemonic, insidious form of control, that inhibits critical self-reflection and individual choice. These writers indicate therefore that other perspectives should be considered.

These multiple perspectives have been defined in the literature in the work of Martin & Meyerson (1988) and further refined by Martin (1992). However, prior to consideration being given to these, it is important to acknowledge here that widespread agreement does not yet exist within the field of organisational culture on basic issues such as what culture is, or how or why it should be studied (Frost et al, 1991; Alvesson and Berg, 1992).

Alvesson (1995) presents a useful summary of the different interpretations and theoretical distinctions that are drawn in this field of research. He firstly broadly differentiates between those theorists who adopt an anthropological view of culture and those that consider culture as symbolic systems. In defining this latter perspective Alvesson draws heavily on the work of Geertz (1973). "Culture describes social action as depending on the meaning this has for those involved, while social structures describes social action from the point of view of its consequences on the functioning of the social system" (Alvesson, 1995:29). This symbolic perspective on culture highlights that it is the meaning ascribed to a particular social situation that subsequently guides individual behaviour. Behaviour and culture are thus mutually interdependent. Individual behaviour is shaped by interpretation of culture and vice versa. This has been demonstrated in many studies (Smircich, 1983; Feldman, 1986; Barley et al, 1988; Golden, 1992) and importantly, contradicts Schein's definition (Schein, 1983) which suggests a distinct causal relationship between organisational culture and individual behaviour.

In Alvesson's definition, the emphasis placed on the meaning ascribed to a particular social situation also highlights the significance of individual interpretation of any given situation that need not necessarily be shared. Individuals ascribe meaning to situations

through their interpretation of the ‘symbolic significance’ of the situation. Culture when perceived in this way is a root metaphor (*something an organisation is*), rather than a variable (*something an organisation has*). Viewed from this perspective, Alvesson states “culture governs the understanding of behaviour, social events, institutions or processes. Culture is the setting in which these phenomena become comprehensible and meaningful” (Alvesson, 1995:29). This important distinction has been made by several other writers in the field (Smircich, 1983; Morgan et al. 1983; Meyerson, 1991a).

In contrast, writers such as Schein (1983) who adopt a more functionalist perspective treat culture as a variable. Organisational culture is something that can be classified, changed and managed by leaders of organisations. However, in this research culture will be treated as a metaphor when exploring its influence on sustaining processes of knowledge creation, “when culture is understood in this way it exists as a ‘fundamental dimension which permeates various subsystems” (Alvesson, 1995:37). In itself culture is not then an organisational attribute or variable, instead organisational culture exists as a system of meanings and interpretations that are symbolically derived by individuals. The empirical analysis will explore organisational culture in the case firms by adopting a symbolic, interpretivist approach. This approach has been used by Alvesson (1995) and other researchers in the field of organisational culture (Smircich, 1983; Morgan et al. 1983). The methodological issues to be considered when adopting this approach are discussed fully in Chapter 3.

A metaphorical treatment of organisational culture acknowledges that within any arena of social activity, conflict, disharmony and ambiguity will naturally co-exist (with some degree of consensus) as individuals interpret and give meaning to situations in different ways. This highlights a need to adopt a multi-perspective approach to cultural analysis (Martin & Meyerson, 1988; Martin, 1992) which acknowledges two further perspectives – differentiation and fragmentation, as well as the integrationist perspective promoted by

Schein (1985, 1992). Literature pertaining to all three perspectives is considered in the following sub-section.

### **2.8.3 Multiple Cultural Perspectives**

As seen, commentators such as Schein (1983, 1992), Peters & Waterman (1987) and Deal and Kennedy (1982) ascribe to the 'integration' perspective. Other researchers focus on the way sub-cultures naturally develop in organisations as organisational members identify with particular groupings (e.g. their own department, other females etc.), rather than with the organisation as a whole. This approach supports the 'differentiation' perspective. The emphasis here is on dissensus amongst particular groups rather than consensus and common shared values across the organisation. Further, Martin & Meyerson (1988) suggest that a perspective that acknowledges ambiguity is also relevant because in some organisations individuals can experience a general lack of clarity or simultaneously hold multiple meanings or beliefs. Lack of clarity can result from unclear structures or organisational boundaries and imprecise goals. Multiple meanings and beliefs can result from contradictory or vague ideologies and interests. These ambiguities can exist at an organisational or occupational level and as they are representative of a collective and are anchored in values, structures etc. they are inherently cultural. Researchers who focus on ambiguity, then, adopt the 'fragmentation' perspective (Meyerson, 1991a, 1991b; Martin, 1992). This perspective legitimates any differentiation that exists within organisations. Many cultural researchers adopt a theoretical position that privileges one of these three perspectives and excludes other interpretations. Martin (1992) suggests however, that in order to develop a more complete cultural analysis, all three perspectives need to be considered together. It is then possible to determine which of the three perspectives predominates (referred to as the 'home' perspective) and explore what role this might have in shaping individual and collective behaviour within an organisation. The implications of

each of these perspectives for analysing the role of organisational culture in sustaining processes of knowledge creation are considered below.

#### (I) The Integration perspective

This perspective considers culture to be largely determined by the behaviour and values of the leader and assumes that a culture develops which is based on the Founder's core beliefs and values. These core beliefs permeate the whole organisation and serve to influence the values and norms of behaviour of the majority of organisational members. There is an emphasis on homogeneity (of individual behaviour shaped by homogeneous values and attitudes) and organisational consensus within this perspective. The predominant theme within the integration perspective is that it is consensus that facilitates organisational effectiveness. Schein (1983, 1992) suggests that leaders of organisations can actively shape and manage a consensual, integrated organisational culture by implementing primary embedding mechanisms and secondary reinforcement or articulation mechanisms which symbolically reflect and are consistent with the dominant values held by the leader(s). For example, if an organisational leader wished to emphasise the importance of knowledge sharing as might be assumed in the case of expert consultancies, then mechanisms that consistently and mutually reinforced the importance placed on knowledge creation would according to Schein (1992), need to be introduced and promoted in the organisation.

Whilst there is considerable disagreement with the feasibility of the integration perspective, the approach Schein used to analyse culture, premised on analysing embedding and articulation mechanisms has been adopted (at least partially) by many researchers (cf. Pettigrew, 1979; Smircich, 1991; Kunda, 1992; Alvesson, 1995). For example, often in these studies, rituals, leadership behaviour, informal routines and other more physical symbolic artefacts such as the design of the physical space, are interpreted in order to analyse organisational culture.

Alvesson supports the idea that leaders should focus on promoting an organisational culture that fosters integration, in order to promote a strong corporate identity and counter disintegrative tendencies inherent within KIFs (Alvesson, 1992, 1993, 1995). These tendencies result from the particular structural conditions of the labour process. For example, KIFs are characterised by highly diversified and dispersed work activity (projects) and extensive decentralisation (knowledge workers operating mainly autonomously), which, in combination, Alvesson suggests, constrain social relations within the firm outside of project working. In attempting to counter these disintegrative tendencies then, management need to develop an approach to leadership that promotes a strong corporate identity and fosters social integration around knowledge workers organisational identity. By promoting for example, particular organisational rituals such as weekly social events outside of normal working hours, leisure time became part of corporate life and strengthens integration within the firm.

This influence is generally referred to within the literature as cultural or normative control which “affect the ways people perceive their work, organisation and themselves and the values, norms and emotions which guide them” (Alvesson, 1993:1011). The importance placed on the development of normative (cultural) control in KIFs has also been noted by many other researchers (Starbuck, 1992, Kunda, 1992). Mintzberg (1983) also recognised, when defining the adhocracy, that the development of normative control across the organisation was important. Significantly, normative control in the context of KIFs is considered to mediate the tensions arising from experts requirement for autonomy and the need to maintain organisational efficiency. Normative control is manifest in forms of self-discipline or practical autonomy (Willmott, 1993) that regulates normative identity and shapes behaviour in ways that support organisational efficiency. Importantly, Grey (1994) suggests that in the professionalised labour process (e.g. accountancy) normative control extends to the shaping of individual’s subjective identity or their sense of self. Efforts

directed towards securing a career in the profession over time, self-discipline the individual and shape and promote a sense of self as 'professional'. A professional subjective identity is not the same as organisational identity. For example, an individual may perceive themselves as scientists but this does not tie that individual into a particular organisation.

In fact it may actually serve to weaken ties with the organisation (Scarbrough, 1996). Other writers have emphasised the importance of organisational culture in firms specifically attempting to manage knowledge effectively (Walsh & Ungson, 1991; Wikström and Normann, 1994; Glynn, 1996; Grant, 1996a).

Starbuck (1992) however, suggests cultural homogeneity can actually constrain processes of knowledge creation. Homogeneity he argues, is required within a KIF to ensure that the autonomous teams of knowledge workers act ethically to meet performance standards.

However cultural control mechanisms such as established formal or informal routines Starbuck argues, may serve to inhibit individual behaviour as individuals adhere or conform to the cultural norms associated with such routines. There would therefore seem to be a delicate balance required within expert consultancies between the need for normative control which results in a degree of homogeneous behaviour and the need for diversity (characterised by heterogeneous behaviour) to stimulate creativity. This point has been reinforced by both Nonaka (1994) and Spender (1998). These researchers emphasise the need to develop and *manage* diversity in the organisation in order to enhance processes of knowledge creation.

It might then be relatively unproblematic to introduce diversity into an organisation by selecting individuals across a range of disciplines with differing skill levels and experiences. However, how this diversity is then managed in such a way as to also promote normative control appears to be a more problematic issue and one that will be addressed in the analysis.

Normative control is considered to facilitate the retention of experts (knowledge workers) as individuals' identity becomes tied in with corporate identity (Alvesson, 1995; Scarbrough, 1996). The retention of experts has already been shown to be important in terms of sustaining processes of knowledge creation. Hence, it follows that if organisational culture develops characterised by some, as yet unspecified degree of normative control, then this may serve to promote retention. Specifically, this discussion on the integration perspective suggests that organisational effectiveness is promoted by the development of a strong, shared organisational culture. In the context of KIFs in particular, researchers have argued that it is crucial for the management or leaders of these firms to develop normative (cultural) control in order to overcome some of the operational problems associated with significant levels of autonomy. This would suggest then that the integration perspective is highly relevant when analysing organisational culture within the case firms. If evidence can be found of common norms and values across the organisation that shape behaviour with regard to processes of knowledge creation, then normative control could be considered to be a condition that sustains processes of knowledge creation within expert consultancies.

#### (II) The Differentiation perspective

The differentiation perspective (Martin, 1992) rejects the notion of harmony and consensus and one prevailing organisational culture. Instead, this perspective highlights the existence of sub-cultures within organisations which co-exist in harmony, in conflict and indifferently with each other. This perspective brings notions of power to the fore and recognises conflicts of interest between different sub groups. It recognises that individuals may share particular values and attitudes premised on, for example, cultural norms that exist within their occupational or professional grouping. These values and attitudes will shape behaviour and potentially be incompatible and in conflict with the espoused dominant organisational values.

Researchers who adopt the differentiation perspective (c.f. Van Maanen, 1991; Rosen, 1991; Trice and Morand, 1992, Smircich, 1983) suggest that cultures can be and are shared within groups but not across entire organisations. They fundamentally reject then the notion of one, unifying culture existing across an organisation. Whilst not denying that organisational culture may improve effectiveness, these researchers argue that, “these ‘benefits’ are all too easily achieved in a manner that benefits some groups at the expense of others” (Martin, 1992: 102). Many studies that adopt the differentiation perspective focus on the multiple interpretations afforded to aspects of organisational culture provided by less privileged groups of workers, such as women or workers at the bottom of organisational hierarchies (Van Maanen, 1991; Rosen, 1991). Van Maanen’s study for example, considered the relationship between Disneyland ride operators and their supervisors whereby supervisors arbitrarily fired ride operators for what were considered to be ‘Mickey Mouse’ offences.

This perspective on organisational culture is also analytically useful. Within an expert consultancy sub-cultures may exist within and across particular areas of expertise, or between different types of worker i.e. expert consultants, support staff, the Founders and management. The presence of inconsonant sub-cultures may then potentially inhibit the development of substantive normative control within expert consultancies as particular sub-groups consciously reject certain dominant ideologies. As this is considered particularly vital in KIFs in order to overcome the potential efficiency problems associated with high levels of autonomy, then such sub-cultures may constrain processes of knowledge creation. In addition, if a degree of antagonism exists between different groups, this may also serve to constrain processes of knowledge creation which are grounded in knowledge sharing, co-operation and team work. The nature of intra-organisational relationships are clearly relevant to processes of knowledge creation and their role in sustaining processes of knowledge creation are considered more fully in the following

section. The cultural analysis will then consider any evidence in support of the differentiation perspective and assess what impact (if any) this has on the development of normative control and co-operation generally, with regard to knowledge sharing.

### (III) The Fragmentation perspective

The fragmentation perspective has been characterised by Martin as a “focus on ambiguity, complexity of relationships among manifestations, and a multiplicity of interpretations that do not coalesce into a stable consensus” (Martin, 1992:130). Ambiguity is a complex concept in itself. Martin suggests that there are three aspects of ambiguity, lack of clarity; complexity, and paradox. “A lack of clarity occurs because something seems obscure or indistinct, and therefore hard to decipher. Silences and absences can also create a lack of clarity. Something is highly complex because a plethora of elements and relationships make it difficult to comprehend in any way....A paradox is an argument that apparently derives contradictory conclusions by valid deductions from acceptable premises” (Martin, op.cit. p. 134). Ambiguity differs from uncertainty in that it cannot be clarified by gathering more data or information. Any existing or new data and information will support multiple interpretations (Feldman, 1989). Ambiguity exists then “when there is no clear interpretation of a phenomenon or set of events”(Feldman, 1991:146). If culture is considered from the fragmentation perspective then differences in interpretation regarding what constitutes the organisational culture are seen as inevitable and irreconcilable. Organisational members will share some viewpoints, disagree about some and be unaware or indifferent to others. Consensus, dissensus and confusion will all coexist within the organisational, making it difficult to draw cultural and sub-cultural boundaries (Martin, 1992).

The advantages of the fragmentation perspective then are that it allows for a conceptualisation of differentiation that actually legitimates it. Differentiation is not acknowledged within the integrationist perspective and most studies of organisational sub-

cultures, whilst acknowledging it, characterise it as subversive to the overall organisational culture. However, the fragmentation perspective highlights that agreement and disagreement about “the way things are” will always be context dependent. Whilst some previous research studies have highlighted ambiguity, it has tended to be treated as an abnormal or an ephemeral organisational condition. For example, Weick’s (1991) study of the Tenerife air disaster and Perrow’s (1984) analysis of the Three Mile Island nuclear reactor incident highlighted the serious negative consequences of ambiguity. Cultural ambiguity is also often associated with new start-up companies and is considered to exist as an organisational state prior to an established organisational culture developing (Meyerson, 1991b). There have been several studies that focus on the effects of ambiguity on particular aspects of organising e.g. decision-making and management (March & Olsen, 1976; Cohen & March, 1986; Sproull, Weiner & Wolf, 1978). However, few studies have legitimated ambiguity as a natural organisational condition (a pertinent exception to this is however, Meyerson, 1991b).

Martin identifies three types of organisational ambiguity - action, symbolic and ideological ambiguity. Action ambiguity results from confusion about espoused values and actual practices. For example, experimentation may be encouraged but not directly rewarded. Symbolic ambiguity results from inconsistent relationships between themes and cultural forms. For example, the design of physical space may be supposed to reflect egalitarianism, whereas in reality it may actually reflect status divides. Ideological ambiguity refers to the ambiguities that may be present within an organisational philosophy. For example, the dominant espoused values of the firm may be inconsistent. Schein (1992), when adopting the integration perspective, suggests that it is both feasible and operationally possible to develop and shape an organisational culture in which cultural mechanisms are consistent and mutually self-reinforcing leading to transparent organisational values and ideologies and normative control. However, a degree of

ambiguity and inconsistency is inevitable within organisations as management attempt to deal with environmental and internal complexity and uncertainty and this tends to be ignored in Schein's work (Schein, 1983, 1992).

Evidently then, there exists some degree of ambiguity in all organisations. The fragmentation perspective focuses on organisational ambiguity and research that has adopted this perspective (Meyerson, 1991b) has considered organisations where ambiguity was an inherent aspect of organising. It is important to note here, that whilst adopting this perspective these researchers do acknowledge that despite a lack of consensus, organisational members do tend to share an overarching purpose or common frame of reference which allows organisational members to contend that they do belong to a culture (Meyerson, 1991b; Feldman, 1991).

Individual reaction to and interpretation of ambiguity will differ (Martin, 1992). As Feldman states "The meaning of ambiguity is not the same as the ambiguity itself"(1991:146). Some individuals will oppose it, others will be ambivalent to its presence and a third group will actually enjoy ambiguity. Early personality research indicated that some individuals could tolerate significantly higher levels of ambiguity than others (Kahn et al., 1964; Rokeach, 1960). This research was however limited to a focus on role ambiguity, considered to be a significant source of individual job related stress (Rizzo, House,& Lirtzman, 1970). Martin and Meyerson (1988) suggest that within some organisational contexts, such as start-up firms and R&D laboratories, individuals, rather than simply tolerating ambiguity, are comfortable with ambiguity and enjoy the ephemeral organisational conditions associated with ambiguity. The evidence in support of this assertion however is somewhat limited (cf. Peters and Waterman, 1987, Pascale & Athos, 1990). In start up firms, individuals may not actually enjoy ambiguity but simply tolerate it as a temporary state prior to the development of an established culture. Other researchers have suggested that ambiguity is typically problematic in organisatons (McCaskey, 1982).

Reactions to ambiguity will largely be determined by the individuals' tolerance of cognitive dissonance (Festinger, 1957). Cognitive dissonance is generated when cognitive elements (attitudes) are not consistent with behaviour characteristic of ambiguous situations. As Festinger states "elements of cognition correspond for the most part with what the person actually does or feels or with what actually exists in the environment. In the case of opinions, beliefs, and values, the reality may be what others think or do; in other instances the reality may be what is encountered experientially or what others have told" (1957:11). However, often individuals are faced with cognitive elements that deviate markedly from the individual's perception of reality, resulting in cognitive dissonance. Organisational ambiguity then is a prime example of the conditions necessary to stimulate within organisational members, significant levels of cognitive dissonance.

Festinger (1957) suggests that all individuals are motivated to act in a manner that reduces the cognitive dissonance and highlighted several ways that cognitive dissonance could be reduced. For example, individuals could choose to change their feelings or behaviour about something to reduce dissonance. This is more likely to occur if rewards or punishments are directly associated with feeling or behaving in such a way that the cognitive elements are perceived consonant. Alternatively, individuals could actively seek new information about one of the dissonant elements, in order to reduce the dissonance between elements. All individuals experience cognitive dissonance at times. However, importantly some individuals are better able to accommodate it because they are able and prepared to use a variety of psychological behaviours to reduce the dissonance. This suggests that in organisations where ambiguity is considered 'normal' (Meyerson, 1991b), organisational members have developed their own cognitive patterns and behaviours to reduce dissonance. For example, in Meyerson's study, hospital social workers often used cynicism as a coping mechanism, in order to reduce the dissonance experienced in situations where their lack of authority prevented them from taking action. Ambiguity as an inherent

organisational condition also allows individuals to act in multiple ways such that whatever way the individual behaves can be aligned with some attitude. In this way dissonance is minimised.

The fragmentation perspective is particularly relevant to the research here as Martin and Meyerson suggest “it may provide the key to understanding the processes of innovation” (1988:119). Building on the work of Weick (1979, 1985), March (1975) and Brunsson (1985) they suggest that in an environment characteristic of an adhocracy, where there is little or no formalisation, loosely coupled actions and outcomes, then there is very little risk of behaving or acting wrongly. Without this fear of failure organisational members, can be relatively unconstrained in their behaviour and this they suggest, facilitates creativity. This assertion follows from Weick’s fundamental ideas about ambiguity and sensemaking in organisations “An organisation can learn new things about itself and about its environment when ambiguity is present. If an organisation continues to act even though it doesn’t know for certain what it is doing, there is a chance that the organisation will emerge from its confrontation with ambiguity in slightly different shape than when it started to cope. In this way ambiguity can produce innovation and greater utilisation of resources”. (Weick, 1985:125).

Weick here is suggesting that ambiguity promotes creativity. However, sensemaking will actually reduce that ambiguity implying that this might only be a temporary condition.

Martin & Meyerson (1988) suggest however, that in organisations which focus on knowledge creation, rather than denying, challenging or simply coping with ambiguity, it should be acknowledged, legitimated and made the focus of attention by management. The fragmentation perspective then highlights the potential for organisational ambiguity to facilitate creativity and this research here aims to consider how ambiguity might be legitimated and made the focus of attention. This does however raise interesting questions again about ‘managing’ in this organisational context. Whilst ambiguity might provide an

environment conducive to creativity, some minimal consideration at least must be given to efficiency criteria in order for the firm to survive. If those responsible for innovation need not fear failure, are any sanctions imposed upon them and in what circumstances? Is creativity in these organisational contexts rewarded or simply expected as part of the normal work process? These issues apply in the context of expert consultancies, where knowledge creation is a conscious strategy. Hence the cultural analysis will explore conditions and behaviours in support of this perspective and if any are found, consider the implications of this for ‘managing’ and sustaining processes of knowledge creation. The perspectives discussed in the previous three sections have been summarised by Martin (1992) and are shown in Table 2.3 below.

<b>Perspective</b>	<b>Integration</b>	<b>Differentiation</b>	<b>Fragmentation</b>
Orientation to consensus	Organisation-wide consensus	Subcultural consensus	Multiplicity of views (no consensus)
Relation among manifestations	Consistency	Inconsistency	Complexity (not clearly consistent or inconsistent)
Orientation to ambiguity	Exclude it	Channel it outside subcultures	Focus on it
Metaphors	Clearing in jungle, monolith, hologram	Islands of clarity in sea of ambiguity	Web, jungle

**Table 2.3 Defining characteristics of the three perspectives (Martin 1992:13)**

When analysing culture then, evidence will be sought across all three perspectives and consideration given to the role of culture in sustaining processes of knowledge creation.

Having considered the evidence in support of each of the three perspectives, an assessment will be made as to the ‘home’ perspective’ - “the viewpoint that comes most easily to mind when a particular person regards a particular cultural configuration. It seems to be the most obvious, accurate, or appropriate way to view the culture” (Martin, 1992:177). If the leaders of firms have consciously attempted to promote this perspective, then it can be argued that their efforts to shape and develop organisational culture will have in some sense been successful. This approach is considered by some researchers to exemplify a

strategy of 'cultural engineering' (Kunda, 1992, Alvesson, 1996). "Ideas about what exists, what is good and what should be accomplished are being communicated by management" (Alvesson, 1996:67).

Whether the leaders of the case firms have consciously engaged in 'cultural engineering' or the active 'management of meaning' will also be explored in the empirical analysis. By applying different cultural perspectives to KIFs, this research will then, extend and contribute to this area by establishing what relationships might exist between different cultural perspectives and the management of knowledge workers.

#### **2.8.4 Structure of the cultural analysis**

When interpreting the culture in each case study firm Schein's framework (but not an integrationist perspective) will be used (Schein, 1985, 1992). Alvesson (1995) provides a symbolic interpretative analysis of organisational culture within a KIF by exploring and interpreting perceptions of several of the mechanisms identified by Schein e.g. leadership behaviour, organisational design, organisational rites, the design of the physical space etc. Many of these mechanisms have also already been discussed in previous sections as potential facilitators of processes of knowledge creation (see section 2.7). A cultural analysis using aspects of this framework then has the potential to identify what relationship (if any) exists, between organisational culture, more tangible organisational attributes (e.g. organisational configuration) and processes of knowledge creation. Whilst this framework is premised on the integration perspective, it does not preclude other perspectives. A symbolic interpretation of the mechanisms suggested by Schein (1992) can also allow for a cultural analysis illustrative of all three perspectives, when for example, individuals offer differing or ambiguous perceptions of these mechanisms. Table 2.4 illustrates this framework.

Primary embedding mechanisms	Secondary articulation and reinforcement mechanisms
What leaders pay attention to, measure, and control on a regular basis	Organisation design and structure Organisation systems and procedures Organisational rites and rituals Design of physical space, facades and buildings Stories, legends and myths about people and events Formal statements of organisational philosophy, values and creed
How leaders react to critical incidents and organisational crisis	
Observed criteria by which leaders allocate scarce resources	
Deliberate role modeling, teaching and coaching	
Observed criteria by which leaders allocate rewards and status	
Observed criteria by which leaders recruit, select, promote, retire and excommunicate organisational members	

**Table 2.4 Culture-Embedding and articulation mechanisms (Schein, 1992:231).**

This framework will be used then to structure the cultural analysis of each of the case study firms. These mechanisms are now considered specifically in relation to expert consultancies.

(i) What leaders pay attention to, measure and control

Expert consultancies compete on the basis of their ability to be creative and innovative. It might be expected then that within the case firms the leaders would pay attention to the rate at which inventions and innovations were successfully developed and attempts would be made to measure and control this process. However, as previously highlighted, processes of knowledge creation are inherently problematic to ‘manage’ and expert consultants demand autonomy. How this tension is resolved, what control systems or procedures exist and how individuals interpret these will all be considered in the cultural analysis.

(ii) Leaders reaction to critical incidents

Acknowledging that definitions of crisis are subjectively perceived, Schein (1992) suggests that crises are important in shaping culture because of the heightened emotional involvement during such periods, which increases the intensity of learning. Anxiety is

heightened during a period of crisis and actions that are taken which reduce anxiety tend to be remembered and considered relevant to organisational efficiency. The interpretation afforded to any critical incidents that have occurred during each firms' development and their impact on shaping organisational culture will be considered in the analyses of the case firms.

(iii) Observed criteria for resource allocation

Schein states "leaders beliefs about the distinctive competence of their organisation, acceptable levels of financial risks, and the degree to which the organisation must be financially self-sufficient strongly influence their choice of goals, the means to accomplish them, and the management processes to be used" (1992:240). It will be relevant then to consider what resources are made available to expert consultants and the way these are allocated. Sufficient resources have previously been discussed as facilitating processes of knowledge creation. It will be relevant therefore to analyse the way in which resources are allocated and individuals' interpretation of this process.

(iv) Deliberate role modelling, teaching and coaching

Observable behaviour is an important mechanism for communicating assumptions and values to organisational members, particularly new recruits to the organisation. Project team working in expert consultancies requires individuals to share their knowledge with others in order to create new knowledge. Knowledge sharing is expected therefore to be valued in this organisational context. The way if any, in which organisational members (particularly new recruits) are taught or coached to share their knowledge will therefore be considered.

(v) Observed criteria for allocation of rewards and status

Schein (1992) suggests that leaders of an organisation can communicate their own values and assumptions effectively by consistently linking rewards and punishments to the behaviour they are most concerned with. The approach used to manage performance at an

organisational and individual level within expert consultancies may be problematic however, given the inherent complexity and uncertainty of processes of knowledge creation. What approaches are taken and individuals' interpretation of the manner in which performance is managed will therefore be considered.

(vi) Observed criteria for recruitment, selection etc.

Schein (1992) states that one of the most potent ways through which cultural assumptions become embedded and perpetuated is through the selection of new organisational members. Founders are concerned with selecting people who will 'fit in'. That is, people who they perceive to be similar in terms of background, values and assumptions. If the selection process works well, Schein suggests that the Founders' values and assumptions are further reinforced by the individuals working within the organisation. These basic assumptions are subsequently reinforced by the criteria that are employed to determine who gets promoted, or retired or excommunicated. However, it has already been shown that processes of knowledge creation are facilitated by diversity (section 2.2). It will be important then to consider how expert consultants are recruited and selected (what personal attributes are sought, etc.) and focus on the outcome of this process in terms of the degree of diversity or homogeneity that exists across the workforce within the case study firms.

These six mechanisms are focused on the symbolic meaning derived from leadership behaviour. Schein (1992) assumes that leaders of organisations have significant latitude with regard to their design and implementation. Leadership behaviour however may be mediated and constrained to some extent, particularly within an expert consultancy, recognising that within this context expert consultants are afforded significant autonomy. To what extent then, the leaders of the case study firms have been able to design and implement mutually reinforcing mechanisms and the way in which these are perceived by organisational members will be considered in the cultural analysis of each case firm.

The secondary mechanisms are concerned with the symbolic meaning afforded to more tangible, cultural, representational forms. If these secondary mechanisms are inconsistent with the dominant ideologies of the leader then they will either be ignored or will be a source of internal conflict, as individuals attempt to deal with the ambiguity. Given the previous discussion on the fragmentation perspective (Martin, 1992) this might not necessarily be the case, particularly in the context of expert consultancies. In the cultural analysis then, consideration will be given to individuals' interpretation of the degree of consistency that exists between the primary and secondary mechanisms, together with the interpretations afforded to the secondary mechanisms themselves.

(i) Organisational design and structure

Schein (1992) asserts that it is the Founder who determines at what level decision making occurs within the organisation and how stable or flexible the organisational structure will be. Both of these communicate powerfully the underlying values and assumptions of the Founder. They are a symbolic reflection of the generic mode of organising within the firm. In an expert consultancy, a flexible, highly decentralised structure characteristic of the adhocracy (Mintzberg, 1983) is considered to facilitate processes of knowledge creation. Hence, it will be important to consider to what extent the organisational structure of the case firms equates to adhocracy and consider individual's interpretation of structure.

(ii) Organisational systems and procedures

Schein suggests that organisational members need or require the predictability of routines. This assertion however is somewhat vague and again over generalises with regard to individuals' requirements for stability and predictability. In the case of expert consultancies, low formalisation is considered to facilitate processes of knowledge creation. It might be expected then that in this particular context, few systems and procedures would actually exist and expert consultants may actually prefer a minimum of routines. What perceptions organisational members have of organisational systems and

procedures that do exist however, will be considered and their role in shaping organisational culture will be discussed.

### (iii) Rites and rituals

Rituals need to be considered in conjunction with other symbolic attributes, if their meaning is to be interpreted. Schein suggests that where leaders are able to ritualise certain behaviour that is considered important, then the ritual becomes a powerful reinforcer of organisational culture. Rituals serve to articulate vision in so far as they articulate meaning in a particular social situation. Rituals can articulate “the central and peripheral values, the dominant or marginal people, the highly prized or less important goals and activities” (Pettigrew, 1979:576). Rituals are thus useful vehicles for providing shared experience within the organisation and reinforcing what is valued to organisational members.

Alvesson (1995) considered rites and rituals to be particularly important cultural mechanism in his study of a KIF. What rituals exist in the case firms and how these are perceived by consultants will be explored in the cultural analysis.

### (iv) Design of physical space, facades and buildings

The design of the physical space the organisation occupies can only reinforce organisational culture, when the leaders or Founders of the organisation have been able to manage the design or choose the physical location themselves. In both case firms, the Founders chose the firms’ location(s) and managed the design, therefore it will be relevant to analyse individuals’ perceptions of the design of the physical environment within both of the case firms.

### (v) Stories about important events and people

As an organisation develops a history, stories emerge around particular events and people. However that these stories are necessarily, when communicated, distilled and often ambiguous. This suggests that their meaning and their potency as a reinforcement mechanism is fairly weak (Schein, 1992). The stories may also be inconsistent as leaders

cannot control what is said. Thus the desired message may not always be the one that is communicated within the organisation. This is one of the few occasions that Schein acknowledges that the Founders or leaders of organisations do not have complete control over the development of organisational culture and recognises other political interests. Pettigrew (1979) also acknowledges the potency of myths with regard to sustaining values that underlie political interests. The content and source of any myths or stories about particular individuals or events will be considered and interpreted in the analyses of the case firms.

(vi) Formal statements of organisational philosophy etc.

The leaders or Founders of an organisation are free to state what their values and assumptions are concerning the organisation. However, only the most explicit aspects of organisational philosophy can be articulated, the subtle nuances of behaviour or modes of organising required to reinforce underlying assumptions on which the organisational culture is based, are difficult to articulate. Hence, formal statements are limited in their capacity to reinforce dominant organisational values (Schein, 1992). Evidence of formal mission statements will be sought however, and the interpretations afforded to mission statements will be discussed in the cultural analysis of the case firms.

It is important here to emphasise the limitations of frameworks for cultural analysis. It is assumed in this research that as the case study firms are relatively young and are still led primarily by their Founders that these mechanisms were fundamentally shaped by them, acknowledging however that these mechanisms may have changed over time and been shaped by others within the firms. It is also important to acknowledge that culture can only ever be subjectively perceived (Martin and Meyerson, 1988; Martin, 1992). Schein's framework and approach fails to acknowledge then multiple interpretations that might be attributed to particular embedding or articulation mechanisms by different individuals within an organisation. Behaviour is shaped by individual interpretation of the symbolic

meaning of the mechanism, not the mechanism per se. For example, a particular mechanism such as organisational configuration may be perceived by one individual to symbolically represent egalitarianism. To another however, this mechanism may be perceived to be representative of status divides. The analysis using this framework will then, rather than assuming consensual interpretations, consider multiple interpretations of the same mechanism.

In addition, it is important to recognise that over time as organisational culture becomes embedded, it becomes more problematic for leaders to consider affecting change to the organisational culture. Alvesson (1992) acknowledges that leadership style can ultimately become constrained by the cultural and ideological context prevailing within the organisation. This suggests that as a firm develops and evolves, leadership itself may become a product of the organisational culture. By adopting aspects of this framework and acknowledging multiple perspectives on culture then, the analysis aims to interpret the role of organisational culture in sustaining processes of knowledge creation within the case firms.

### **2.9 The potential role of power and trust in processes of knowledge creation.**

Within expert consultancies, processes of knowledge creation require concerted, co-ordinated effort by consultants focused on providing customised, innovative solutions to satisfy client requirements. It has been shown that processes of knowledge creation rely on the combination, integration and synthesis of different types of individual and social knowledge (c.f. Nonaka, 1994; Spender, 1996). For this to occur there needs to be significant levels of co-operation existing between individuals and groups across the organisation. Co-operation and co-ordination between individuals and groups is influenced by both power (c.f. Mumby, 1988) and trust (c.f. Axelrod, 1984; Granovetter, 1985). These issues have received insufficient attention in the literature to date in relation to processes of knowledge creation. In the following two sub-sections some of the literature on power and

trust is explored and consideration is given to its potential utility for understanding the way in which knowledge creation is sustained within expert consultancies.

### **2.9.1 The potential role of power in processes of knowledge creation**

Thus far there have been many references to knowledge workers' and professionals' inherent demands for high levels of autonomy, implying that power relations are de-emphasised or possibly problematic (contested) within organisational contexts that are populated by this type of worker. For example, Blau and Scott state "When the over-all responsibility of the organization cannot be broken down into fairly routine specialized tasks...expert judgements of professionals rather than disciplined compliance with the commands of superiors must govern operations in the interests of efficiency" (1963:247). In the context of expert consultancies then, workers will be exercising such judgements and organisational efficiency will primarily be reliant on the successful outcome of project working, determined by the behaviour and actions of expert consultants. How power and control are manifest then within this organisational context and in what ways might power mediate processes of knowledge creation has received insufficient attention in the literature to date on knowledge work.

Mainstream organisational theory literature on power adopts a narrow functionalist, conservative view of power that seeks to explain notions of power, using a purposeful, rational perspective (Mumby, 1988). This body of literature has predominantly focused on the way that power is legitimated and used in organisations by virtue of hierarchical position and organisational relationships (c.f. Weber, 1947) or, has been "restricted to the mobilization of resource dependencies and to defensive manoeuvres undertaken in response to conflict" (Hardy, 1996: 6). For example, much of Pfeffer's work (1981, 1992) focuses on sources of power (generating resource dependencies) and strategies for employing power to achieve particular results. Pfeffer's definition of power "as the potential ability to influence behaviour, to change the course of events, to overcome

resistance, and to get people to do things that they would not otherwise do”(1992:30) has an evident functionalist, purposeful bias.

This functionalist view of power has however, been criticised by several authors (Lukes, 1974; Mumby, 1988; Hardy, 1996; Alvesson, 1996) because of its primary focus purely on individual and behavioural factors (Alvesson, 1996). Several important issues are not recognised within the functionalist perspective. For example, no consideration is given to the use of power unconsciously by individuals or the use of power to shape people’s needs and values rather than to overcome conflict. The functionalist perspective can only therefore provide limited explanatory power, for understanding behaviour in organisations and in the context of expert consultancies is generally insufficient. For example, within expert consultancies, formal structure and issues of power and conflict are expected to be de-emphasised (particularly by leaders or managers) in line with the characteristic attributes of an adhocracy. Importantly, as discussed in the previous section, normative forms of control that promote self-discipline, referred to as symbolic power (Kunda, 1992) are considered to be significant within this context. This may preclude the need to use more overt forms of coercive or relational power. The functionalist perspective on power tends to ignore this particular form of power. Power relations are significant in shaping behaviour to a lesser or greater extent in all organisational contexts, despite an ambivalence generally towards power in many organisational studies (Pfeffer, 1992). Therefore a perspective on power that embeds power not only in relations between individuals but also within organisational structure, processes and norms, is relevant to the research presented here.

Those authors that reject the functionalist perspective draw generally upon the work of Lukes (1974) to posit a more complex, multi-dimensional perspective on power.

Importantly, in addition to recognising the more common dimensions of power for example, resource dependency or relational power (Dahl, 1957; Bachrach and Baratz,

1962), Lukes work considers the power of meaning - the power of organisational culture to perpetuate norms of behaviour and the status quo. From this perspective, power is exercised by the dominant elite, not simply to overcome conflict but also to actively shape individuals' behaviour, attitudes and needs. Those in positions of power have access to particular resources which can serve to shape and define reality for others, particularly within an organisational context (Alvesson, 1996). In developing normative control then, leaders or managers of organisations accentuate those aspects of the organisational environment that support and reinforce espoused dominant values and norms and de-emphasise those that contradict the espoused dominant ideology. Power is exercised then through the symbolic action of leaders as they indulge in the 'management of meaning' (Alvesson, 1996).

It is important to acknowledge however that this is not necessarily or always a conscious, deliberate activity. Leaders may exert influence over others simply by virtue of their position within the organisation, without any conscious desire or intended decision making on their part. Power from this perspective then "is the socially constructed and culturally patterned behaviour of groups, and practices of institutions, which may indeed be manifested by individuals' inaction" (Lukes, 1974:22). In this case the exercise of power serves not to reduce conflict but to prevent conflict from actually occurring. "Social actors are not likely to complain about situations that they consider to be part of the natural order of things" (Mumby, 1988). At the same time, power can also be vested in organisational ideology that not only serves to mediate and shape the behaviour of organisational members but also the dominant elite as discussed in the previous section on culture. "Ideologies and mechanisms may exercise power beyond the intentions or control of the elite, who benefit from dominating forms of power but who are also subjected to them. Managers, for example, may be subordinated to cultural ideas and values which they take for granted" (Alvesson, 1996:64). In the case of expert consultancies for example,

dominant ideology may emphasise egalitarianism, the power of which serves then to mediate and constrain leaders behaviour towards expert consultants.

Both Mumby (1988) and Alvesson (1996) build on Lukes (1974) work and conceptualise power in terms of the structuration process, "*organizational power is constituted and reproduced through the structure of organisational symbolism*" (Mumby,1988:66 italics author's own). This perspective is particularly useful for the empirical research here because a focus of enquiry is the inter-relationship between power and organisational culture in sustaining processes of knowledge creation that has not been addressed in research to date.

Bearing these points in mind, Lukes (1974) multi-perspective approach highlights three dimensions of power, all of which will be considered in the empirical analysis. The first dimension of power is power of resources. This first dimension is accommodated within the functionalist perspective on power insofar as individuals possess power of resources and can influence decision outcomes by virtue of their control over particular key resources on which others depend, which may or may not be associated with their position within the organisation. For example, a source of resource power, is the ability to reward or punish others, which in organisations tends to be related to organisational position. Power of resources suggests that individuals are motivated to shape their behaviour according to the rewards offered or sanctions imposed. The influence of power of resources is however strictly limited because it is highly task orientated (Hardy, 1996) and cannot affect behaviour more generally. It is difficult to estimate whether rewards or sanctions would significantly influence processes of knowledge creation within an expert consultancy. For example, what rewards or sanctions could be allocated or imposed that would encourage expert consultants to behave in ways that promoted efficient, co-ordinated action? The task of knowledge creation is inherently complex and potentially problematic and there can be no guarantee of successful outcomes. Thus it is unlikely that rewards and sanctions can be

used so directly. Expertise however is also a source of resource power. It will be important therefore in the analysis to consider what influence expertise as a resource has within expert consultancies, when expertise is prevalent (rather than a scarce resource) throughout the organisation.

The second dimension is power of processes (Lukes, 1974) which focuses attention on the participants to and actions resulting from decision making processes within the firm. The effect of this power is to “mobilise bias” (Bachrach & Baratz, 1962) so that only issues that are considered important or relevant by powerful organisational actors are open to question or debate and then only by those individuals the powerful wish to include. This dimension highlights the backstage political manoeuvring that occurs within organisations and draws attention to the fact that the most visible decision makers are not necessarily the most powerful (Hardy, 1996). In the case of expert consultancies, where generally low levels of formalisation are predicted, it will be particularly relevant here to consider who decides the composition of project teams and what effect this may have on processes of knowledge creation. Knowledge creation processes are constrained if appropriate skills and knowledge are not available. This situation could occur because of lack of awareness of the precise nature of individuals’ expertise. Alternatively, individual choice or bias may influence the composition of project teams. Those responsible for deciding the composition of project teams may exercise power of processes then, potentially constraining processes of knowledge creation.

The third dimension that Lukes (1974) identified is power of meaning which, as discussed focuses on the way power is used to shape cognition’s, perceptions and preferences so that the status quo remains uncontested and organisational culture is reinforced. Symbolic action i.e the implementation and promotion of cultural mechanisms (Schein, 1992) is particularly relevant here. This dimension highlights the potentially broad scope and influence of power of meaning throughout a firm in shaping behaviour. The previous

discussion on organisational culture considered the importance of individual's interpretation of various cultural mechanisms in shaping organisational culture and vice versa. It was noted that individuals are free to interpret these mechanisms in whatever way they see fit and shape behaviour accordingly. This suggested that consensus (characteristic of the integration perspective) is not the inevitable outcome of leadership actions and decision making. Power of meaning however, could be considered to play an important role in sustaining knowledge creation, if dominant ideology within the firm actually shapes norms of behaviour in ways that sustain processes of knowledge creation.

The literature on power considered here suggests that different dimensions of power potentially influence processes of knowledge creation both in ways that could constrain or facilitate processes of knowledge creation. The role of different dimensions of power then in processes of knowledge creation will be considered in the analysis.

In the final sub-section, the issue of trust and the role of trust relations in processes of knowledge creation is considered.

### **2.9.2 The potential role of trust in processes of knowledge creation**

There is a diverse and broad field of literature that focuses on co-operation within and between organisations, not only in the field of organisational theory but also in the disciplines of economics, sociology and the political sciences. Smith et al (1991) define co-operation generically as being "the process by which individuals, groups and organizations come together, interact, and form psychological relationships for mutual gain or benefit" (1995:10). Interaction however needs to be considered in dynamic terms. There needs to be willingness on the part of individuals to sustain interaction and maintain co-operative relationships with others for substantive benefits to accrue. Ring and Van de Ven (1994) define co-operative relationships as "socially contrived mechanisms for collective action, which are continually shaped and restructured by actions and symbolic interpretations of the parties involved" (1994:96). This definition highlights the way in which co-operative

relationships are perpetually renegotiated in the light of each parties actions and behaviour. In the context of an expert consultancy, it is assumed that the co-operative relationships that exist (necessary for processes of knowledge creation) are informal rather than formal. That is, norms of behaviour rather than contractual obligations determine the degree of co-operation between parties. Expert consultants cannot be forced to co-operate contractually. However, they are expected to co-operate with each other (e.g. willing to share their personal knowledge with others), particularly within the context of project team working. Expected norms of behaviour as previously discussed are shaped by organisational culture. Evidently then there exists an inter-relationship between the general levels of co-operation that exist within the firm and organisational culture. In order to more fully understand the potency of this interaction, it is necessary to consider the role of trust, because this construct is considered by some to be the most immediate and critical antecedent of co-operative behaviour (Smith et al, 1995).

Ring and Van de Ven (1994) however suggest that trust is a consequence of co-operative behaviour. Trust is premised on an individuals' confidence in the goodwill and moral integrity of others, "which is produced through interpersonal interaction that lead to social-psychological bonds of mutual norms, sentiments and friendships" (1994:93). As a result of trust existing between two parties then, mutual norms and sentiments develop which express confidence that each party, without the need for monitoring or control, will not be put at risk by the actions of the other party. Evidently, for some basic level of co-operation there needs to exist some basic level of trust between parties. Ring and Van de Ven's definition however, highlights the way levels of trust may increase as a consequence of ongoing co-operative behaviour.

Co-operative behaviour based on trust is, so it is claimed, more likely to result in effective co-ordinated action (Jones & George,1998). Within project team working there is clearly a strong relationship between co-operation, trust and effective co-ordinated action. If trust

exists amongst team members, then they are more likely to co-operate with one another, affecting purposeful co-ordinated action. Importantly, Thompson (1967) observed that under conditions of uncertainty or complexity (an inherent aspect of processes of knowledge creation where outcomes cannot be predicted), sustained effective co-ordinated action is only possible where there is trust. In the case of expert consultants, it has been assumed from existing literature (c.f. Alvesson, 1993; Starbuck, 1992; Lowendahl, 1997) that project team working will be predominantly self-managed, acknowledging the demands for autonomy within this context. The role of trust then is potentially even more crucial in a context where the primary tasks are inherently uncertain and complex and formal control is de-emphasised.

Interest in trust and co-operation as a field of enquiry within organisational theory has grown in recent years (c.f. Kramer & Tyler, 1996). There has been increasing recognition of the importance of these constructs for inter, as well as intra-organisational relationships within new emergent organisational and structural forms e.g. the network organisation, the delayed (flat) organisation etc. The literature on trust is now both broad and diverse and could be the subject of a research dissertation in its own right. However, for the purposes of this research, the scope of enquiry and discussion here is limited to those aspects of the literature that have specifically focused on the development and evolution of different forms of trust across professionals and within self-managed project teams. With this caveat in mind, the work of McAllister (1995) and Jones and George (1998) is particularly relevant here.

Mc Allister (1995) refers to two types of trust between professionals - cognitive and affect based. His study was based on 120 senior managers, most of whom were professionals drawn from across a range of industries. Cognitive-based trust is based on assessment of evidence of trustworthiness. Evidence is gleaned from individual perceptions of competence, responsibility, reliability and dependability (Zucker, 1986). Affect-based trust

consists of emotional bonds between individuals, highlighting personal relationships and exemplified in behaviour when individuals express care and concern for other parties in the trust based relationship. McAllister's research considered the relationship between these two types of trust and what impact this had on interpersonal behaviour between professionals. McAllister asserts that displays of altruistic behaviour in professionals and frequent interaction facilitated the development of personal relationships and affect based trust. Altruistic behaviour is defined as behaviour that may be outside an individuals' work role, not directly rewarded and conducive to organisational functioning "directly aimed at helping a specific person in face-to-face situations" (Smith et al , 1983:657). When high levels of affect based trust existed between parties then particular behaviours were highlighted. For example, the parties involved would engage in more need-based monitoring and interpersonal citizenship behaviour. Need-based monitoring occurs when individuals keep track of others needs and take on others problems as their own. This behaviour is considered to lead to more interpersonal citizenship behaviour i.e. greater altruistic behaviour between the parties involved.

McAllister's work is pertinent to this research as it emphasises the important role of affect based trust existing between professionals which stimulates co-operative behaviour and promotes further development of affect-based trust. Where there existed high affect-based trust, McAllister found that individuals actively sought occasions to meet others' work-related needs and to intervene productively in others' tasks. Knowledge creation processes are complex and reciprocal interdependence is an inherent aspect of this type of work.

Thus this research suggests then that high trust relations characterised by affect based trust may facilitate processes of knowledge creation by rendering the process more efficient as individuals strive to be co-operative. McAllister's work highlights that affect based trust is manifest in particular types of altruistic behaviour which are observable. The empirical

analysis will consider then whether individuals engaged in this type of altruistic behaviour and explore the implications of this for processes of knowledge creation.

Recent work by Jones & George (1998) focuses on the development of conditional and unconditional trust in organisations and their influence on co-operative team working.

Their definitions of these constructs are very similar to McAllister's definitions of cognitive and affect based trust. Conditional trust "is a state of trust in which both parties are willing to transact with each other, as long as each behaves appropriately, uses a similar interpretive schema to define the situation, and can take the role of the other" (1998:536). Conditional trust is primarily cognitive then, based on positive expectations of others and is generally sufficient to ensure future interaction between parties. This type of trust is common in organisations. Unconditional trust, Jones and George assert is a more intense form of trust "because shared values now structure the social situation and become the primary vehicle through which those individuals experience trust" (1998:536). This suggest that unconditional trust is primarily affect based (McAllister, 1995) and it develops in firms with strong organisational cultures (Lewicki and Bunker,1996). If organisational culture is such that the majority of organisational members share the same dominant values, then the environment is one that is characterised by shared organisational identity and this promotes the development of unconditional trust. This research is analytically useful here because it suggests that where unconditional trust exists, then individuals may be more likely to work towards the common good, investing in the future generally, rather than focusing on the present, and that this stimulates social interaction and creativity (Isen, Daubman, & Nowicki, 1987). Jones and George (1998) also suggest that unconditional trust is manifest in certain types of behaviour including help-seeking, high confidence in others and the free exchange of knowledge

Again, there are parallels here with the work of McAllister (1995). Where high levels of affect based trust existed, professionals were more likely to engage in altruistic, communal

behaviour with each other which is consistent with social processes such as communal relationships, high confidence in others and the free exchange of knowledge and information. Jones & George suggest that unconditional trust within self-managed teams encourages help-seeking behaviour. This is important because a barrier to learning in KIFs is said to be individuals' unwillingness to display knowledge deficiencies (Starbuck, 1992). Jones & George however, suggest that when unconditional trust develops, typical constraints preventing people from seeking help such as, not wanting to appear inadequate, not wanting to be indebted to another, are removed. "Feelings of indebtedness are irrelevant... Seeking help is not threatening under unconditional trust because interdependence is seen as a positive force" (1998:541). It will be pertinent then to assess to what extent expert consultants engage in help-seeking behaviour as a manifestation of unconditional trust relations existing within each of the case firms.

In addition, Jones and George (1998) suggest that the existence of unconditional trust between team members facilitates the development of collective knowledge (Spender, 1996) through the free sharing and exchange of information and knowledge. As collective knowledge is considered to facilitate processes of knowledge creation (Spender, 1996; Grant, 1996b) then this suggests that unconditional trust is a significant antecedent facilitating processes of knowledge creation.

This literature, then, emphasises the role of particular forms of trust in intra-organisational relationships between professionals, facilitating processes of knowledge creation. Whilst different researchers use different terms to describe high trust relations, it would appear that cognitive based trust equates generally to conditional trust and that affect based trust equates generally to unconditional trust. Importantly, affect based or unconditional trust is considered to promote high levels of co-operative behaviour that facilitates knowledge creation. This point however is perhaps debatable in relation to processes of knowledge creation. For example, high levels of affect-based trust may mean that creative abrasion

(Leonard and Sensiper, 1998) is constrained as individuals censor themselves in order not to offend colleagues that happen to be good friends by questioning the basis of their knowledge or assumptions. Nevertheless research has demonstrated that this form of trust is considered to be manifest in certain type of behaviour such as altruistic and help-seeking behaviour. This research then will consider then whether these behaviours are displayed by consultants and explore the impact of such behaviours in processes of knowledge creation.

## **2.10 Conclusion**

Within the preceding sections, existing literature that has considered aspects of knowledge work, creativity and innovation within organisational theory and strategic management has been presented and critiqued. Section 2.1 focused on the literature that has sought to classify knowledge creation. This literature highlighted the way in which different types of knowledge interact and combine during processes of knowledge creation, and identified different modes of knowledge communication and dominant forms of knowledge within organisations. In this research it is important to characterise processes of knowledge creation and consider the way they may have changed over time. It will also be pertinent to consider any differences across the case study firms. Taxonomies developed in this literature will be used to 'map' the way processes of knowledge creation occurred over time within each of the case firms. There are few empirical accounts that have focused on knowledge creation and the analysis developed in Chapters 4- 8 will contribute to our understanding of important aspects of knowledge work and processes of knowledge creation more generally. Sections 2.2 – 2.7 presented a critique of much of the existing literature which has sought to identify the structural conditions necessary for creativity and innovation, highlighting the intrinsic reductionism in much of this work and the failure of much of this research to sufficiently address the intrinsic tension between autonomy and control within these types of organisations.

In developing this argument, other literature on culture, power and trust was presented in order to highlight the potential importance of cultural and social conditions for understanding the way in organisational processes of knowledge creation are sustained.

The empirical analyses of the case firms (chapters 4 through to 7) will then provide a critical interpretative account of the interrelationships and interaction between structural conditions and cultural and social conditions, which served to shape the contextual conditions sustaining processes of knowledge creation within the case study firms.

In Chapter 8 the major findings from this research will be drawn together and presented and conceptual developments proposed which may contribute to theory development in the fields of knowledge work, the management of knowledge workers and organisational culture. Whilst only two organisational contexts have been explored in this research, a summary consideration of the applicability (if any) of aspects of this research across organisational contexts generally, will be presented in the concluding section of this chapter, together with the limitations of this research. Future research directions in the field of knowledge work and the management of knowledge workers will conclude the thesis. In the following chapter the methodological approach used and the research techniques that were adopted in this research are discussed.

## **Chapter 3 Methodology**

*“To have any hope of understanding one another, we do however have to speak in similarities, in images. We always do that in the simplest contexts of everyday life, and we also do that now, when we jointly try to learn something about reality. Real scientists never say: this is it! But they say: this is an image of the way we think it is.” (Fagerholm, 1997:19)*

### **Introduction**

In this chapter, the methodological approach adopted in this research is discussed and justification is provided for the epistemological approach used. Fundamentally, two extensive case studies were conducted in order to address the research question and the empirical material derived from these cases were analysed using an interpretative approach rooted in constructivism (Alvesson, 1995; Denzin and Lincoln, 1998). In itself “ case study is not a methodological choice, but a choice of object to be studied”(Stake, 1998:86). Thus I chose to study two expert consultancies in order to understand how processes of knowledge creation were sustained in that particular organisational context.

### **3.1 Methodological Approach Taken**

Yin (1989) is one of the major proponents of the case study approach. However his approach to case study research is routed in positivism. For example, he asserts that the case study is a suitable approach to research when control over behavioural events is not required and the research question is primarily of the how/why form, attempting to attribute causal relationships between particular phenomenon and context (Yin, 1989). He also suggests that many commentators do not believe the case study method to be scientifically valid because those conducting case studies have often “allowed equivocal evidence or biased views to influence the direction of their findings and conclusion”(Yin, op.cit. p. 21). He however, claims that by adopting a scientific approach which rigorously

tests and justifies the data using natural science methods of experimental design, including reliability and validity testing, the 'problems' associated with case studies can be overcome. Many other researchers (mainly US based) advocate the use of natural science methods when designing and analysing case studies, emphasising that constructs such as external validity and reliability matter if theory development is proposed (Eisenhardt 1989; Leonard-Barton 1990). Positivist approaches to case study design and research assume then that organisational reality consists of dependent variables and independent variables and that the relationships between them can be tested leading to the verification of hypotheses. This approach tends fundamentally to ignore the idea that the world (including the research world) is socially constructed, characteristic of the constructivist paradigm (Denzin and Lincoln, 1998).

Alvesson (1995) refers to those qualitative researchers who strive to achieve such an objectivistic, scientific approach as 'data collectors'. He differentiates between this research approach and an interpretative approach, in which personal frames of reference and values are allowed to influence the interpretation of data. This second group of researchers he refers to as 'interpreters'. The interpretivist approach then actually emphasises and highlights the researchers own subjectivity in the analysis, countering claims that biased views inherently lead to invalid research findings. Interpretative research recognises that there are some organisational phenomena that cannot be empirically validated but at the same time can be understood in an interesting and meaningful way. The interpretative approach focuses then on the development of hypotheses and theories rather than the testing and verification of them (Alvesson, 1995). Researchers, particular in the fields of organisational culture, power and communication studies have adopted the interpretative approach and legitimated its use (c.f. Geertz, 1973; Smircich, 1981; Morgan et al., 1983; Meyerson, 1991; Deetz, 1985; 1992; Alvesson, 1995).

An interpretative approach recognises that “There is no such thing as ready-made data waiting to be collected up by the researchers ingenuous research methods .....The researcher’s frames of reference language and other elements in the prestructured understanding strongly affect that which he or she sees, how it is interpreted and how it initially becomes a research text” (Alvesson, 1995:42). Deetz (1992) supports this assertion and states “Theory is a way of seeing and thinking about the world. As such it is better seen as the “lens” one uses in observation than as a “mirror” of nature”(1992:66). He is suggesting here then that in theory development, researchers can only rely upon their subjective observation, they can never hope to develop a ‘true’ representation of reality (as highlighted in the quote at the start of this chapter). Deetz argues that positivistic theory development with its emphasis on dependent and independent variables, hypothesis testing etc., serves to create only applied and highly specific knowledge based on the researchers own “arbitrary structuring of the world” (1992:70). It fails to direct our attention to significant aspects of reality. As long as interpretations are well supported by empirical evidence, supporters of the interpretative approach suggest that it provides for an analysis that allows for conceptualisation, rather than strict definitions. It aims not to generate one world view of the ordering of reality within the context studied, it allows for multiple representations of the organising and ordering of events which then provides scope for alternative thought and courses of action. As such this approach aims to encourage critical debate around the area studied rather than offering any answers.

The analyses of the case firms will focus on many aspects of organisational ‘reality’ including deeply embedded, organisational phenomena (e.g. culture, trust and power). These phenomena I suggest, can only ever be understood and analytically represented by adopting an interpretative approach. These are not aspects of organisational reality that can be tested or measured precisely and categorised in verifiable, objective terms, particularly within the organisational context studied. These phenomena are only ever subjectively

perceived by those that experience them. Hence the potential influence of these phenomena on processes of knowledge creation can only be subjectively interpreted. Their influence cannot be subject to testing and verification against an externally defined social reality. In addition, even more tangible organisational attributes, such as organisational configuration, cannot be reduced to crude objective variables, existing as stable, discrete, definable entities. Individuals need not necessarily agree for example, on the level of formalisation existing within a firm. This again can only be subjectively perceived. It is the work of the researcher then to gather empirical material from a number of sources and, acknowledging one's own subjectivity, interpret the level of formalisation within the firm, using multiple sources of evidence to justify that interpretation. Rather than attempting to demonstrate then that the approach taken satisfied such criteria as internal/external validity, reliability etc., characteristic of the positivist paradigm (Yin, 1989), this research here is characteristic of the constructivist paradigm. It assumes a critical ontology and a subjective epistemology. The analyses of data will therefore be fundamentally critically reflective. The aim is to develop an analysis that whilst aiming to demonstrating criteria such as trustworthiness, credibility, confirmability and transferability (Denzin & Lincoln, 1998), also reflects tensions, unresolved issues and contradictions that inherently constitute organisational 'reality'.

In the following section, the way in which the sites were identified and selected is discussed, consideration is given to the temporal perspective of the research and reference is made to the lack of substantive, empirical research in this field generally. Section 3.3 discusses the manner in which the fieldwork was conducted including; negotiating access; interview design and procedures, observational procedures and scope of access to secondary sources of data. In section 3.4 the way in which the data were analysed is discussed, highlighting the interpretative methods used. The inevitable limitations of the fieldwork are discussed in the final section of the chapter.

### **3.2 Selection of the research sites**

In designing the research, a decision had to be made as to whether a single case study or multiple cases would be conducted. Having defined the unit of analysis as the firm, the characteristics of expert consultancies were considered. Based on previous research on knowledge work and the work of PSFs discussed in previous chapters (c.f. Starbuck, 1992; Alvesson, 1993; Lowendahl, 1997) an expert consultancy was predicted to fulfil the following criteria:

- The firm would have existed at least 5 years with some measure of success in terms of profitability and growth (indicative of their capability to sustain processes of knowledge creation)
- The firm would employ a predominantly expert workforce (the majority educated within the recognised professions and/ or to PhD level, rather than the one third highlighted by Starbuck (1992) )
- The firm's strategic focus would be to offer a creative problem solving capacity as the major service to clients (Lowendahl, 1997).

Based on my previous research experience and help from colleagues, a number of firms were identified that satisfied these criteria and from a practicable standpoint, two case studies were considered manageable and sufficient. That is, whilst one in-depth, longitudinal case study would perhaps be appropriate, the interpretative task is facilitated by difference. Difference is helpful, it informs and enlarges understanding and promotes inductive reasoning that is based on evidence from different organisational contexts and multiple sources. The aim of conducting two case studies then was to analyse the predominant way processes of knowledge creation occurred and possibly changed over time and specifically allow for differences in the process across the two firms to inform the interpretation. Having understood and characterised knowledge creation within the firms, the critical contextual conditions sustaining processes of knowledge creation could then be

considered. By conducting research in two firms then, it was assumed that common themes and differences would emerge that would inform an interpretative analysis of the critical contextual conditions sustaining knowledge creation.

An important methodological issue in this research was the emphasis on the collection of historical as well as current data and analysing data temporally. Interviewees for example, would be asked to consider critical events in the firms' history and any fundamental changes that had occurred with regard to mode of organising, project working etc. over time. Evidence would be sought from other sources, primary and secondary, in support of interviewees' accounts of historical events. This temporal approach to analysis was considered necessary in order to determine the sequencing of any contextual changes or critical incidents and events that may have occurred so that their impact on sustaining processes of knowledge creation over time could be considered.

Previous research in this field, has acknowledged that some firms seem better able to promote creativity and innovation than others (c.f. Sveiby & Reisling, 1986; Starbuck, 1992; Maister, 1993; Wikström & Normann, 1994; Lowendahl, 1997). However, sweeping generalisations tend to be made regarding the reasons for this which are lacking substantive empirical evidence and grounding. This body of research asserts that successful innovation seems to occur when the 'right' calibre of people are employed and managed 'appropriately'. Broad generalisations are made as to what constitutes the 'right' calibre of people and what constitutes 'appropriate' ways of managing. Often reference is made to organisational culture as highly relevant where innovation is a strategy and/ or the firm predominantly employs knowledge workers or experts, but little substantive evidence or analysis is provided although Kunda (1992) and Alvesson's (1995) work are notable exceptions to this. The vast majority of previous research then has not adopted a processual approach and does not consider in a substantive, empirical manner, the interaction and interrelationships between people and organisational conditions which promote and sustain

processes of knowledge creation over time, within an organisational context. The interpretative research presented here expressly sets out to do this.

### **3.3 The manner in which the fieldwork was conducted**

I have indicated that the fundamental approach adopted in this research was to undertake two case studies. However, acknowledging the relative complexity of the research question, it needs to be emphasised here that the approach approximated almost to an ethnographic study. Whilst I was not in strict, methodological terms a participant / non-participant observer on site for an extended period of time, I was provided with considerable open access to both firms over extended periods of time. To consider the implications of this for the research, I will first discuss how access to both firms was negotiated.

#### **3.3.1 Negotiating access**

I located the first case study firm by establishing initially whether there were any region in the UK, known for creativity and innovation, referred to in the literature as a geographical technopolis. A technopolis is a “ geographically concentrated high tech complex often characterised by collaborative R & D efforts between high tech industry and a research university or government-sponsored R & D institute, and by the presence of venture capital and entrepreneurial spin-offs” (Rogers and Chen, 1990:15). The Cambridgeshire area, in the South-east of England contained several such firms. For example, PA Consulting, a global consultancy organisation, locates its technology subsidiary in the Cambridge area. I initially contacted a number of consultancies in this area and explained the nature of the research and the level of access I would require to conduct the research.

I stated that I would need access in terms of formal interviewing, to a cross section of the consultants working in the firm. In addition I would need to interview the Founder(s)/ leader(s) of the organisation and a cross section of support staff including any professional,

technical and administrative staff. I emphasised that all interviews would be recorded and transcribed. I highlighted that it would also be necessary to observe any meetings, forums or events that involved groups of individuals within the firm. I also asked to observe project team working, involving consultants. In addition I requested that everyone within the firm be made aware of the research and that I be provided with opportunities for informal access to consultants and support staff generally when on site. In terms of access to secondary sources of data, I requested access to project documentation, company data (including financial and performance data and public relations/ marketing material), client documentation and any information systems that were in use.

I acknowledged that the level of access I was requesting was considerable. However, I emphasised that the research would provide valuable insight into the way in which they managed to sustain knowledge creation. One medium sized scientific consultancy that focused on the development of new products and processes for clients, which is referred to throughout this thesis as 'Universal', agreed in principle to participate in the research subject to the following conditions:

- Both myself and my supervisors (on behalf of the University) signed a legally binding Confidentiality Agreement that prohibited any party from making public any information derived from the research, without prior agreement.
- Access to client documentation was not provided.

I agreed to these conditions and it was arranged that when on site I would be provided with a desk and other facilities (PC, phone) in the main open-plan office where the majority of consultants worked. This was considered to provide informal access generally within the firm. I was provided with a list of all employees and I was able to choose whom I interviewed. Administrative support was provided to schedule interviews at mutually convenient times. In addition arrangements were made for me to attend the following meetings:

- A Management meeting (these occurred monthly)
- A Marketing meeting (these occurred weekly)
- A Board of Management (BoM) meeting - worker committee (these occurred monthly)
- Communications (these occurred weekly)
- A Public Relations Meeting with an MP (ad hoc)

I was told that when on site, providing I did not interrupt project working, I could talk to whomever I chose informally. Arrangements were also made for me to spend time with the IT manager and be shown how to access the information systems and applications that were used. I was also given access to the Library where all project documentation was stored. The research period extended over two years in this first case study firm. The majority of interviews were conducted over a six-month period. However, given the significant access I had been provided with, I took the opportunity to return regularly to Universal, arranging ad hoc interviews, generally with consultants who had previously been interviewed, to discuss any recent developments or changes within the firm. In addition I wrote a working paper that presented my interpretation of the general mode of organising within Universal and potential issues arising from my analysis of the way in which knowledge creation processes were sustained. I circulated this to a number of consultants, the Founder and the Human Resources Manager and asked for their comments. Two consultants then spent further time with me exploring my preliminary analysis. This exercise provided useful additional material, which further contributed to the interpretative analysis.

Working full time (and conducting doctoral research only part time), I chose not to attempt to conduct fieldwork at two sites simultaneously. However I began negotiating access with the second case firm several months before fieldwork commenced, whilst completing the fieldwork at the first research site. An expert consultancy based in the centre of London, which primarily offered strategic and organisational development consultancy services to

PSFs (including large, global, consultancy firms) did agree to participate, subject to a more restrictive Confidentiality Agreement. This second consultancy, which is referred to throughout this thesis as 'Paramount', was small and arrangements were made to interview everyone who worked in the firm. Again I was also provided with opportunities and access to informally discuss with consultants any issues that I perceived as equivocal and current developments and events as they occurred. Arrangements were made for me to also attend the monthly Management Meetings and to have access to previous meetings' minutes. This was the only event that occurred regularly which, despite (or because of?) its name, involved everyone in the firm. I was also invited to observe a consultant seminar on 'organisational culture' given by the Founder of the firm. Seminars occurred irregularly, involved all consultants and were held off site.

I was also provided with access to all client and project documentation, company reports (financial, performance related, marketing) and the information systems in use. Notably I was provided with access to client documentation at Paramount, which was considered to be an integral part of project documentation. Thus whilst not provided with direct access to clients, I was provided with considerably more explicit material about clients at Paramount. This significant degree of access occurred because of Paramount's reliance on a legally binding contract. Many consultants within the firm had a professional legal background and a significant amount of trust was generated when I signed the contract that they had specifically drawn up. From that point onwards, completely open access to people and secondary sources of data was willingly provided. I agreed to formally report my major findings to the whole firm. It was arranged then that I should attend and present my findings at the annual general meeting (AGM) of the firm. The AGM took place over one weekend at an exclusive hotel outside of London and I participated in the whole event. The research period in the second case study firm extended to 11 months.

Table 3.1 highlights some pertinent aspects of the case firms and provides details regarding the sources made available by each of the firms. Whilst it is evident that the firms differed considerably in size and the services they offered, these differences were considered to be useful in shaping understanding and developing an analysis. In some respects the firms were similar in that they were both still led by their original Founder's and they were both relatively young firms.

<b>Characteristics of the firm</b>	<b>Universal</b>	<b>Paramount</b>
Founded	1986	1990
No. 's employed	137	17
Location	Cambridge	London
Main type of service	New products	Strategy Development
<b>Sources of evidence</b>		
No. of interviews	18	17
Av. Length of interview	1-2 hours	2 hours
Meetings attended	6	3 (inc. 2 day AGM)
Site visits (non-participant observation)	20 days	11 days
Access to company data	Open	Open
Access to information systems	Open	Open
Access to client documentation	None	Open
Access to project documentation	Open	Open

**Table 3.1 Characteristics of the case firms and sources of evidence**

### **3.3.2 Interview Design and procedure**

The majority of empirical material was therefore collected through the semi-structured interview technique. Semi-structured interviews are also known as open-ended interviews (Wolcott, 1995) or as non-directive interviews (Whyte, 1991). The aim of this approach generally is to be structured in terms of the research question, but to be designed in such a way as to provide the interviewee (or informant) with latitude to provide information that is not necessarily anticipated by the interviewer (Whyte, 1991) potentially enriching an interpretative analysis.

Given the nature of the research question and the depth to which particular issues needed to be explored e.g. the nature of trust and power relations, I familiarised organisational members with the nature of the research before interviews commenced and I also provided some background on myself. All organisational members were then provided with a brief outline of the research and my Curriculum Vitae was circulated throughout the firm. It was also emphasised that all transcripts would remain anonymous and interviewees would be provided with a copy of their own transcript if requested. It was also highlighted that when reporting back to the firms, only non-attributable quotes would be used. The aim here was to ensure the confidentiality of interviewees and to promote confidence between interviewer and subject. In addition, all interviewees were provided with an outline of the interview schedule at least one week before they were interviewed, in order to clarify and consider the nature of the questioning. This, it could be argued provided interviewees with an opportunity to 'prepare' socially desirable answers, that may not necessarily be valid representations of their perception of organisational reality. However, any particular issues highlighted as significant by interviewees, together with any anomalies or ambiguities that emerged, were further explored using data triangulation techniques (Burgess, 1991, Yin, 1993, Denzin & Lincoln, 1998). These techniques were used across interviews and additional support for interviewees' comments was sought from a number of other sources e.g. secondary data, attendance at company meetings, informal conversations.

During interviews, I adopted a 'one-down' position, whereby I assumed a subordinate role as learner and the person being interviewed predefined as 'clearly in the know' (Agar, 1980). I believed this approach would appeal to consultants and support staff alike, insofar that it acknowledged that only they could make sense of and articulate their perceptions of organisational reality. This approach again aimed to generate a sense of ease with interviewees given the problems of formality associated with taping interviews.

I followed Whyte's (1991) approach with regard to the structuring of the interview. Having ascertained a certain amount of demographic background at the start of the interview, the questioning then developed in ways that encouraged talk along certain lines, focusing on the way in which the firm was organised and operated currently and in the past and then focusing more specifically on the nature of project team working, currently and historically. Care was taken to listen sympathetically and with interest, rather than talk. Questions were rephrased and reflected back to the interviewee in order to summarise their remarks and check for understanding. Whyte (1991) suggests that interviewees are likely to talk more 'for the record' in the presence of a tape recorder. On this basis he suggests that a strong rapport needs to develop in order for interviewees to accept the tape recorder and behave naturally. The approach I adopted worked well and the majority of interviewees were remarkably candid and open when describing their way of working, which is reflected in the quotes used in the analyses of the cases.

The advantages of taping interviews can be judged against the disadvantages of note taking. When taping an interview, the interviewer is free to reflect upon what is being said, is ready at the conclusion of a statement to raise another question or make a statement to develop the account further on pertinent. In effect the interviewer is in a position to be far more active in the interviewing process when using a tape recorder. An obvious drawback with this approach, is the amount of time required to transcribe each interview. However, I was provided with secretarial support for transcription that overcame this issue.

I did recognise that all interviewees were not of equal value to the research. As Whyte comments "There are some individuals who, no matter how skilled the interviewer, do not notice what is going on around them or perhaps have difficulty in expressing themselves" (1991:114). However, by the very nature of the majority of people I was interviewing, that is expert consultants, where considerable care had been taken to accommodate them in terms of timing of the interview and duration, their views and own analyses of the way in

which the firm operated and the way they personally organised their work, were generally well considered and therefore extremely valuable. These individuals are skilled at analysing situations and articulating their analyses and thoughts to others. Thus the quality of the empirical material, I perceive was good in so far as it was highly analytical and reflexive. A number of support staff in both firms were more reticent or less able to clearly articulate their roles or their perceptions of organisational reality. However, non participant observation of daily working and informal conversations (which were subsequently documented) often provided clarification on particularly ambiguous issues.

As mentioned previously, interviewees reporting of situations can be influenced by a number of factors, such as ulterior motives, a desire to please and idiosyncratic factors that may cause the interviewee to express a reaction that may be considered atypical (Whyte, 1991). These could result in misinterpretation of the interviewees' statements. However, when interviews are considered together with other sources of evidence, these factors may actually serve to contextualise the interview. Ulterior motives were counteracted by emphasising my objectivity in the process and lack of position to influence any decisions or actions that may be taken as a result of my research findings. Ultimately, it was my continued presence over a number of months and efforts to engage regularly in conversation with consultants and support staff that allowed a relationship to develop with a number of people in each firm. These individuals, subsequently became key informants for the research as they were generally prepared to spend time discussing any issues I considered required further clarification.

An outline of the actual interview schedule used in both firms is provided below:

- Personal background – education, qualifications, previous employment history, length of time with the firm

- Reasons for joining the firm, the selection process, comparisons with firms at which previously employed (in terms of mode of organising, routines, systems and procedures)
- Positive aspects of working in the firm
- Negative aspects of working in the firm
- Description of what occurs during project work, including type of work conducted, selection of the team, project management – changes to this over time
- Consideration of sources of expertise and information within and outside of the firm
- Factors (both internal and external) that supported individuals in project work
- Consideration of the way in which performance is managed – changes that may have occurred over time
- Informal aspects of working in the firm (in terms of extra-curricular events, socialising etc.)
- Individual perception of the organisational culture, dominant values held within the firm, reasons for staying with the firm

### **3.3.3. Observational procedures**

When access was provided at company meetings, I ensured that I was provided with copies of all documents pertaining to the meetings and any previous minutes beforehand so that I had some idea of the general format of meetings and previous issues that had arisen. I took note not only of linguistic behaviour but also non verbal and spatial behaviour (Franfort-Nachmias & Nachmias, 1996). For example, I took note of the seating arrangements at meetings, when people arrived and left meetings etc. I also took extensive written notes throughout these meetings with regard to my perceptions of the following

- Processes of decision making
- Power relations
- Organisational performance and strategy

- Human resource issues e.g. selection, retention, performance management
- Any issues other than those identified above, considered to be problematic
- Evidence of displays of informality e.g. jokes, humour, casual asides.

When attending meetings at Universal, there were occasions when my presence was referred to as possibly constraining open discussion. However, at all meetings that I attended the Founder was also present. He was a major sponsor of the research and he reinforced the issue of confidentiality and my non-participant objectivity, encouraging attendees to ignore my presence. It is however difficult for me to assess whether my presence at any meetings, significantly shaped or altered the discourse that occurred. Sensitive issues were discussed, such as profitability, turnover, HR issues, I therefore assume that the meetings I attended were typical of those occurring more generally.

At Paramount, I began attending meetings only after I had interviewed almost everyone within the firm. I had also had an opportunity at this point, to spend considerable time having informal conversations with consultants and support staff. Consultants and support staff alike appeared to be genuinely interested in the research and my presence at meetings, including the AGM was, I interpreted, considered novel yet unobtrusive. When I formally presented my major findings to the firm, there was considerable questioning and debate around issues, particularly those conditions that I had interpreted as possibly constraining processes of knowledge creation. This exercise was a valuable source of further empirical material and provided further clarification for some of my major findings. The AGM also provided a valuable, highly informal setting in which to observe intra-organisational relationships generally within the firm, over dinner(s) and during an afternoon of recreational activity.

The research design was then characterised by the use of multiple, qualitative methods and sources. Rather than simply relying only on interviews with consultants for data pertaining to project working, and organising, consultants were also observed working together and

day-to-day operations were also observed and discussed informally with support staff and consultants alike. I had access to project documentation and other internal documentation and relevant information was either recorded or photocopied. Again, there was no objection to me photocopying secondary sources of data in either firm, other than financial data.

The information systems that were in use inside and outside of project work were also accessed. In Universal the main information systems in use was e-mail and a performance management system. In Paramount, there were only two information systems in use at the time of the research, a time recording system for consultants and an e-mail system. To summarise then, the degree of access provided in both case study firms was considerable. I developed good relationships with people across both firms throughout the research period, which are ongoing. I therefore had the opportunity to gather a considerable amount of empirical material both formally and informally, in support of my major findings.

### **3.4 Analysing the empirical material**

The general analytical approach adopted was to interpret the material in relation to the objectives and in support of the overall aim of this research. Once the transcriptions were complete and all of the notes had been fully recorded from secondary sources of data and non-participant observation at meetings, informal conversations etc. I was then able to use content analysis and pattern matching logic to compare and contrast data (Yin, 1989). For example when analysing the ways in which structural conditions served to facilitate or constrain processes of knowledge creation and vice versa, I compared my interpretation of the empirically based patterns found in the two cases with the predicted patterns derived from the existing literature. For example, I considered what evidence existed in support of the adhocracy as a configurational form in each of the firms. Where evidence was found or otherwise, I interpreted that evidence in relation to facilitating or constraining processes of knowledge creation. Where differences were found across the two case study firms, I

considered whether these were attributable to the major service offered by the firm, that is the nature of the knowledge creation process or whether they could be attributed or related to some other aspect of organising.

### **3.4.1 Research considerations when analysing organisational culture**

All research procedures are highly context dependent and shaped by the skills and expertise of the researcher. An interpretivist approach in particular, does not strive for exact compliance between empirical reality and research results because it is acknowledged that data is as much constructed by the researcher as collected.

The interpretative approach has been used and legitimated in a number of organisational cultural studies (c.f. Smircich, 1983, Czarniawska-Joerges, 1994; Rosen, 1991). Alvesson states however, "It is tempting to allow everything to become a question of culture, to regard culture as an "all-embracing broom" which explains everything and describes all phenomena in cultural terms"(Alvesson, 1995: 56-57). I have attempted then to be cautious when interpreting the influence of culture and acknowledge that in attempting to understand knowledge creation processes, culture can only provide some explanatory power.

In this research culture is considered to be a metaphor, something an organisation is, both shaped by individual behaviour and shaping individual behaviour. The approach taken to analysing organisational culture in both of the case firms then was to consider culture as a system of meaning (collective consciousness) and symbols, created and sustained by individuals within the organisation. This approach is considered to be a broader, more eclectic approach, than that taken by purely cognitive or symbolically-orientated anthropologists, one which captures the multiplicity and depth of reality, yet in a loose and relaxed manner (Alvesson, 1995). Organisational culture in this research is only one of many aspects of the case firms to be analysed. This research never set out to be a full and

complete cultural analysis of the case study firms (not wanting to pre-privilege culture) and thus this more relaxed approach seems relevant and appropriate.

Morgan et al (1983) have shown in their work and other works in the same volume (c.f Wilkins, 1983; Martin & Powers, 1983), the potency and extensive interpretative capacity of symbols “ A symbol is a sign which denotes something much greater than itself, and which calls for the association of certain conscious or unconscious ideas, in order for it to be endowed with its full meaning and significance.....Symbols are signs which express much more than their intrinsic content; they are significations which embody and represent some wider pattern of meaning” (Morgan et al, 1983:4-5). However, it is also important to focus not only on the shared and differing meanings attributed to various forms of organisational symbolism but also to consider shared values and ideas held by organisational members which constitute the meaning attributed to organisational reality.

When analysing organisational culture then, I interpreted the significance and meaning attributed to multiple representations of organisational symbolism including physical entities (e.g. the office building), actions/behaviours, events, systems and routines. In doing this I sought the interpretation afforded to them by organisational members, recognising that interpretation can only ever be subjectively perceived and would therefore inherently vary. Symbols are socially constructed and can and do convey different, often very contradictory things to different people. In my cultural analyses, I was particularly interested in the Founders’ interpretation of symbols, compared to others’ perceptions, recognising that many aspects of organisational symbolism would have been initiated by the Founder (Schein, 1983, 1992). I also sought individuals’ views on what they considered to be important aspects of the organisational culture and the dominant values within the firm. I chose not to rely only on interview data here which could be ‘presentational’, (Meyerson, 1991b) but to consider evidence from other sources, particularly informal settings and group meetings. I was acutely aware however of the

ethics surrounding informal observation and took care not to violate individual privacy/Deetz, 1985). I have limited my sources therefore to those in which the informant chose to informally discuss an issue in my presence (with me directly or others) or chose, when my presence was obvious to behave in a particular way.

It is also important to consider the extent of the cultural analysis. Like Alvesson (1995), my case firms were relatively young and whilst the analysis did consider the past (culture as a historical phenomenon), it was most easily understood in the present (the culture as it appeared to me at the time of the research). In Universal, I was not able to interview or observe a significant proportion of the workforce. Whilst I had contact with individuals across the firm at Universal, I acknowledge that I have only derived a partial analysis of values, meaning and symbols within that firm. However, I did have access to Universal over a time span of two years and interviewed some consultants on a number of occasions. This time span did compensate for the deficiencies in the number of people interviewed, in so far as predicted trajectories of the firms' development were observed and the impact these had on organisational culture were considered. In Paramount, I was able to interview everybody in the firm and the research was conducted intensively over an 11 month period. This allowed for a fairly thorough interpretation of individuals' perceptions of organisational culture. Societal cultural conditions have not been taken into consideration in this research and this is acknowledged here as limiting the extent of the cultural analysis presented.

### **3.5 Generalisability of the research and limitations of the fieldwork**

I highlighted in Chapter 1 that within the UK consultancy sector in 1998 there were over 40,000 small and medium sized consultancy firms representing just over half of the total earnings in this sector. An indeterminate proportion of these firms strive to differentiate themselves within this sector by means of the markets they serve or the services they offer. Many focus on developing highly customised, innovative solutions for niche markets. In

addition, larger consultancy organisations, which many researchers have argued are focused on the diffusion of 'best practice' or managerial fads and fashions (Abrahamson, 1996), are necessarily or by default also engaged in processes which contribute to the development of 'best practice'. 'Best practice' solutions need to originate somewhere. Processes of knowledge creation are not absent within large global consultancy firms, they are simply not necessarily the focus of management (or currently, researchers) attention within these firms. Emphasis instead, is placed on the development of long term relationships with large, multi-national client firms and the diffusion of 'best practice' in these markets.

Whilst acknowledging the inherent subjectivity of the research approach, the major findings derived from this analysis are expected to have some resonance to small and medium sized expert consultancies, focused on the development of customised solutions for clients in the UK. In addition aspects of this research may have some resonance for large, consultancy firms, directing attention towards those contextual conditions which influence both project team working generally and processes of knowledge creation more specifically. Recognising that societal and institutional effects more broadly have not been considered in this research, the generalisability of the research in other country contexts cannot be estimated. Research conducted in KIFs across the US and Sweden (Starbuck, 1992; Sveiby & Lloyd, Wilkström & Norman, Alvesson, 1995) has however, suggested that KIFs in these countries do display some common characteristics e.g. configurational attributes, an emphasis on normative control etc.. This suggests that some of the findings may have resonance and apply to KIFs in other contexts and countries.

It was assumed, a priori, that it was not a matter of chance or accident, but rather by design, that expert consultancies would actively attempt to organise in ways to facilitate processes of knowledge creation. However, the research aimed to develop a critical analysis that stimulates debate about those conditions that were interpreted as sustaining

processes of knowledge creation. In addition then, the major findings aim to highlight those contextual conditions, detrimental to processes of knowledge creation, which need to be minimised, overcome or preferably avoided, if knowledge creation processes are to be sustained over time. It is important to emphasise here again, that the process of knowledge creation is inherently problematic and to a significant extent unpredictable. It relies on the integration and synthesis of knowledge from multiple sources, outcomes cannot be predicted and importantly, successful outcomes cannot be guaranteed. The major findings then are not a positivist recipe for success, they aim to provide explanatory power for at least some of the contextual conditions that influence, *not determine*, processes of knowledge creation.

It is also acknowledged that the results of this research could be further refined by conducting additional case studies in similar organisational contexts. When negotiating access to the firms in this research, I had meetings with individuals from a number of other similar expert consultancies. The Founder of one such firm agreed in principle to participate in any further research I conducted. Unfortunately, because of the time required to conduct fieldwork at each site, it was not possible to conduct further case studies for this particular study. I consider the 11-month period spent conducting research at Paramount, the minimum amount of time required to undertake a study of this scope and complexity. Whilst a lot of this time was not spent actually on site, the longitudinal approach contributed significantly to an understanding of work processes as projects commenced and were subsequently successfully completed. In addition, an extended time period presents the researcher with an opportunity to observe changes (some minor, others more significant) which shaped the way people organised and worked. Despite then the benefits of an extended research period at each site, I do recognise that my analysis would have benefited from conducting additional case studies. I plan to conduct at least two further case studies in expert consultancies in the near future. Following the presentation of my

findings at Paramount, a working party was set up to consider ways in which the constraints on processes of knowledge creation that I had identified might be overcome. Arrangements were made for me to conduct some follow-up research in this firm to establish what progress had been made in this area. This additional research will also I believe contribute significantly to further theory development in the area of knowledge work. In the following four chapters the case study firms are described and analysed. The analyses are structured according to the main objectives, which were to map and characterise processes of knowledge creation over time, and to consider and reflect upon the critical conditions necessary to sustain knowledge creation over time.

## **Chapter 4 An analysis of the structural conditions that existed over time at Universal Consulting**

### **Introduction**

In this chapter the historical development of Universal Consulting is initially presented. A considered description of the firm then follows structured according to the theoretical literature presented in chapter 2 that highlighted the potential influence of structural conditions on processes of knowledge creation. Thus when describing and analysing Universal Consulting, consideration is given to the selection, management and retention of the workforce, the overall organisational configuration, the availability of organisational resources and the operational nature of project team working including the organisational routines and processes which supported project work. The chapter concludes with a summary discussion of the influence of these structural conditions on processes of knowledge creation. However, it was highlighted in Chapter 2 that an analysis of the way in which processes of knowledge creation were sustained that relies solely upon the influence of structural conditions may be overly simplistic and possibly reductionist. Other cultural and social conditions are also considered to significantly influence processes of knowledge creation.

Thus in chapter 5 consideration is given to the role of more deeply embedded organisational phenomena on processes of knowledge creation. An analysis of the organisational culture, dimensions of power and the nature of trust relations and at Universal will then be developed in chapter 5 in order to further refine the analysis of the way in which processes of knowledge creation were sustained in this firm.

### **4.1 The historical development of Universal Consulting**

Universal Consulting is primarily a scientific consultancy. 85% of the workforce are highly educated scientists, who rely on their expertise and knowledge rather than equipment or systems, to develop inventions and innovative solutions for manufacturing, engineering

and pharmaceutical companies around the world. When defining the type of project work that Universal conduct for their clients it is important to understand the difference between invention and innovation. Universal Consultancy develops completely new concepts and products which it markets as intellectual property rights (IPR) and it also develops innovative solutions to organisational problems, using existing concepts, ideas and technologies in new ways. Universal has been responsible for the invention of major technological developments which are recognised and used throughout the world, including the electronic security tag and the use of radiowaves for telecommunications. Appreciating the rarity of pure invention facilitates a greater understanding of the significant level of expertise that needs to be maintained and nurtured by Universal if the organisation is to sustain high levels of creativity over time.

Universal Consultancy was founded by one individual in 1986. For the previous 27 years he had led (and was also the original Founder of) the technology subsidiary of a large global management consultancy. He left this subsidiary and founded Universal in order to have greater freedom to explore opportunities of inward investment resulting from technological inventions and innovation developed in-house. There was no opportunity to do this within a large consultancy more focused on general management consultancy. He wished to create a consultancy environment that would not only develop solutions in response to client problems but that would stimulate invention and innovation more generally.

Universal at the outset then was actually a 'spin-out' of the larger consultancy as the entire workforce initially consisted of approximately 20 consultants from the technology subsidiary. By the time of the research (1996-1998), Universal had developed an international reputation across many sectors and markets and was considered to be a major competitor of the larger consultancy. The reputations of the original organisational members were internationally acknowledged in the scientific, engineering and

communication communities and, over the 12 year time period studied, the organisation had grown and incorporated new business and scientific disciplines. The organisation was described in publicity material as a 'uniquely innovative, laboratory based, business and technology, consulting and investing company'. The organisation was defined as 'The Innovative Force'. There was an overriding emphasis throughout the organisations' publicity and marketing literature and web site, on innovation. Much of the publicity material, both internal and external (see for example, Financial Times, September 28<sup>th</sup>, 1995), described Universal as a unique consultancy environment, characterised by an emphasis on inter-disciplinary project team working, knowledge sharing and egalitarianism.

Over time then the organisation had grown in terms of numbers employed and scientific disciplines it incorporated. In 1996 at the start of the research period the firm employed 137 people directly, of which 116 were expert consultants, representing 19 different nationalities. It also employed a further 110 people on an associate basis in the US, Japan and Europe. The organisation grew most rapidly between 1986 and 1990 employing approximately 100 consultants by the end of 1990. This growth reflects trends in the consultancy sector generally during the 80s and 90s referred to in Chapter 1. What is perhaps surprising is that Universals' growth was relatively modest in relation to other generalist consultancy firms such as the Big '5' consultancies. Universal's growth was perhaps more reflective of the growth experienced by many of the thousands of smaller consultancy firms that constitute more than 50% of the consultancy sector in the UK (Morrison, 1998).

In 1991 however, in the midst of a general world wide economic recession, the organisation encountered financial problems. The majority of Universals' markets were affected by the recession, sales declined and the Founder was forced to downsize by approximately 15-20%. During interviews little reference was made to this period in the

companies' history. Those consultants who were employed at that time, were vague as to exact numbers of consultants that left the company and an emphasis was placed on the fact that the organisation returned to profitability within months. This appeared to reflect the way in which organisational discourse more generally tended to focus on success rather than failure.

At this point in time a fiscal structure referred to as 'divisionalisation' (by scientific discipline) was introduced. The firm became a limited company and internal Board members consisted of the Founder (Executive Chairman) and two consultants who had been with the firm since its inception. Their roles were formally defined as Chairman and Managing Director. This reorganisation was generally considered to have contributed significantly to the company turnaround. The firm grew at a steady rate from that point onwards. In 1994 the organisation moved location from a central city base to a much larger 'high-tech' site on the outskirts of the city, in a rural village location.

#### **4.2 The profile of the workforce**

When the firm was founded expert consultants were recruited with either engineering or communications backgrounds. As the firm grew consultants with expertise in other scientific disciplines, such as physics, chemistry and biochemistry were recruited in order to be able to offer a greater potential range of services to clients. Processes of scientific invention and innovation often require expertise from a number of disciplines and by expanding the range of disciplines and expertise within the firm, Universal were able to offer their services to a greater range of market sectors on a global basis.

These individuals were recruited from all over the world and worked from the firm's base in Cambridgeshire. In addition, scientists working in R&D facilities in Europe, the US and Japan worked for Universal on an associate basis, effectively sub-contracting their skills and expertise to Universal ad-hoc when there were insufficient resources internally to satisfy particular client projects. All of the consultants working at Universal had a PhD in a

scientific discipline and most had several years' commercial experience working in the private sector. At the time of the research, Universal had started to recruit relatively young consultants with very high levels of expertise in very focused scientific specialisms but little or no commercial experience. These individuals were encouraged and supported to undertake a Masters in Business Administration qualification at the prestigious Judge Institute, Cambridge University in order to develop business acumen and skills. The youngest consultants then were in their late twenties and Senior organisational members, who were all still active consultants at the time of the research, were the oldest members of the firm. There were significantly less female consultants (around 10%). However proportions were probably representative of the low female participation rates in scientific disciplines more generally.

There were relatively few support staff in the firm. Functional operations were supported in terms of a Human Resources (HR) manager, Marketing manager, Public Relations (PR) manager, IT manager, a company lawyer and a company accountant. In addition each division had at least one member of support staff and these were all educated to at least Bachelor's degree level. The Founder was the only consultant to have a dedicated Personal Assistant.

It was evident then that whilst Universal consisted of a fundamentally scientific workforce, the workforce was diverse with regard to background, ethnicity, expertise and skills. The Founder commenting on the diversity stated

*"Despite differences in race and culture, everyone seems to get on well. We try and avoid Iranians working with Iraqis however – that might be problematic!"*

Thus Universal had developed a diverse workforce considered necessary for promoting knowledge creation (Nonaka, 1994;Spender, 1996).

In the following section the way in which this diverse, expert workforce was recruited and selected is discussed and consideration is given to the way this process has changed over time.

#### **4.3 The recruitment and selection process**

The preferred recruitment method in the past had been to make use of personal networks, asking consultants if they knew of anyone they believe to be 'good' (scientists) and who would 'fit in' at Universal. However, based on the projected level of growth at the time of the research, highlighting a requirement for approximately 30 new consultants through 1996 and 1997, senior organisational members had late in 1995, decided to formalise the recruitment and selection process. An HR manager was recruited and his first task was to develop and implement a recruitment and selection process that would satisfy Universal's demand for expert consultants, yet accommodate the informality of Universal. In order to make more effective the recruitment process, he developed good relationships with two international recruitment agencies that had offices throughout the world. Once provided with Universal's person specification and a brief that described the type of work carried out by Universal, they were given the remit to provide shortlists of candidates to Universal on an ongoing basis throughout 1996.

The HR manager stated that he was only able to modify the approach taken to selection in a limited way and a multi-stage approach was implemented that replaced the highly informal procedure that had existed prior to his appointment. At the preliminary selection stage, candidates took an AH6 intelligence test and Cattell's 16PF psychometric test.

Only candidates with a PhD in a scientific discipline were considered for interview, therefore it was virtually impossible for any candidate to fail the AH6 test. It was also difficult to 'fail' the 16PF because Universal did not look for an 'ideal' profile other than traits such as 'openness' and a 'willingness to experiment'. Thus, virtually all candidates proceeded to a brief interview with the HR manager and the relevant divisional manager.

The HR manager stated that although there were big question marks regarding the validity of the aptitude tests, there was a certain “cultural attachment” to them. These tests had been introduced, several years earlier when the Founder had started to rely for candidates on sources (typically other Universal consultants) outside of his own personal network of contacts. In the early years of the firm, his own personal network had been the major source of potential candidates

During the first, short interview candidates were expected to demonstrate that they could fulfil the following criteria

“Candidates need to have a specialism and a strong understanding of other disciplines because of the need to work in teams and understand one another. They need to be almost naturally innovative and have a strong commercial awareness and the ability to sell. It’s quite a unique mix we are looking for...All the way through the selection process we give out big indicators to say the sort of organisation we are. It’s quite aggressive maybe and I’m sure interviewees will pick up quite a lot of arrogance on the part of the company but the messages we are giving out are more about confidence in what we do and how we do it rather than us thinking we are better than anyone else”.

(HR Manager)

Typically, the majority of candidates were rejected at this first stage. Approximately 25% equating to 4 candidates, progressed to a second interview. Universal were not afraid to reject candidates even though the potential labour market was relatively small, even when considered on an international basis. Universal were only interested in individuals with a PhD, who were English speaking, preferably with some commercial/ industrial experience and who were prepared to adopt a consultancy role, which required them to actively market their own, and more generally, Universal’s abilities and expertise to clients. Thus individuals were expected to have and display ‘symbolic analyst’ qualities (Reich, 1991), combining particular areas of expertise with financial and marketing acumen

The second interview focused on assessing the candidates’ ability to market to clients, their overall level of expertise and their ability to work inter-disciplinary. This second interview

was a panel interview involving a number of consultants from several divisions, who 'quizzed' the applicant in some depth on their knowledge of the inter-relationship between particular scientific specialisms and the way in which they could apply their knowledge across different disciplines. Following this panel interview, if the applicant was considered acceptable by all interviewers, a further interview was held with the MD. It was rare that he vetoed a selection decision but that option was available to him.

Approximately 16 candidates were interviewed for each post and for each of those interviewed, approximately 10 CV's would have been received, totalling 160 CV's. The selection process was described as 'rigorous and very expensive' by the HR manager. However there was an overriding emphasis on candidates ability to 'fit in' as the primary selection criteria, implying that in many respects a degree of cultural homogeneity was sought. Homogeneity primarily implied quite exceptional levels of scientific knowledge and expertise, in conjunction with a willingness and communicative ability to effectively share that knowledge with others across a range of scientific disciplines and importantly market that expertise to clients. Significantly however, homogeneity was not sought with regard to other characteristics such as nationality, age, experience and gender which was highlighted by the diversity that existed within Universal.

The HR manager commented

"You get a CV and the person has a Ph.D. and they've worked for a pretty high powered research agency and that's brilliant, you've got to see them, but you know that there is a pretty strong chance that the moment you meet them you're going to know what they're not - they're not one of us".

Consultants then throughout the firm would become involved in selection decisions. When interviews were scheduled the HR manager and divisional manager concerned would canvas for interviewers across the firm. It was important that consultants from other divisions were involved in order to assess the candidate's ability to share their knowledge and communicate effectively with others from different scientific disciplines. The recruitment and selection process appeared to be an important device for shaping

candidates' expectations and perceptions of Universal. Candidates were informed throughout the process, of the failure rates associated with each selection stage. This reinforced successful candidates' perception of themselves as part of the scientific elite and of Universal as a relatively unique kind of organisation to work for. Successful candidates knew what in principle would be expected from them before they joined the firm in terms of the 'Universal way' of working etc., and they were informed of what they could expect from Universal in return. Candidates were expected to be inter-disciplinary team workers, able and willing to share their personal knowledge with others in a highly co-operative and collaborative fashion and also able to sell and market their expertise to clients. In return, Universal would provide ample resources for project work, in terms of an extensive knowledge base internally, finances and equipment, in conjunction with high levels of personal autonomy and relative freedom to experiment.

The overriding importance attached to candidates' social fit at Universal, implied that a degree of cultural homogeneity was sought across the organisation. The Founder considered this homogeneity to be the key to innovation at Universal.

He stated

“The problem is that the innovation process is really made most effective by homogeneity. The more you pile people together and make them as one, the more likely it is to be innovative”.

It is evident however, from the profile of the workforce that homogeneity was not sought in terms of background, expertise etc. Rather, homogeneity was sought specifically in terms of broad occupational grouping, well developed expertise, dominant shared values and ideals. For example, candidates were expected to be willing and able to communicate and share their knowledge with scientists from multiple disciplines during project work. At the same time, the significant autonomy they were afforded implied that they were expected to be self-motivated to experiment outside of project work also. This was

emphasised by the HR manager when he stated that consultants were expected to be 'naturally innovative'.

The turnover rate was very low at Universal, running at about 9% annually overall and 6% for consultants. This is well below the consultancy industry average estimated to be as high as 25% in the largest global management consultancies (Bergström, 1997). Thus this particular approach to recruitment and selection could be considered valid in this organisational context – a structural conditions that researchers consider necessary in problem solving PSFs (Lowendahl, 1997). Expert consultants at this level in the industry have the potential to be highly mobile and the salaries offered at Universal were only considered to be average and for young, relatively inexperienced consultants, actually slightly below average. However as the HR manager commented:

“We have a lot more to offer than simply a salary”.

There was then, an overriding emphasis placed on the attraction of the organisational environment that had been created in which expert consultants worked. The environment was characterised by significant autonomy reflected in the overall organisational configuration described in the following section.

#### **4.4 The organisational configuration**

During separate interviews with senior organisational members and the HR manager, all stated that throughout the firm's history an emphasis had been placed on maintaining a single status, egalitarian environment. The divisional organisational structure that was introduced in 1991 to provide financial accountability was not considered to have changed the configuration fundamentally. Thus the firm was characterised as egalitarian, single status, collegiate and highly informal. The divisionalised structure initially consisted of 5 divisions; Applied Science Innovation (ASI); Business Innovation (BI); Business Information Technology (BUS); Communications(COMMS) and Engineering(ENG) reflecting specific areas of skill and expertise and providing importantly, greater

accountability. Consultants, subject to their particular area of expertise, were allocated accordingly. At the time, the structure was perceived only as a tool to provide financial accountability. It was not perceived to be a threat to project working, which had always been characterised as inter-disciplinary.

At the time of the research (1996-97), 7 divisions existed including Life Sciences (LS) and Technology Process Reengineering (TPR). This growth had not been incremental. Over the five year period, divisions had been created, merged and disbanded, typically for reasons of financial performance or reflecting new sectors such as bio-technology. These changes and shifts were considered to be indicative of the 'fluidity' within the company. This term was used often used in organisational discourse to describe the dynamic, highly informal organisational environment. However, mergers and dissolutions appeared to have been reactive rather than proactive and were often related to the acquisition and completion of large projects.

During interviews with consultants and support staff however, notions of egalitarianism and single status were strongly contradicted and it became evident that an informal hierarchy existed which, whilst was not explicitly articulated, was perceived and acknowledged by all organisational members. Comments were made such as

"In terms of line management I'm kind of second from the bottom of the heap. I manage a skill group and yes, there is no hierarchy, but there is".

"As a woman I don't feel that I've had that many problems here. I know it's very hierarchical here and at first I thought I was aware of this because I'm a woman, but it's not that".

"When I first came here, I was working as a skill set manager several steps down from a divisional manager. Everything got channelled through the divisional manager even if I was sitting there. All the information went through that channel and then got passed on. It was ridiculous because the divisional manager wasn't the expert in my field".

Internal representation on the Universal Board consisted of the Executive Chairman (Founder), Chairman and Managing Director. This was supposedly the only layer within a flat egalitarian environment. The MD had overall responsibility for day-to day operations and thus had an important administrative role to play in an organisation characterised by very low levels of formalisation. The Chairman assumed joint financial responsibility for the firm with the Founder. The MD was considered to be a highly accessible and responsive individual and there was general consensus across interviewees that the organisation was managed efficiently and energetically by him, albeit in somewhat of an ad-hoc manner.

Below this hierarchical level there was a management level, consisting of seven divisional managers, HR, PR, marketing, legal and finance managers. Then, below this, within each division, there were skill group leaders responsible for one or more expert consultants. Senior organisational members and divisional managers performed an administrative, managerial role in the organisation but they spent the vast majority of their time as active expert consultants working in projects continually. Managers suggested that labels such as 'manager' and 'director' were indicative of a role structure, required purely to provide visibility and points of reference to the external environment and clients. These labels, it was suggested, had no real meaning within Universal's egalitarian environment, thus de-emphasising hierarchy. This approach was also noted by Alvesson (1995) in his study of Enator.

They supported this argument by emphasising that consultants were not formally 'promoted' to a divisional manager position. At the time of the research several divisional managers were remunerated far less than some of the consultants working within their division and the decision regarding appointment to the position had to be consensual across a division.

It was also stressed by divisional managers that self-managed project team working, in which project managers were drawn from right across the organisation, characteristic of the egalitarian environment, was the overriding configuration, subsuming any formal role definitions that existed. However, the significant role divisional managers performed in managing performance and the statements (above) during interviews contradicted this interpretation and this is discussed in the following sub section.

Thus there were differing perceptions but equally valid interpretations of the organisational configuration, highlighting multiple interpretations of reality. Senior members of the firm emphasised the flat, single status environment and this was evidenced in the way the firm organised around self-managed project teams. However it was also evident from consultants comments that everyone was conscious of a subtle, hierarchical ordering within the firm which contradicted notions of egalitarianism. In the following sub sections other aspects of the organisational configuration are considered in order to assess to what extent Universal resembled an operating adhocracy, the configuration considered to promote innovation (Mintzberg, 1983)

#### **4.4.1 Formalisation within the firm**

##### **(i) Hours of work and holidays**

Efforts then had always been directed towards maintaining low levels of formalisation. Informality was symbolised by no specified hours of work or formal holiday arrangements, no formal salary structure, no career structure, no requirement for consultants to perform any administrative duties and an internal telephone directory, which (confusingly) listed everyone by first name. Support staff and consultants were able to choose their hours of work. However in reality support staff were expected to work approximately 37 hours each week and most worked typical hours between 8am and 6pm. Consultants however had far more latitude with regard to working arrangements and it was common for some to work through weekends and statutory holidays including Christmas. Those consultants that

chose to work in this way tended to work intensively for months and then take extended holidays. Some would take 2-3 months off at any one time and this was considered to reflect the personal autonomy afforded to everyone within the firm.

The performance management system discussed below was the only formal system that directly affected consultants. Consultants were not expected to account for their time, which is highly unusual within consultancy firms. Very few firm-wide events or forums existed and consultants were not burdened with any administrative responsibilities. Hence personal autonomy and the time available for project working was significant.

#### (ii) Training and development

Support staff were encouraged to participate in training and development and were provided with resources (financial and time) specifically for this. For example, several support staff were pursuing part-time postgraduate qualifications during the period of the research. Consultants, other than the most inexperienced who were involved in MBA studies, were supported to participate in conferences etc and pursue their own professional development. However, no serious consideration had been given to the provision of formal training and development for consultants. The HR manager expressed his concern with this. He had drawn up a set of guidelines for divisional managers with regard to induction for new recruits. However he was aware that some followed these and others did not. He was also actively negotiating with senior organisational members to introduce more formal training with regard to project management and marketing skills. However these negotiations proved unsuccessful as no formal training was introduced during the research period. Both senior organisational members and consultants preferred a highly informal approach which relied upon less experienced consultants learning from more experienced consultants within the firm, generally during project team working.

### (iii) Performance Management

Low levels of formalisation were evident also in the approach taken to performance management. However, significantly the performance management process was a reflection of the role and power structure that existed within the informal hierarchy at Universal. Prior to the introduction of a divisionalised structure, performance was actively not managed. Consultants could choose to discuss their performance with the Founder and request an increase to remuneration but this occurred in a highly informal, ad-hoc manner. Since divisionalisation, it was the responsibility of divisional managers to subjectively rank consultants' performance within their division annually, in preparation for an October salary review. However, no formal pre-defined salary structure existed as

*“simply to have one would be to put people into boxes within grades” (HR Manager)*

Individuals then (support staff and consultants) joined Universal on a starting salary that was negotiated with the MD and the respective divisional manager. A huge salary range existed across the organisation and no attempt was made to achieve parity. In some instances highly experienced consultants commanded far higher salaries than divisional managers. Consultants remuneration when joining Universal, reflected then what had been jointly agreed, their expertise and experience were worth. From that starting point performance was assessed annually using the following criteria

- personal revenue achieved
- contribution to sales
- contribution to culture

These criteria were supposed to reflect a combination of

*“performance measures and a concept of value to the organisation which is bigger than performance”.*

The divisional managers using these criteria made an evaluation of all consultants within their division, which did have an influence on subsequent pay awards. Formal discussions about individual performance however, still did not occur. However consultants were free

to discuss the evaluation of their performance with their divisional managers. Including contribution to culture as a major criteria for measuring performance appeared to be a proactive attempt by senior organisational members to highlight the significance of the development and perpetuation of a strong organisational culture which would maintain innovation and invention processes at Universal. The Founder had defined these criteria for performance at the outset and these were still used in a more formal way with the introduction of divisionalisation. However, the HR manager acknowledged that a performance assessment based on contribution to organisational culture was “quite woolly”. He could not define any measures for this but suggested that this included active participation in company decision making, inter-divisional co-operation etc. He also stated that whilst everyone ‘knew’ what the criteria were, they were not formally articulated. Fundamentally then it was divisional managers’ subjective judgement of these criteria that determined individual ranking. Theoretically, the performance criteria were equally weighted. However, in practice weightings varied depending on the financial state of a division at the time of performance evaluation. For example

“If a division is in a start-up phase, they (the divisional manager) will put a lot of emphasis on sales and less on the Universal culture”. (HR manager)

Once the divisional managers had ranked everyone, they met to negotiate where their ranking lists inter-linked. This process provided an overall organisational ranking of everyone. This was then compared to the salary budget in order to move salaries closer to the rank ordering. It was apparent that this was a highly political process whereby particular divisional managers could significantly influence the process. Those divisional managers who generated most revenue could argue for greater proportions of the increase to the salary budget.

Under performance was an issue that interviewees were reticent to discuss. The HR manager stated that if someone under performed they would probably not receive a salary

increase that year. Other interviewees suggested that they were aware of a small number of under performers within the organisation. Whilst it was evident they were under performing based on monthly figures produced from the performance management system, it appeared to be tolerated by senior members of the organisation. Personal revenues were the only tangible measure of performance and together with divisional revenue these formed the basis of the only formal system existing at Universal – the performance management system.

#### **4.4.2 The Performance Management system**

The system focused on divisional revenue targets (DRTs) and personal revenue targets (PRTs) which were established by the Board at the beginning of each financial year and monitored monthly. In order to highlight and reinforce the emphasis management placed on egalitarianism, a decision was taken to apply the same monthly PRT to all consultants, regardless of age, experience etc. Hence DRTs were the accumulation of PRTs, premised on the number of consultants within the divisions. By default then, the larger divisions had to generate more revenue. Revenue was generated through project work, which was generally priced at a flat rate for the project rather than hourly consultancy fee rate. The ‘lead’ consultant (potentially anyone within the firm) was responsible for negotiating the value of the project with the client, after careful consideration of the resources that would be required in terms of breadth of expertise and time. Once the value of a project had been agreed with the client, it was then the responsibility of individual consultants who expected to work on the project, to negotiate with the project leader, exactly how much of the project revenue would be allocated to them. As there were no formal systems to record these negotiations e-mail messages served as a record of any negotiations that had taken place. The allocation of project revenue then contributed to individual consultants’ PRT and the DRT to which they were assigned.

The introduction of the performance management system had not changed the way in which project leaders were appointed. Project leaders at Universal had never been formally appointed, they emerged based on level of involvement with the client. Relatively inexperienced consultants could in principle lead projects and would be helped to manage projects by more experienced consultants. Over time, inexperienced consultants were expected to develop their project management skills. These tended to be fairly idiosyncratic, as most had not been provided with any formal training. Thus there were no standard procedures for managing or documenting projects (see section 4.5.2). Situations could and did exist then whereby a consultant who was relatively young and new to a division could be managing a project which 'employed' the divisional manager. This is a particularly symbolic aspect of the mode of organising within Universal, where senior organisational members attempted to highlight and reinforce perceptions of egalitarianism and a flat structure based on self-managed project team working. Senior members of the firm described PRTs as a scheme for making people sell their skills and expertise to other people in an effective manner

"It is a micro economy. It is a free market for expertise. Over the years it has been the subject of much controversy as it puts a lot of pressure on people and it is in this way that we try to maintain a competitive, (some would say combative) environment, which does create tension but at the same time enhances innovation given by the rate at which new ideas come out of the organisation".

(Founder)

Divisional revenue should have accrued then from a variety of inter-disciplinary projects on which divisional members were engaged. However, DRT's were at the time of the research considered to be a major threat to inter-disciplinary project working because in practice, project leaders were motivated by the system to keep project work within their own division, in order to accrue greater divisional revenue. Divisional managers clearly had some influence over project leaders within their own division, by virtue of their role in performance management. Thus they were in a position to influence project leaders as to

the constitution of the project team and strove to hoard project revenue within the division.

(Project team working is discussed in section 4.5)

Everyone interviewed agreed that historically consultants from different skill groups had worked together in project teams bringing together a multiplicity of expertise. Obvious benefits were perceived from this way of working both for individuals and the organisation as a whole. Experts shared their knowledge freely with others in the project team, enlarging and amplifying their own knowledge base with new knowledge from different scientific disciplines. At the same time, the team jointly created new knowledge in the form of IPR and innovations that were sold to clients. This combining and sharing of knowledge was considered to be fundamental to processes of innovation and invention, by those interviewed and was referred to in organisational discourse as the 'Universal Way' of working.

However, once divisionalisation had become established and driven by a performance management system that specified DRTs, the level of inter-disciplinary working was considered to have diminished significantly, despite the continued, espoused value placed on the sharing of interdisciplinary knowledge and collaboration. For example, the divisional manager of Life Sciences was forced to consider employing external physicists for a project within her division in 1996, because internal physicists were demanding too great a proportion of project revenue, in return for their expertise. Comments about inter-divisional working were made such as

"Well it happens sometimes, supposedly".

"In the ideal world we do a lot but the reality is that certainly if our numbers aren't looking good then there is a total inward view".

"The metric in this place measures tasks and my personal opinion is that these inter-divisional barriers will become more and more fixed with time if we do nothing as the organisation gets larger".

“I think a lot of it’s not about changing systems but attitudes - getting people to work together”.

Senior organisational members’ perception of the impact of the system on project working was exemplified in the following comment

“I don’t think there is competition between the divisions. What happens is that some divisions are very self-contained in that they encapsulate a very clear area of expertise that is needed in its own right by the clients, they don’t need to draw on expertise from any other divisions”.

It was evident that their perception of the degree and scope of inter-divisional working was markedly different to that of the expert consultants, highlighting a degree of ambiguity around the notion of inter-disciplinary working. The Founder spent considerable time discussing the advantages of inter-disciplinary working in numerous forums and interviews and wanted to believe it still occurred because of the obvious benefits in terms of innovation and invention and past organisational performance. However, most of the consultants interviewed (including divisional managers), identified the perpetuation of inter-disciplinary project team working as a major issue that needed to be addressed. Individual consultants recognised that they acquired new knowledge through inter-disciplinary working and this process was obviously constrained by diminishing inter-disciplinary work and enhanced levels of project work that involved only members of one division, who generally had the same, or similar scientific backgrounds. It was also a cause for concern at the organisational level, because consultants were encouraged to market work (by their divisional managers), that could be accommodated using only the resources within their own division. Divisional managers believed that this potentially constrained the market offerings to clients.

Since 1991 then as more divisions emerged and others developed, the incentive to work in an inter-disciplinary mode had diminished to some extent. There was consensus that co-operation, collaboration and knowledge sharing was still occurring, but to a far lesser degree.

Importantly then, knowledge creation processes and individual's motivation to create knowledge, were encouraged significantly by PRTs and DRTs. However, the same system also paradoxically constrained process of knowledge creation. The dual influence of the performance management system can be described thus. PRTs were considered to be challenging and could only be achieved if individual consultants were continuously active in projects. Some allowances were made for new consultants and importantly under-performance was tolerated. However, performance was assessed according to the individuals' ability to sell projects to clients and achievement of PRTs. Consultants at Universal perceived themselves to be elite both within the scientific community and the consultancy sector more generally. Organisational discourse focused on success rather than failure and there was a profound disregard for the abilities and expertise of other consultancy firms offering similar services. Consultants were then motivated to work at whatever level was necessary to achieve PRTs, for if they under performed they could no longer be considered to be as good as the rest of the elite workforce. The system then importantly seemed in part to manage some of the inherent tension between efficiency criteria and the characteristic uncertainty of knowledge creation. Whilst success could never be guaranteed, consultants were motivated to expend considerable efforts applying their expertise and knowledge across multiple projects. The competition which was generated then by the internal market for expertise and knowledge significantly shaped behaviour, thus facilitating processes of knowledge creation.

At the same time however, DRTs potentially constrained processes of knowledge creation. If a divisional manager was struggling to achieve DRTs, he or she would be motivated to keep whatever project work acquired at that time, within the confines of the division, even if that meant that certain expertise and knowledge might be lacking from the project. Consultants would then have to rely only on their divisional expertise and knowledge to satisfy client requirements. Several consultants commented that during the research period

they had been involved in projects, which would have benefited from expertise within other divisions. However, because formally enlisting the help of consultants in other divisions would have diminished the amount of project revenue accruing to the division, this had not occurred.

It needs to be emphasised however, that whilst the organisation appeared to be dominated and individual's behaviour shaped by revenue targets, there was still not an emphasis on profitability during the period of the research. Revenue targets were set each year and profitability was estimated loosely as a percentage of revenue. However, overheads were susceptible to significant changes. For example, new expensive consultants might join the firm and projects could require significantly more resources than had been estimated. All these factors could have a significant impact on profitability. However adjustments were only made at year- end. Tight financial control and overall levels of profitability were fundamentally de-emphasised. In a firm that had grown to the size of Universal with an estimated turnover in 1996 of 28 million GBP, this could be considered untypical. It appeared then that the leaders of Universal were more inclined towards profit satisficing behaviour (Simon, 1957) rather than profit maximising behaviour, focused only on generating sufficient profits in their markets to survive and compete. The firm was still led and managed by scientists and technologists rather than professional managers. These individuals valued the development of inventions and innovations highly and appreciated the inherent uncertainty associated with processes of knowledge creation. They were prepared to accept that overheads could not be strictly determined and this was reflected then in their loose approach to financial control.

To summarise then, there were generally low levels of formalisation within the firm and very few procedures or routines were formally articulated as organisational policy.

Somewhat inconsistently, however, a highly formalised performance management system

existed that significantly influenced and shaped individual and collective behaviour associated with processes of knowledge creation.

In the following section the extent to which participatory decision making occurred is considered.

#### **4.4.3 Participatory decision making**

The MD would arrange meetings literally on the spur of the moment, as and when an organisational problem manifested itself. Participants in these meetings would be drawn from those consultants who happened to be available at the time, rather than those who may have been the most appropriate to attend (dependent on the subject matter). This was considered characteristic of the egalitarian climate of the organisation, everyone potentially free and equal to contribute to decision making. Lowendahl (1997) has highlighted the importance of decentralised decision making within this type of firm. However, because of the dispersed nature of much of the work activity at Universal, often the MD would take decisions without recourse to others and ultimately there were severe problems of delegation which were exacerbated by the lack of formal structure and as one consultant stated:

“the organisation tends to be run as a monarchy”.

Whilst then no-one criticised the MD for his overall management of the company, centralised decision making did often occur with regard to day-to-day operational decisions, generally for the sake of expediency and consultants would be made aware of decisions after the event, generally via the e-mail system.

There were three other representative forums in operation at Universal; Management Committee, Board of Management (BoM) and the Innovation Exploitation Board (IEB). Management Committee consisted of senior organisational members, the divisional managers, marketing, HR and PR managers and the chairs of the BoM and the IEB. This committee met regularly to review organisational performance. However, discussion

tended to focus on the short term (the next 3 - 6 months), comparing actual work with projected work forecasts, rather than on discussions around medium term strategy. Senior organisational members were considered to lack professionalism by consultants with regard to the overall strategic management of the firm and several consultants commented on the lack of strategic focus. Organisational discourse focused on the 'gung-ho' approach to strategic management – reactive rather than proactive. Senior organisational members acknowledged that historically there had been a lack of overall strategic direction but stressed that a long term coherent strategy did exist based on the exploitation of IPR and an emphasis on the creation of spin-out firms. However, during the period of the research consultants continued to be managed on the basis of PRTs. Whilst funding was available for R&D, consultants were more motivated to achieve PRTs by satisfying client requirements than to work on R&D projects that might generate IPR, which the firm itself could exploit.

No marketing strategy existed or was planned at the time of the research. Market opportunities were continuously explored but rarely exploited. For example, IPR would be developed that potentially could apply to a number of industries and markets. However consultants expended no efforts in exploring other market opportunities. Universal consultants were motivated by problems looking for solutions, rather than solutions looking for markets. Comments made by consultants indicated that they were very aware of a lack of organisational strategy.

*“All the senior directors are technologists at heart. The Founder yes, of course he understands the business, strategy, that kind of thing but at heart they're technologists. It's tough for them you know to think of strategic consulting in a long term perspective and I think that's where the difficulties come in. I think we're a lot more professional than we used to be but I think we lack polish, we're sort of gung-ho and we haven't sort of polished things off.”*

Another consultant commented

“No effort is made to find out why a client chose not to use Universal. They just push ahead looking for new leads, typical of the gung-ho approach, not strategic”.

Thus the espoused strategic direction of the firm had no basis in people’s reality as demonstrated by individuals’ behaviour within the firm.

The Board of Management (BoM) was a form of worker committee. It was an employee elected body, which brought day-to-day operational problems to the attention of senior organisational members. The emphasis however, was on proposed solutions also being offered, indicative again of the emphasis on egalitarianism. The BoM also had the remit of making recommendations specifically with regard for the development and maintenance of organisational culture. For example, the chair of the BoM at a meeting during 1996, recommended that project teams should work in physical proximity to one another for the duration of a project. He had canvassed opinion and found that consultants were prepared to relocate desks in order to facilitate project team working on particularly large projects. The BoM approved of the idea in principle, stressing however that project teams would still remain free to locate as they wished. This concept of relocation was considered to be a way of perpetuating openness and sharing of information and knowledge, considered to be a major organisational issue during the period of the research.

The Innovations Exploitation Board (IEB) met regularly to review opportunities to develop IPR. Most of these opportunities would arise from project work conducted on behalf of clients. Occasionally, opportunities arose by virtue of an individual or group of consultants experimenting internally. The IEB existed then to actively consider all such opportunities and the people on this Board, drawn from across the organisation, had considerable experience in managing the IPR process e.g., patent searches, writing of patents, negotiating IPR etc. The IEB was also in a position to fund ideas that required further resources for experimentation as 6% of company turnover (over 1million GBP at the time of the research) was allocated to the IEB each year specifically for this purpose.

The BoM and IEB had annually rotating Chairs drawn from across the organisation and these forums tended to operate more or less enthusiastically, depending on the interest of the Chair at the time. These forums could arrive at many decisions without recourse to the Main board. Only those decisions that required financial resources were referred to Universal's main board, which acted unilaterally on behalf of Universal.

There was then evidence of some participatory decision making occurring within the firm and a degree of decentralisation. Forums did exist providing consultants with the opportunity to be actively involved in decision making. However, often highly centralised decision-making did occur, but this did not appear to concern consultants. Fundamentally, consultants had great respect for senior organisational members, premised more on their scientific expertise and experience rather than on their ability to effectively strategically manage the firm. Thus they were respected and trusted to operate in the overall interests of the firm, albeit somewhat lacking a professional, managerial approach.

In this section characteristics of the configuration have been discussed in order to interpret to what extent Universal was representative of an operating adhocracy, the configurational archetype considered to facilitate processes of knowledge creation (Mintzberg, 1983). The analysis suggests that whilst senior organisational members emphasised a flat, egalitarian, project team based structure, characteristic of an adhocracy, an informal hierarchical structure actually existed that was tacitly perceived and acknowledged by consultants. In addition hierarchy was emphasised in the Management Committee. There were many opportunities for consultants to participate in operational level decision making and consultants had the opportunity to participate in selection decisions where the emphasis was on candidate's social fit and their willingness and ability to communicate their knowledge to others from other scientific disciplines. Often however, centralised decision making occurred. The Board took all major strategic decisions, although espoused long term strategy was not actively promoted or enacted. Significantly individual and divisional

performance targets were set by the Board and managed by divisional managers. Thus there were evident contradictions and inconsistencies surrounding the degree of decentralisation within the firm.

Significantly however, there were extremely low levels of formalisation, particularly when consideration is given to the numbers employed and the level of co-ordinated action required across the firm during project work. There was a conscious, articulated rejection by senior organisational members of the introduction of any formalised systems, rules or procedures other than the performance management system which, significantly shaped behaviour around knowledge creation processes. Senior organisational members tolerated under-performance and no sanctions were imposed on consultants who failed to achieve PRTs. There was an acknowledgement then that knowledge creation processes were characteristically unpredictable and uncertain and success could not always be guaranteed. Importantly, individual performance was self-managed as consultants were motivated to achieve PRTs premised on their need to maintain their professional and expert standing or identity within the internal elite community of scientific consultants.

Prior to 1991, interviewees suggested that the firm had operated as an adhocracy.

However, ultimately the lack of formalisation and individual accountability had led to a financial crisis. Thus when the Founder took unilateral decisions at that time to introduce a structure and performance management, consultants were not in a position to object to the changes. Considerable efforts had been made since that time, to maintain an organisational environment representative of the spirit of an adhocracy, hence the low levels of formalisation.

At the time of the research then the firm did display some characteristics of an adhocracy (Minzberg, 1983), such as organising around self-managed project teams and a degree of decentralisation. Importantly, senior organisational members had actively sustained low levels of formalisation. However, there was considerable ambiguity surrounding

organisational configuration and structure. Further, there had emerged significant shifts in organising and project team working which were considered to be beginning to potentially constrain processes of knowledge creation. These are discussed in the following section when the nature of project working is considered.

#### **4.5 Project team working and processes of knowledge creation**

Until 1991 approximately 100 expert consultants from a variety of scientific disciplines were loosely associated with either one of two skill groups - communications or engineering. Project working involved different permutations of individuals coming together entirely voluntarily from the two skill groups, according to the nature and requirements of the project, as defined by the project leader. Thus project team working was characterised by the necessary requisite variety (Nonaka, 1994). Project leaders were not formally appointed they would emerge as the individual who had contributed most to securing the project. Project leaders were drawn from across the organisation then and were expected to manage projects regardless of experience.

From the outset, all consultants had been expected to freely share their knowledge and expertise, generally on a face-to-face basis during project work. This willingness to behave co-operatively and integrate individual knowledge with others was a major selection criteria and is fundamental to processes of knowledge creation (Nonaka, 1994; Spender, 1996). Across the organisation when problems arose in project working, announcements would be made (either verbally or via e-mail) for help in resolving particular issues and consultants were expected to respond. However, the introduction of revenue targets had stimulated the development of a value being placed on information and knowledge internally that had previously not existed, creating a market for knowledge. Thus consultants still responded to these announcements but were more guarded with respect to the extent of their response, until they had negotiated their 'fee' for the information or knowledge required. There was no longer a completely free exchange of information and

knowledge inter-divisionally, although intra-divisional value-free knowledge sharing still continued extensively.

Universal appeared also to be a quite self contained unit with regard to knowledge creation. Consultants were asked about external information and knowledge sources and seemed somewhat affronted by the suggestion that they need look anywhere else outside of their own and other consultants' mindsets in order to acquire and create knowledge. Some consultants spoke briefly about having their own personal networks external to the organisation. However, for the majority, these appeared to be quite limited. There was then a general reliance on internal sources of information and knowledge. Consultants also preferred to learn and create new knowledge actively by experimentation and this was encouraged at Universal. Consultants then perceived themselves to be at the forefront in scientific and technological developments, acquiring new knowledge actively, rather than passively. This approach however relied upon access to a wide information and knowledge base internally, which was becoming restricted with shifts towards less inter-divisional working. Further evidence for diminishing levels of inter-divisional working was provided when it became clear that particular divisions had begun to develop autonomous ways of working.

#### **4.5.1 Divisional Autonomy**

Personal autonomy is an important aspect of knowledge work (Alvesson, 1993). However the blending and combining of different areas of expertise is also an important aspect of the invention and innovation processes which had in the past always been emphasised, recognising the need to promote requisite variety and redundancy (Nonaka, 1994). Project team working was characterised by individual and group experimentation and often, fairly heated debates about ways to proceed when problems arose, characteristic of the intellectual conflict necessary for processes of innovation (Leonard and Sensiper, 1998). Once divisionalisation was established, specific modes of organising within divisions had

began to emerge. It was clear that divisions would, to differing extents, develop methods of working according to specialist skills in their particular scientific discipline. However, historically there had been consensus regarding the 'Universal way' of working, which had avoided the pitfalls associated with access to only a narrow, limited knowledge base. Brainstorming sessions would also be convened regularly, involving anyone who had something to contribute to the problem resolution. Know-how trading (von Hippel, 1980) and the promiscuous sharing of ideas was stimulated in this context as consultants recognised the potential gain of combining knowledge with others was high (Kreiner and Schulz, 1993). Problem resolution generally resulted in successful project outcomes and contemporaneously the individual consultants' knowledge base was generally amplified and enlarged. Project tools did exist at Universal. However these tended to be idiosyncratic approaches that had been developed intra-divisionally. Rather than the usage of these tools becoming obligatory throughout Universal, they were constantly refined or became obsolete. Thus there were no 'best practice' templates in existence that could serve to potentially constrain processes of knowledge creation (Starbuck, 1992).

The trend however, at the time of the research, was a move away from openness and knowledge sharing, to more focused knowledge acquisition, which did not necessarily involve consultants from other divisions. In conjunction with this, some distinctive features of divisional autonomy had also begun to develop. For example, the communications (COMMS) division, considered to be the most well established division in the firm, operated in almost complete isolation from the rest of Universal, at the time of the research. This was thought to have occurred as a result of the move to the new site in 1994. COMMS consultants did have office space on the open plan first floor of the main office building but spent most of their time, conducting project work in their labs on the ground floor. A situation had developed in the two years leading up to the research period, whereby the majority of project work COMMS consultants were involved in, was of a

significant duration (12 – 18 months). This work genuinely only required the expertise within the COMMS division. Resources in this division were stretched and thus it was also unusual for COMMS consultants to become significantly involved in other divisions' projects. Comments were made about the isolation of the COMMS division.

“Unfortunately, no-one talks to them. It's really bad, we're just as guilty as they are”.

Senior organisational members acknowledged the situation existed but did not perceive it to be problematic or a threat to project working

“I think people in other divisions may feel, I think wrongly, that they (COMMS) are less interested in collaboration and co-operation. It just so happens they are involved in some very big projects and their heads are down”.

Divisional managers and others were also explicit during interviews that particular divisions were developing new ways of project working. For example, one consultant stated

“One of the things is, and I believe this is happening in other divisions although I can't tell because I don't know what it is like to be in another division, but against all propagated policy of the company, the division has decided to set up its own particular flavour of service and to try and deliver that. It's been good for the division because it's got a sense of identity and a sense of purpose and all the people in it feel a very strong sense of team spirit but unfortunately, it's a localised team spirit whereas before we used to feel a company wide team spirit. Now we've got a team of 10 and we're very focused in going in one particular direction and that encourages us to work on projects by ourselves, we all understand where we are going. Whereas if we get someone else in from another division, we're not sure that they will represent the same kind of philosophy to a client or whatever”

Another divisional manager commented

“There are a number of people in other groups, I've got a list of about 8 people in Universal which I call friends of TPR (Technology Process Re-engineering) who are people who have got a specific background and interest to want to get involved in the sort of work we are doing and what we are doing is systematically introducing them into our projects - our way of working is different. So we

are trying to do that fairly systematically. It's a published list within TPR, we all know who the friends of TPR are. So everyone has a standard instruction, to involve these guys whenever we can".

These quotes highlight the manner in which the 'Universal Way' of working was beginning to break down in the firm during the period of the research. Divisional revenue hoarding and divisional autonomy were constraining inter-disciplinary project team working to a significant extent. The 'Universal Way' characterised by inter-disciplinary team working, primarily on a face-to face basis was shifting towards divisional ways of working where efforts had been directed at developing standardised and to some degree less conflictual approaches and methods. Profits had concurrently begun to decline slightly, indicated by a diminishing return on investment. Fundamentally however, project working whether occurring intra or inter-divisionally was highly informal. An illustration of the highly informal approach to project work was reflected in the development and use made of project documentation. This is considered in the following sub-section.

#### **4.5.2 Project Documentation**

There were no formal procedures or standard forms used to document project work at Universal. All projects were documented technically in a manner the project leader deemed appropriate. This approach had always been used, reflecting the Founder's belief in the autonomy and expertise of the individuals employed by Universal. Divisional managers had attempted throughout the years to encourage project leaders to place all project documentation on the projects database. However, in practice and reinforced by a lack of any control mechanisms, previous project documentation was relatively problematic to access. A minority of consultants claimed they located their documentation on the projects database. However, some consultants admitted they were not consistent about this. Others, more typically, chose to amass all documentation in hard copy at the end of a project and place it in the company library, which was situated remotely from the main offices.

Fundamentally, there was little importance attached to creating and maintaining good quality, accessible project documentation because it was rarely going to be referenced again. Consultants were not specifically encouraged to use objectified (social/explicit) knowledge (Spender, 1996) acquired in previous project work. There was general consensus during interviews that consultants preferred to learn for themselves by experimenting, applying known scientific facts and knowledge to new problems rather than spending time referencing previous project work, which might have relevance for current projects. During interviews, several consultants suggested that Universal consultants were keen to “reinvent the wheel” because they felt this activity enlarged and amplified their individual knowledge base. They enjoyed the autonomy they had to do this within the firm. An interesting paradox is presented here in that it was processes of reinvention that were considered to be pertinent for innovation and knowledge creation, highlighting the way in which organisational conditions that promote redundancy facilitate knowledge creation (Nonaka, 1994). The nature of project working which in many case was still characterised by some inter-disciplinarity also promoted conditions that were characterised by requisite variety also considered fundamental to processes of knowledge creation.

#### **4.5.3 Time pressures during project work**

The flat rate approach to project costing relieved consultants of the necessity to strictly account for their time spent on projects, more typical of the consultancy sector in general. Hence, within the anticipated time frame of a project which would be estimated by the project leader, consultants were free to experiment. This approach was considered to enlarge and amplify both individual and collective knowledge bases. It was in consultant’s interests to complete project work successfully and quickly and the performance management system motivated consultants to be involved in a number of projects at any one time. However, consultants were free to experiment during project working and they

were also provided with financial resources by the IEB for experimentation outside of project working. Importantly then, any time pressures experienced by consultants tended to be largely self imposed and were not considered to constrain processes of knowledge creation. This contradicts Starbuck (1992) who suggested that time pressures could be a significant barrier to learning within KIFs.

#### **4.5.4 Project working – a summary**

Clearly, Universal relied on group problem solving and decision-making within project teams in order to develop inventions and innovations for client. This approach is considered to be appropriate for integrating specialised knowledge for complex tasks (Grant, 1996b). PRTs served as an important co-ordination mechanism, motivating consultants to actively and efficiently share and integrate their knowledge during project work. Conversely, DRTs served to potentially constrain processes of knowledge creation. DRTs had led to a general trend towards intra-divisional, rather than inter-divisional project team working. This potentially limited the available knowledge base from which to draw upon in project team working, reducing requisite variety considered to facilitate knowledge creation (Nonaka, 1994). Consultants were also aware that intra-divisional working limited the potential for enlarging and amplifying their individual knowledge base as opportunities to work on projects that consisted of individuals with different expertise and knowledge were significantly curtailed. Thus efficiency criteria manifest in PRTs and DRTs placed different demands on the way knowledge was shared and articulated. Despite a trend towards intra-divisional working, high levels of collective knowledge (Spender, 1996) had developed across the organisation over time. The majority of consultants at the time of the research had considerable previous experience of inter-divisional project working. This had provided a context in which organisational members had shared common experiences and had developed a significant level of shared tacit understanding and appreciation of different scientific disciplines such that a common

language existed across experts from different scientific disciplines. For example, on one IT development project, an astro-physicist worked alongside three electrical engineers developing software for a global communications corporation. She had worked with these individuals on different types of project over a number of years and despite a very different scientific background, she was able to communicate, share and integrate her knowledge with the rest of the team. Collective knowledge then facilitated the integration of individual knowledge during project team working.

#### **4.6 Universal Consultancy – A summary**

Structural aspects of the organisational context at Universal Consulting and modes of organising internally have been considered in this chapter in relation to the existing literature within organisational theory and strategic management which has focused on organisational processes of knowledge creation (c.f. Alvesson 1993, 1995; Starbuck, 1992; Nonaka, 1994; Spender, 1996; Grant, 1996b; Lowendahl, 1997). The analysis presented here suggests that Universal displayed many of the organisational attributes considered in the literature to facilitate knowledge creation processes and few of the attributes considered to constrain processes of knowledge creation. The firm was characterised by self-managed project team working, high levels of autonomy and low formalisation and was therefore, in many respects characteristic of an operating adhocracy (Mintzberg, 1983).

The recruitment and selection process had over time changed from a general ad-hoc approach to one that was more systematic, yet social fit remained the dominant selection criteria. Social fit implied shared normative values regarding the importance of sharing and integrating knowledge with others, exceptional levels of expertise, commercial awareness and the ability to communicate effectively with others. The recruitment and selection process was valid (in terms of processes of knowledge creation) in so far as a significant degree of diversity had been promulgated within the firm, promoting an organisational

environment characterised by a broad, expert knowledge base and requisite variety.

Retention rates were very good. Consultants enjoyed working in a highly informal, autonomous organisational environment where ample resources were made available for processes of knowledge creation, including importantly sufficient time for experimentation within project working.

Project team working relied primarily on face-to face communication between experts within and across scientific disciplines. There was some limited evidence to suggest that knowledge was becoming sedimented in project tools within divisions but widespread usage of project tools was not apparent. PRTs served as an important knowledge integration mechanism within the firm (Grant, 1996b), motivating individuals to share their knowledge with others. Over time, and premised on the relative stability of the workforce, collective knowledge had developed in the firm. This also facilitated processes of knowledge creation.

Interpreted thus and based on the existing literature, there appeared to be many aspects of the organisational context facilitating processes of knowledge creation. However this analysis is too simplistic because there were important aspects of the organisational environment that were paradoxical and inconsistent which contradicted espoused notions of egalitarianism and autonomy. For example, an informal hierarchy existed which was tacitly acknowledged by consultants but never articulated in formal organisational discourse such as meetings. This informal hierarchy was acknowledged as existing in parallel with project team working, reflecting both an informal matrix structure and concealed power and status. Whilst bureaucratic systems and procedure were abhorred by consultants and self-management and personal autonomy were emphasised, paradoxically there existed a performance management system which exerted direct control and shaped individual and collective behaviour significantly. At the time of the research, this system was beginning to be perceived as constraining processes of knowledge creation. This

highlights the inherent problems of managing the tensions that exist between autonomy and control within KIFs. In addition, whilst efforts were directed towards participatory and consensual decision making often somewhat inconsistently, decision making was highly centralised. Senior organisational members suggested the firm did have a long term strategic focus, however expert consultants perceived the firm to be lacking in professional, management and were unsure about the long term aims of the firm. This was significant insofar as the firm had existed long enough according to literature on organisational life-cycles to have introduced professional management focused on efficiency concerns (Greiner, 1972). The organisational environment was then characterised by ambiguity manifest in paradox, contradictions and inconsistencies (Martin, 1992). In order to develop this analysis then attention is focused in the following chapter on organisational culture, dimensions of power and the nature of trust relations within the firm. This analysis will highlight the manner in which the inter-action and inter-relationships between these more deeply embedded organisational phenomena significantly contributed to sustaining processes of knowledge creation within Universal.

## **Chapter 5 An analysis of the cultural and social conditions that existed over time at Universal Consulting**

### **Introduction**

In this chapter, the role of cultural and social conditions in processes of knowledge creation will be analysed. Section 5.1 will present an analysis of the organisational culture. This analysis will be structured according to Schein's (1992) framework which highlights the approaches that leaders of firms can adopt when attempting to transmit organisational culture and shape individuals' perceptions of organisational reality. This has been referred to as actively engaging in the 'management of meaning' (Alvesson, 1996). The analysis will draw upon the detailed description of the case presented in Chapter 4. The analysis will also consider evidence in support of multiple perspectives on organisational culture (Martin and Meyerson, 1988; Martin, 1992). Consideration will then be given to the perspective that offers most explanatory power with regard to individual and group behaviour within the firm. The following sections (5.2 and 5.3) will then consider the nature of organisational relations within the firm, in order to analyse the influence of power and trust on processes of knowledge creation. In section 5.4 the inter-relationship and inter-play between these aspects of the organisation will be considered in order to interpret their influence in combination, on sustaining processes of knowledge creation within the firm.

### **5.1 Organisational Culture**

As noted earlier, Universal Consulting had existed for 11 years at the time of the research. Despite a fundamental change in ownership early on in the research, the firm was still led and managed by the Founder and two senior members of the firm. They had complete operational autonomy and were therefore responsible for the development and perpetuation of many of the cultural mechanisms that existed at the time of the research. The way in

which these mechanisms were symbolically perceived and interpreted by organisational members is discussed in the following sub-sections.

### **5.1.1 Perceptions of the primary embedding mechanisms**

#### **(i) What leaders paid attention to, measured, and controlled on a regular basis**

At the time of the research, senior organisational members only paid attention to revenue streams, comparing actual divisional revenue to DRTs, on a monthly basis. Overall organisational profitability was loosely estimated as a percentage of total revenue highlighting loose financial control within the firm. At the end of the financial year adjustments were made based on actual turnover and overheads. As Universal's ability to generate revenue was premised solely on its ability to develop new products and innovate, then by inference here, leaders were attempting to monitor but importantly not control the knowledge creation process at Universal. The performance management system then served to reinforce the importance placed on knowledge creation.

Considerable attention was given to divisions that were failing to meet their targets on a regular basis and under-performing divisions were perceived to be an organisational, rather than simply a divisional problem. Efforts would be made across the firm to support under-performing divisions. This approach highlighted the co-operation that still existed across the firm despite the problems associated with a divisional structure referred to in Chapter 4. Organisational identity was premised on scientific elitism and professional success.

Under-performance (of whole divisions) was therefore perceived to be a threat to organisational identity and any measures deemed necessary to overcome such problems would be taken, even if that meant disturbing the equilibrium of the internal market for knowledge.

It is important to acknowledge here that, prior to 1991, very little attention was focused on financial control. Attention was paid to the acquisition and completion of projects but financial monitoring was virtually non-existent. Several consultants who worked at

Universal during this period suggested that it was a shock to everyone that the organisation had started to make a loss. The problem had not been foreseen because there was so little monitoring and organisational identity was firmly grounded in success. Consultants at this time chose which projects to work on, resources were not constrained and consultants were trusted to organise around developing inventive and innovative solutions for clients efficiently but highly autonomously, typical of an operating adhocracy (Mintzberg, 1983). This approach worked well for 5 years and highlighted the way in which significantly more emphasis was placed on knowledge creation criteria (autonomy and resources) than efficiency criteria. However, ultimately such extreme loose coupling of actions and outcomes became problematic highlighting the inherent tensions between efficiency and uncertainty (a defining characteristic of knowledge creation) within expert consultancies.

(ii) How leaders reacted to critical incidents and organisational crisis

A significant critical incident that had occurred during Universal's history was the financial crisis in 1991. The Founder acted very promptly by downsizing, and introducing a performance management system (where nothing had existed before), which overlaid a divisional structure onto project team working. Consultants who were at Universal at this time stated that no one resisted this change, fundamentally because the Founder was highly respected and had always been considered to act in the best interests of the firm. This highlights the way in which his power (Pfeffer, 1992) in the firm was acknowledged and accepted. These actions were perceived to have actually reinforced the Founder's position power for the firm returned to profitability rapidly. It was not possible to establish during the research whether those consultants that left Universal at this time, were actually opposed to the changes that were introduced.

(iii) Observed criteria by which leaders allocated scarce resources

At the time of the research, Universal was operating in a sustained period of profitability and there were sufficient resources available to exploit any opportunities that would lead to

the development of IPR. Thus resources were available and provided even for R&D project work that would take years to realise in terms of generating income streams. Participatory, consensual decisions were taken by the IEB as to the allocation of resources. Importantly however it was not the leaders of the firm allocating these resources but consultants from across the firm, most of whom were self-elected members. This approach then reinforced notions of decentralised decision making and egalitarianism, characteristic of an operating adhocracy (Minzberg, 1983) and suggests that Schein's emphasis on leaders role here might be misplaced (Schein, 1983, 1992).

(iv) Deliberate role modelling, teaching and coaching

It was stated that role modelling, teaching and coaching only occurred in those divisions where the divisional manager chose to manage in this way. Thus, in some divisions, new recruits and less experienced consultants would be taught and coached regarding the 'Universal Way' of doing things and in some divisions standardised approaches had begun to emerge which were informally taught to new incumbents. In other divisions teaching and role modelling did not occur. Thus there was some ambiguity across the organisation, with regard to what constituted the 'Universal Way' of integrating and sharing knowledge in an inter-disciplinary manner. Role modelling and teaching are considered to be particularly important mechanisms for socialising new incumbents into the organisational culture, fostering norms of behaviour etc. (Schein, 1992; Kunda, 1992). This ad-hoc approach to socialisation at Universal however, actually served to reflect the autonomy and individuality that permeated the organisation. The 'Universal Way' in a sense was a strong cultural value that opposed the idea of a single, standard way of doing things. This contradicts simplistic notions of strong (i.e. characterised by homogeneous norms of behaviour) versus weak (i.e. ambiguous) cultures and as such is a significant departure from much of the existing literature (Martin, 1992; Schein, 1992; Willmott, 1993).

Less experienced project leaders were generally supported in their role by more experienced consultants working on their projects. However standardised approaches to project management and project documentation were not promoted. Hence project documentation was highly idiosyncratic and reinforced perceptions of low formalisation and individual autonomy characteristic of an adhocracy (Mintzberg, 1983).

(v) Observed criteria by which leaders allocated rewards and status

The allocation of rewards was discussed in chapter 4. It was evident that individual consultants were rewarded primarily for their ability to successfully market their knowledge and expertise to others, both clients (which resulted in sales) and projects (which resulted in personal revenue). Knowledge and expertise were significantly valued at Universal. This was the currency with which the organisation traded both externally and internally. The ability to market Universal's knowledge base resulted in sales for the organisation and the ability to combine individual knowledge with others in project working, resulted in revenue for the individual. Both of these criteria were measured and those consultants who were most successful at marketing their knowledge were rewarded financially. Status however was de-emphasised and there was a significant absence of any sort of career structure in the organisation. This is untypical generally, even within KIFs which might attempt to de-emphasise hierarchy (Starbuck, 1992; Kunda, 1992; Alvesson, 1995) and suggests that this expert consultancy may have had some particularly unusual features. It is also important to acknowledge that by the time of the research a dynamic, informal hierarchy did exist, the implications of which are discussed and analysed in section 5.3.

(vi) Observed criteria by which leaders recruited and selected organisational members

The process by which individuals were recruited and selected at Universal was discussed in chapter 4. The recruitment process indicated that Universal was prepared to recruit on a global basis, which stimulated diversity within the organisation. This diversity however

was managed in so far as the selection process was dominated by peer involvement and consensual subjective assessment of candidate's social fit. No one interviewed could precisely define what 'fitting in' meant. Thus individual consultants had their own subjective views on what constituted social fit all of which were considered equally valid during selection. This served to promote diversity within the firm and reinforced the importance placed on individuality. Previous research on the selection of knowledge workers has highlighted that KIFs use various methods to establish candidates' willingness to adopt homogeneous norms of behaviour including self-selection procedures (Kunda, 1992; Bergström, 1997). The only criteria however that consultants agreed upon at Universal was a fundamental requirement that candidates should be willing and able to effectively communicate their knowledge to others, even within different scientific disciplines. Thus the approach taken at Universal departs from the existing literature in this respect. This approach appeared however, to manage the tension between the need for diversity, considered crucial for knowledge creation (Nonaka, 1994; Spender, 1998) and the need for a degree of homogeneous behaviour in support of co-operative working (McAllister, 1995; Jones and George, 1998). Significantly again, the participatory, consensual approach to selection reinforced notions of egalitarianism and autonomy within the firm.

It is significant then that most of these embedding mechanisms reinforced notions of autonomy and individuality considered both crucial for processes of knowledge creation (Nonaka, 1994; Spender, 1998; Leonard and Sensiper, 1998) and also were characteristic of an adhocracy (Minzberg, 1983) the configuration considered most appropriate where innovation is a conscious strategy. Notably however, the reactions of the Founder during a period of crisis highlighted his ultimate position power within the firm. This highlights the perpetual tension that exists between autonomy and control within these types of firm.

### **5.1.2 Perceptions of the secondary articulation mechanisms**

#### **(i) Organisation design, structure and organisation systems and procedures**

These were discussed in the previous chapter. Here however it is important to acknowledge and highlight the contradictions inherent in the organisational configuration. Universal had been deliberately designed as an operating adhocracy (Mintzberg, 1983) and until 1991, it appeared from interviewees accounts that it had existed as such, in a relatively pure form. However, with the introduction of a performance management system, an informal hierarchical structure emerged based on divisionalisation. The performance management system significantly shaped individual and group behaviour such that knowledge creation processes whilst sustained, were perceived as becoming constrained by both consultants and divisional managers. The system fundamentally represented incongruity and paradox (Martin,1992) in a cultural environment characterised by low formalisation and egalitarianism. The relevance of this will be analysed in the following section (5.3) when organisational culture is considered from multiple perspectives.

#### **(ii) Organisational rites and rituals**

At Christmas each year, a formal dinner was held at Cambridge University for consultants. Some expert consultants had originated from this University and understood the norms of behaviour expected on such occasions. Those that did not understand what was precisely expected of them learnt the distinctive rules of social etiquette from those that did. Consultants implied that whilst this was not a hugely enjoyable occasion, it was a social ritual that reinforced their professional, scientific identity. It was perceived then to be important as a reinforcement rite and an integration rite at the institutional level (Trice & Beyer, 1986). The importance of integration rites within KIFs has been recognised elsewhere (Alvesson, 1995). Here, the Christmas Dinner was perceived importantly to promote integration across a multi-national scientific workforce.

One of the few regular company wide events was held every Friday during late afternoon. This ritual was described as 'communications'. In principle, it was supposed to be an opportunity for everyone, including support staff, to learn about ongoing projects in an informal, sociable environment. A short presentation would be given by members of a project team and a buffet and drinks would be provided. During the course of the research however, it became evident that over time, these short presentations had begun to occur less frequently. Whilst refreshments were provided, 'communications' occurred only ad-hoc. Some people saw this event as an opportunity to have a free meal before going home and others commented that if members of their own division were not going, they too would not attend, which provided further evidence of divisional parochialism. Friday 'communications' were attempts then to foster social integration across the firm, considered important in KIFs (Alvesson, 1995). Significantly, 'communications' at the time of the research was perceived to have become a ritual that simultaneously reinforced perceptions of divisional autonomy and collaboration, highlighting contradictions and ambiguity with regard to the way in which the ritual was perceived.

#### (iv) Design of physical space, facades and buildings

Universal's offices, laboratories and other facilities were located in two buildings. The main building was hi-tech and Universal's second building was an original, working, water mill complete with a lake and Canadian geese. The site was not specifically designed for Universal however, prior to the move there in 1990, the interiors of both buildings were redesigned to accommodate Universal's requirements. The ground floor of the main building consisted of a number of labs and meeting rooms and had an expensive, clinical atmosphere. The first floor was one open plan office in which all consultants worked when not experimenting. The water mill accommodated a restaurant and the library where project documentation was stored.

The general location, meeting rooms and facilities all served to make the intangibility of the service provided by Universal, more tangible to the client (Levitt,1981). As in Alvesson's study 'the purely functional features of the corporate architecture and interior decoration had taken second place to their expressive, symbolic and communicative functions' (1995:133). The environment in which clients met Universal consultants was very professional and a significant degree of comfort was provided. The water mill and surrounding countryside served to provide an air of novelty symbolically reflecting (to both clients and consultants) the originality and creativity of Universal.

The open plan office where all consultants were located was in sharp contrast to the rest of Universal's physical environment. Whilst in strict definitional terms, it was 'open plan', in reality, space was very limited. The total area was irregular consisting of many sloping ceilings and corners, completely overwhelmed by too many desks and computer terminals to ever permit an impression of space. There were relatively few filing cabinets or drawers. Consequently files, memos and other paperwork were everywhere. This served to give an overall impression of (dis?)organised chaos and creativity.

Despite the physical manifestation of disorganisation, and openness, divisional barriers within the open plan office were also apparent. Some areas were less cluttered than others, different dress codes (formal vs. very informal) predominated in certain areas, and some areas were characterised by a heads-down, polite hush, whilst others appeared energetic and noisy. The Founder spent the majority of his time travelling. He was rarely in the office as he actively explored market opportunities around the world. However, he commanded a prime spacious position in the 'open plan' office.

Several consultants commented that the 'open plan' design was a symbolic reflection of the flat, egalitarian, non-hierarchical organisational structure, which characterised Universal. The layout, in combination with the lack of formal structure and inter-disciplinary project working, was considered to be a substantive cultural attribute serving

to promote creativity and innovation within the organisation. It was apparent that Universal's corporate architecture has been acquired and consciously designed to symbolically reflect this, typical of many organisations (Berg and Kreiner, 1990).

However, the quasi-divisional 'barriers' evident within the open plan office reinforced divisional autonomy and the informal hierarchy and were illustrative of the inconsistencies and contradictions inherent within the organisation.

(vi) Stories, legends and myths about people and events

The only stories about people recounted during the course of the research concerned the Founder. Consultants constantly referred to his pivotal role in creating the unique organising environment at Universal. Stories about the Founder emphasised that he was highly respected throughout the firm for his continued ability to generate market opportunities that generated a considerable amount of project work. In addition there was considerable respect afforded to the energy and commitment he gave to Universal (despite approaching retirement age). These stories highlighted the way in which the Founder served as an exemplar to other consultants working at Universal. Individuals' perceptions of the Founder were also reinforced by his international reputation within the scientific community that was often referred to in both academic journals and the international press. This confirms earlier research by Alvesson (1995) in another KIF. There too in Enator, the vast majority of consultants spoke only positively of the Founders.

In terms of events, at the time of the research, a major spin out company had recently been created. A number of consultants were keen to discuss the implications of the invention that had been the basis for the spin out company. Everyone emphasised the confidence in the invention by external markets, highlighted by the substantial amount of venture capital that had been made available. Stories about this invention and the spin-out firm were recounted on numerous occasions during the research and served to illustrate the focus that

was placed on success in organisational discourse, fostering an elite organisational identity, common in KIFs (Alvesson, 1995).

(vi) Formal statements of organisational philosophy, values and creed

Constant articulation of organisational philosophy by the Founder meant that everyone working at Universal was acutely aware of the Founder's values and beliefs. Publicity and marketing material highlighted the importance afforded to processes of innovation and invention by Universal and inter-disciplinary working. The Founder used any forum he attended to reinforce values such as the importance of knowledge sharing. Whilst these statements were firmly grounded in reality in the past, statements about the importance of inter-disciplinary working had begun to be perceived as largely rhetorical by the time of the research which highlighted the contradictions and inconsistencies inherent within the environment.

This analysis has shown that in many respects the Founder had been relatively successful in promoting a culture that valued individuality, autonomy and egalitarianism, characteristic of an adhocracy (Minzberg, 1983). The Founder perceived this type of operating environment to be conducive to promoting and sustaining invention and innovation processes. However, it has been highlighted that the introduction of divisions and a performance management system had importantly generated cultural contradictions and inconsistencies. To develop this analysis further, consideration is given in the following section to the culture from multiple perspectives (Martin, 1992).

### **5.1.3 Universal's culture analysed from multiple perspectives**

(i) The integration perspective

Prior to 1991, attention had been consciously directed towards promoting a culture that reinforced notions of autonomy, egalitarianism and freedom to experiment, characteristic of an operating adhocracy (Minzberg, 1983). The aim was to create an environment that would be perceived as attractive to the scientific elite, offering ample resources and

considerable personal autonomy in which to experiment. The Founder then had attempted to imbue the organisation with a strong culture that would stimulate creativity and innovation. Significantly, individuality had always been, and continued to be at the time of the research, actively promoted within the firm. The selection process fostered the creation of a diverse workforce and importantly, there was no emphasis placed on shared consensual values, other than those focused on knowledge creation. Symbolic reflections of individuality included consultant's dress which ranged from the conventional to the bizarre (shorts and vest in the depths of winter!). Thus whilst efforts were directed towards shaping a strong culture, the 'Universal Way' was actually characterised by individualism and idiosyncrasy. Importantly, the 'Universal Way' did not aim to shape all encompassing, homogeneous norms of behaviour.

Since 1991 however, unable to sustain a pure 'adhocracy' mode of organising, the Founder had imposed a structure and a performance management system that contradicted many dominant cultural values. This system had a profound effect on the organisational culture as consensual values around knowledge sharing began to be eroded. Consultants began to shape their behaviour in line with the demands imposed by the performance management system. Consultants became increasingly motivated, by what senior management paid attention to and monitored, to restrict their scope of knowledge sharing and collaboration to the confines of their own division. This was perceived as potentially constraining processes of knowledge creation. Thus by the time of the research and despite persistent perceptions of a strong organisational culture, there was a general lack of consensus, there was a lack of consistency and there was a lack of clarity. This analysis has shown then that there was only some qualified support for the integration perspective at the time of the research (Martin, 1992).

(ii) The differentiation perspective

By the time of the research then, divisional autonomy and sub-cultures had begun to emerge in what was generally perceived to be a highly autonomous environment, lending some qualified support for the differentiation perspective (Martin, 1992).

It is important however to recognise that although divisions had been introduced in 1991, these sub-cultures were only just emerging at the time of the research in 1996. This is indicative perhaps of the strength of dominant values such as a willingness to share knowledge and the importance of inter-disciplinary collaboration, which had been perpetuated within the firm for the previous 10 years. It was also apparent, that individuals' perceptions of the extent of to which inter-disciplinary project working occurred tended to be shaped by personal networks and individuals' role within the organisation. Those consultants that had been with the firm for a number of years had developed networks internally of people they enjoyed working with and who enjoyed working with them. These networks then did ensure that inter-disciplinary working still occurred. Whilst acknowledging that this mode of working was diminishing then, some consultants did not experience the problems themselves to a significant extent. At meetings involving senior organisational members, all discussions about market opportunities and current and future project work did not include any acknowledgement of the problem in maintaining inter-disciplinary project team working. Yet during interviews with consultants this issue was always highlighted. Importantly however, consultants were not clear about how to promote organisational debate around this issue in an environment that lacked formal procedures, systems or forums for discussion. This problem had still not been addressed when the research ended almost two years later.

This disparity in perceptions also highlighted some differentiation beginning to emerge between senior organisational members and other consultants. There was however, little evidence of an 'us' and 'them' attitude, fundamentally because it was somewhat

problematic to distinguish who exactly constituted 'them' within the informal hierarchy. (This particular issue is considered further in section 5.3). Thus rather than there being considerable evidence for the differentiation perspective, there was considerably more for the fragmentation perspective, characterised by ambiguity and "*a multiplicity of interpretations that do not coalesce into a stable consensus*" (Martin, 1992:130, italics authors own).

(iii) The fragmentation perspective

The integration perspective offered some limited explanatory power, with regard to the way in which Universal's culture contributed to facilitating processes of knowledge creation by encouraging co-operative and collaborative working. The differentiation perspective highlighted the way in which the emergence of divisional sub-cultures served to potentially constrain processes of knowledge creation. However, throughout the course of the research, it became evident when attempting to understand and interpret the culture, that the organisational environment was dominated by ambiguity. Organisational conditions were characterised by contradictions and inconsistencies. Statements such as the one below, not only illustrate clearly an awareness but also importantly, accommodation of the ambiguity that pervaded the firm

"Nobody in theory has a job title, single status applies but obviously some people are seen as more powerful, more influential, higher status than others, based purely on what they are seen to contribute to the organisation in terms of big projects or particularly innovative ideas." (Consultant)

The commentator here states that single status (equality) co-existed within a power structure in the firm where those that were seen to have more to contribute, commanded more power. These contradictory facts had been deduced from acceptable premises drawn from the organisational environment and were thus paradoxical (Martin, 1992). The organisational environment was then intrinsically ambiguous. For example, considerable efforts were directed at maintaining important aspects of an operating adhocracy (Minzberg, 1983) such as low formalisation, participatory, consensual decision making,

and self-managed project team working. Symbolically these cultural attributes were manifest in a lack of formal hierarchy, systems and procedures, the self-appointment of project leaders and the functioning of the BoM. However, at the same time an informal hierarchy and a formalised control system did exist, the MD autocratically took many operational decisions and divisional managers could, if they chose to do so, significantly influence the constitution of project teams.

Associated with this ambiguity as discussed previously was a general lack of consensus across the organisation, typical of the fragmentation perspective. There was no general consensus as to the actual extent inter-divisional working had been eroded at the time of the research. Senior management appeared to studiously ignore the issue and individual consultants each had their own experience and perceptions of the extent of inter-divisional working that shaped their perceptions of the problem. Thus cultural ambiguity served to promote multiple interpretations of organisational reality that were only discussed informally. No attempts were made to promote a forum for debate. To raise the issue to this level, in what was such an informal environment, could have potentially thrown into question dominant values and beliefs around individuality and autonomy. By accommodating and legitimating organisational ambiguity then, consultants were able to preserve and sustain their autonomy. These complex conditions then served to highlight the inherent tension that existed between autonomy and control within this type of environment that will be explored and developed further in Chapter 8.

This analysis has highlighted the way that organisational culture developed over time and was characterised at the time of the research predominantly by ambiguity. Fragmentation could then be considered to be the 'home' perspective (Martin, 1992). Thus, whilst aspects of Universal's culture could be considered to highlight integration (e.g. the shared value placed on knowledge), and differentiation (e.g. the existence of divisional sub-cultures), it is the fragmentation perspective that offers most explanatory power when interpreting

Universal's culture. Ambiguity is considered to be a temporary state in young start up firms or manifest in times of crisis as firms mature (Martin, 1992). However at Universal organisational ambiguity had existed for a considerable number of years and organisational members accommodated the contradictions and inconsistencies inherent in the operating environment. Importantly, Martin (1992) and other researchers have suggested that cultural ambiguity is common in R&D laboratories and promotes innovation because loose coupling of actions and outcomes promotes experimentation (Martin and Meyerson, 1988; Weick, 1975). These claims and the importance of cultural ambiguity then for sustaining processes of knowledge creation will be explored and developed further in Chapter 8.

In the following two sections (5.2- 5.3) dimensions of power and the nature of trust relations will be considered in order develop the analysis of Universal. In the final section this analysis will be summarised in order to consider the nature of the inter-relationships and interaction of culture, trust and power and their influence on sustaining processes of knowledge creation.

## **5.2 The role of power in processes of knowledge creation**

It has been stated throughout this analysis that senior organisational members claimed a flat, egalitarian structure existed at Universal. However, below their obvious power positions within the firm, an informal hierarchy did exist. Their power and characteristics of the informal hierarchy can be explored by considering multiple dimensions of power (Lukes, 1974). It was evident that senior organisational members had considerable power of resources and processes (Lukes, 1974). These individuals managed most of the organisation's resources and power of processes was manifest in that revenue targets were determined solely by this group. Despite their commanding power positions within the firm however, power was not actually centralised at the apex, it had diffused throughout the informal hierarchy, residing with particular divisional managers and also those consultants who had become skilled at manipulating the internal market to their advantage.

Consultants acquired a significant position within the informal hierarchy if they either led valuable projects, were able to demonstrate that they could maintain revenue generating relationships with clients, or had developed levels of expertise within their discipline, for which there was significant demand internally. One, or any combination of these abilities would place a consultant above others within the informal hierarchy. These consultants combined both expert power (expertise as a resource) in combination with a form of charismatic power (Pfeffer, 1992) which appealed to both clients and other consultants. It was power that was premised on an individual consultant's perception of their own self-importance and confidence, which manifested itself in the individuals' ability to persuade other consultants and perhaps more importantly clients, of their ability to successfully contribute to (or preferably lead) project work.

A power structure existed then at Universal based largely on the capabilities and expertise of individual consultants. Those consultants who are adept at wielding this particular power of resources (a combination of expertise and charisma) were able to command network centrality (Ibarra, 1993) and therefore resided towards the apex of the informal hierarchy. Network centrality generates informally derived power coming from the individuals position in actual patterns of interaction that define the social network within the organisation. These individuals were in a dominant power position premised on their ability to acquire new business and command large proportions of project revenue that contributed to their DRTs. It is important to recognise however, that dominant positions were transient and relatively ephemeral as new clients and new projects, requiring new skills and expertise were acquired. It is also important to recognise that divisional managers from the largest divisions, which by default had to generate the most revenue for Universal also influenced decision making and operational decisions. Thus they also wielded significant power of processes and a degree of power of resources (Lukes, 1974) and vied for commanding positions within the informal hierarchy, occasionally against

consultants who were located within their own division. It needs to be acknowledged however, that this diffuse, fluid power structure had only emerged slowly over time, augmented by the introduction of the performance management system. The power of the internal market for knowledge then significantly shaped power relations throughout the firm by the time of the research.

The lack of formalisation then, in combination with the informal hierarchy enabled powerful individuals, particularly divisional managers to shape project team working in ways that limited the accessible knowledge base, generating 'social closure' around the knowledge (Scarbrough, 1995). This is considered to be a significant barrier to innovation and at Universal it was perceived to be potentially constraining knowledge creation.

This analysis of power, rooted primarily in the functionalist perspective (Dahl, 1957; Bachrach and Baratz, 1962, Pfeffer, 1992) has highlighted the way in which the emergence of a diffuse and transient power structure shaped by an internal market economy for knowledge had potentially begun to constrain processes of knowledge creation at Universal. Adopting a multi-dimensional perspective on power however, highlights the way in which cultural ambiguity or the power of meaning (Lukes, 1974) appeared to ameliorate the tensions and conflict that this power structure potentially generated. A lack of clarity regarding the structure itself and the fluid nature of it meant that the power structure itself was subject to multiple interpretation, thus making issues of power difficult to address. The implications of this will be addressed in Chapter 8.

### **5.3 The role of trust relations in processes of knowledge creation**

The literature on trust between professionals and within self-managed project teams suggests that high trust relations are characterised by altruistic and help-seeking behaviour, demonstrating the existence of affect-based or unconditional trust (McAllister, 1995; Jones & George, 1998). Consultants at Universal were constantly engaged in help-seeking behaviour. The nature of the majority of project work meant that knowledge from a broad

range of scientific areas was often required. However, over the period of the research it became evident that the performance management system had begun to erode the high trust relations that had existed throughout the firm. Market relations rather than trust relations were beginning to permeate the firm, which relied more upon cognitive-based or conditional trust (McAllister, 1995; Jones and George, 1998). Cognitive based or unconditional trust is grounded in an assessment of peer's behaviour being consistent with norms of reciprocity and fairness. Thus at Universal consultants had begun to carefully assess the payback either tangibly in the form of personal revenue or intangibly, in terms of the potential use that could be made of others' knowledge and expertise in the future, before responding to requests for information and knowledge. This potentially limited the knowledge base available to projects, potentially constraining processes of knowledge creation. Individuals could choose to self-censor themselves and not offer their expertise and knowledge if they perceived the potential payback to be insufficient (typically in terms of project revenue). They might also self-censor themselves if they simply had more than enough project work to achieve their PRTs. Self censorship then is considered to be a significant barrier to knowledge creation (Leonard and Sensiper, 1998).

Within divisions, individual consultants were still willing to freely share and integrate their knowledge with others in co-operative and collaborative ways, even on projects they were not formally working on. This altruistic behaviour was evidence of the high trust relations that still existed within divisions. However, inter-divisionally this behaviour was discouraged by divisional managers and only occurred in a limited way across some long serving consultants' personal networks. These informal networks consisted of consultants who could freely turn to one another for expertise and knowledge during project work premised on the confidence that had developed between them over time. These consultants still behaved altruistically then, actively monitoring other consultants' needs within these

personal networks. Numerous comments illustrated the fragmented nature of trust relations within the firm.

“I got into trouble about a year ago – a bunch of people I was looking after weren’t making enough money. Now our revenue is up I can in a benign way say that it doesn’t matter if proportions of project revenue go to other divisions. There is certainly some informal mutual back scratching with people we feel a certain allegiance. I recall that certain people helped me in difficult times and I’m helping them now but it’s sub-optimal from the point of view of the flow of knowledge”.

(Divisional Manager)

Another divisional manager highlighted the way in which her personal network operated

“When we have technical problems we do brainstorming where we bring people in we know from other divisions. These aren’t paid for - we usually bring cakes and biscuits and make it a social occasion”.

Evidently then, trust relations had been shaped by the demands of the performance management system, the power of the internal market for knowledge and over time cognitive or conditional trust was subsuming the high trust relations that had once existed throughout the firm.

Senior members of the firm, more reticent to acknowledge that inter-disciplinary working was diminishing, suggested that relations were highly co-operative. They suggested that the selection process aimed to assess not only candidate’s expertise but also their willingness to share and integrate their knowledge base with others during project work. However, this could only be subjectively perceived and new incumbents were rapidly made aware of a fundamental requirement for divisional, rather than firm-wide knowledge sharing and needs based-monitoring of others.

In the following section the inter-relationships and inter-action between culture, dimensions of power and trust are explored further.

#### **5.4 The interaction and inter-relationships between culture, power and trust**

Whilst consultants at Universal had the potential to be highly mobile, they remained with the firm largely because they perceived themselves to have considerable freedom in the way that they worked and ample resources (including knowledge) to experiment and work with. The analysis has shown that cultural ambiguity importantly served to reinforce these perceptions of autonomy despite encroaching control mechanisms. In addition, the firm had an excellent reputation within the scientific community, such that consultants at Universal were considered to be part of the scientific 'elite'. This perception was reinforced internally, fostering a strong organisational identity by the approach taken to selection, which was characterised by high rejection rates. Thus organisational identity, fostered by a strong corporate culture premised on elitism served to reinforce consultants' professional identity as 'scientists'. The culture was thus both strong and ambiguous. This analysis departs somewhat from the majority of existing literature on organisational culture which asserts that for cultures to be strong they need to be characterised by consensus and clarity, illustrative of the integration perspective (Peters and Waterman, 1982; Martin and Meyerson, 1988; Martin, 1992; Kunda, 1992). At Universal the culture was perceived to be strong in terms of what was considered to be a unique way of organising, characterised by extremely low levels of formalisation that paradoxically everyone acknowledged actually lacked clarity and consensus. The implications of this analysis for sustaining processes of knowledge creation will be discussed in Chapter 8.

Multiple interpretations of reality, characteristic of the organisational ambiguity also importantly reduced some of the potential tensions generated by the informal power structure that existed within what was supposedly an egalitarian environment. This power structure had, according to some interpretations, begun to not only constrain interdisciplinary working but also erode firm-wide high trust relations. Divisional managers were found to use their power to hoard project work and discourage consultants from

freely sharing their knowledge with others. Ultimately these behaviours generated social closure around the knowledge base and self-censorship, both considered to be barriers to knowledge creation (Scarbrough, 1995; Leonard and Sensiper, 1998). High trust relations are necessary in this type of environment so that consultants freely share their knowledge with others and actively monitor the knowledge needs of others (McAllister, 1995). These behaviours render knowledge creation potentially more efficient as the time spent on knowledge search and acquisition is potentially reduced. The power positions of divisional managers were then potentially constraining processes of knowledge creation.

This analysis then highlights the complex inter-play between culture, trust and power which previous literature on knowledge creation and modes of organising more generally in KIFs has not explored. Fundamentally then power of resources and processes (Lukes, 1974) vested in divisional managers served to potentially constrain processes of knowledge creation. However, power of meaning in terms of an ambiguous culture importantly served to obscure power and control, reinforcing perceptions of autonomy. Autonomy is fundamental to process of knowledge creation, thus it can be assumed then that organisational ambiguity contributed significantly to sustaining processes of knowledge creation. The implications of this, together with the major findings from the second case study will be further refined in chapter 8 in order to explain the way in which processes of knowledge creation were sustained over time within the case study firms.

## **Chapter 6 An analysis of the structural conditions that existed over time at Paramount Consulting**

### **Introduction**

In this chapter, as with the previous analysis, the historical development of Paramount Consulting is initially presented. A detailed description of the firm then follows when consideration is given to the selection and management of the workforce, the overall organisational configuration, the availability of organisational resources and the nature of project team working including the organisational routines and processes which supported project work. The chapter concludes with a summary discussion of the potential influence of these structural conditions on processes of knowledge creation. In Chapter 7 consideration is given to the potential influence of cultural and other social conditions on processes of knowledge creation. An analysis of organisational culture, power and trust at Paramount will be developed in this chapter in order to further refine the analysis of the way in which processes of knowledge creation were sustained over time.

### **6.1 The historical development of Paramount Consulting**

Paramount Consulting was founded by two individuals in 1990. The firm aimed to provide strategy and organisational development services to PSFs, initially primarily law firms. One of the original Founders left the firm, for health reasons in 1995 and since then, the firm has been led entirely by the remaining Founder and restructured as a limited company. A new market for consultancy services had appeared in the UK in the PSF sectors as discussed in Chapter 1. Partners within the leading law firms began to appreciate that despite their levels of expertise within their own specialised fields, they knew relatively little about competing and strategy more generally. Several large, US based global consultancies such as Bain and McKinsey offered specific strategy development services to PSFs at this time. However, their prescriptive, 'best practice' approach was highly

directive according to the Founder of Paramount. 30% of the time on an engagement was spent developing a tangible solution based on a statistical market analysis and 70% of the time was spent justifying that solution to the client. Both of the firm's Founders had worked for McKinsey during the eighties and used this approach. They were aware however, that leading UK law firms were not prepared to accept the standardised solutions large generalist management consultancies offered, which were based on statistical analyses of markets and sectors developed by consultants who generally had no professional legal background. Whilst many leading US based law firms became McKinsey clients, most of the leading law firms in the UK chose not to purchase their services at this time.

The existing Founder then (educated at Cambridge University and Harvard) suggested that Paramount was set up with the intent of expressly rejecting the McKinsey, directive, doctor/ patient (Schein, 1969) model. The firm aimed to provide a service that reversed the proportions of time spent on the two major tasks within a strategic assignment. The approach he advocated then was to spend 70% of the time developing a tangible strategic solution with the client, based primarily on qualitative information and knowledge (rather than hard statistical analyses of markets and sectors) and the remaining 30% of the assignment focusing on the feasibility and implementation of the jointly developed solution. The emphasis was on a processual approach to strategy development that relied upon expert knowledge of PSF markets as well as knowledge rooted in the legal and financial disciplines. This approach appealed to many of the leading UK law firms at this time and they subsequently engaged the services of Paramount Consulting

In the early 1990s it was only the largest law firms in the UK that were actively considered using consultants. Arguably they were most affected by the recession. Although many firms were experiencing financial difficulties, senior partners within these firms recognised a need for consultancy services and expert advice. As one consultant stated

“In the early 80s they (law firms) could make money without even thinking about it- the work was just pouring through the door. Now working in a very saturated market they are dealing with sophisticated clients, commercial clients who are very demanding, very disloyal compared to the way they used to be. So there are all sorts of competitive pressures which are making them realise that they are not managers they are lawyers and they need assistance”.

This was a sector which, whilst significant in terms of potential revenue generation, was a late purchaser of consultancy services. Paramount, whilst a very small consultancy firm was ideally placed at this time, by virtue of their particular consultancy approach, to offer a service that leading law firms in the UK were willing to purchase.

The firm remained small for 5 years, employing two other junior consultants and two support staff. Following the departure of one of the original Founders, the remaining Founder decided to expand and develop the firm. Two highly educated and experienced people were brought in during 1995 and the firm has continued to grow since then. At the time of the research (1998), there were 9 consultants (including the Founder), 2 research staff, 1 Head of Production, 1 accountant (part-time), and 5 support staff (including a Chauffeur) working at Paramount. The majority of consultants had a professional legal background and/ or were qualified to PhD level across a variety of disciplines including social and political sciences, and marketing. Three of the four support staff had Masters degrees and the junior researcher had a double First from Oxford.

The client base also expanded over time to include leading European and US based law firms, 15 law firms from the UK top 50, several leading Quantity Surveyor firms, several medium sized accountancy firms and in-house legal departments of large corporations. In addition, in 1998 Paramount began to provide consultancy services to senior partners within two of the world’s largest consultancy firms. In eight years then the firm had grown slowly but steadily and has been successful in terms of expanding its markets, and increasing turnover and profits. Whilst Paramount chose to remain focused on strategy development, considerable effort was placed in the development of innovative, one-off

solutions for clients. The firm highlighted in its PR material, its unique processual consultancy approach, described as ‘highly creative in terms of techniques and implementation ideas – innovative in their application’ and claimed to be generally both ‘provocative and unorthodox’. Evidently then Paramount was focused on creativity and innovation and had managed to sustain processes of knowledge creation over time. In the following sections, organisational attributes and inherent aspects of project working are discussed in order to consider their influence on processes of knowledge creation.

## **6.2. The profile of the workforce**

Between 1990 and 1995, the firm remained very small. Of the two junior consultants and two support staff who worked in the firm at that time, two remained at the time of the research and one consultant left only weeks before the research began. One of the original junior consultants had become a ‘senior’ consultant within the firm by the time of the research and the other original member of the firm had progressed from support, to become a junior consultant at the time of the research. The firm grew steadily but not rapidly from 1995 and notably all of these consultants had remained with the firm.

The Founder suggested that he had adopted a deliberate strategy with regard to developing the workforce profile. Initially the aim was to recruit people who whilst intelligent, knew very little about strategy or the legal sector. The aim was to develop and shape these individuals, the ‘Paramount’ way. This involved ‘shadowing’ the Founder much of the time – a form of ‘on-the job’ training. However, when the Founder’s partner left he took the decision to expand and immediately recruited two extremely highly educated and experienced individuals. The first was the Managing Partner of the largest law firm in the UK who evidently had considerable expertise regarding the legal market both in and outside of the UK. The second was the European Marketing Director for one of the world’s largest consultancy firms, who also had a PhD in Marketing. The idea here then was to introduce individuals who could immediately contribute actively to the development of the

firm. Whilst it may seem unlikely that two such senior people would want to join such a small firm, the firm did have an extremely high reputation in the PSF sector generally. Interestingly, both individuals were looking to change their focus at this point in time. The legal expert believed he had reached the top of his profession and decided to

“look around for something else to do. I had a reasonable amount of money but didn’t want to go fishing, so I came to work here and for me it’s very much a second career. I don’t work full time, I work more hours than most people do still but I take long holidays as a present to myself and my family”.

The marketing expert also discussed his reasons for leaving his previous position as early retirement and wanting to return to consultancy work. He actively considered offers from five consultancy firms but chose Paramount because of its focus on the PSF sector.

Since 1995 a small formal research group was created, four members of support staff and four more consultants joined the firm. All of the consultants had significant academic qualifications. Whilst three also had legal backgrounds, the most recent recruits have come from large consultancy firms - McKinsey and Roland Berger. All of the support staff had degrees. The Founder described the firm at the time of the research as

“a funny little bunch of clever people doing interesting things”.

The Founder recognised when the firm was small some of the problems associated with the cultural homogeneity he was perpetuating within the firm at that time. He stated

“We were becoming too cosy, all a bit alike, very comfortable with each other, we didn’t challenge each other enough. X was becoming a carbon copy of me and Y had started to adopt my mannerisms”.

He recognised then that cultural homogeneity could constrain processes of knowledge creation. He believed that fundamentally anyone joining the firm

“needed to believe in the same things that we did but have some other defining characteristics”.

He actively sought then from 1995 to introduce significant diversity into the firm, which he achieved. A member of the support staff described the diversity within the firm in the following way

“One thing about this firm’s intentions, one of the positive aspects is that they are all fairly strange, none of us are kind of straight down the line people. X comes across as one thing but there are other sides to him and Y is an interesting fellow with his left wing views, you see him fighting all the time. When Z first came to be interviewed, all the support staff said ‘!?! Not going to work for him’ but there are all sorts of interesting things about Z which are much more positive than we first believed”.

It is evident that at the time of the research, the Founder had managed to achieve a balance between a degree of cultural homogeneity (people with the same core values) and significant diversity in terms of expertise, knowledge and skills. Interestingly, some individuals had joined the firm, specifically for a second career and considered themselves to be semi-retired. In addition almost everyone working in the firm, including support staff had a high academic profile which served as an illustration of an expert workforce.

Individuals were not expected to conform strictly in terms of their academic and professional profile but the criteria for selection included evidence of significant academic attainment. In the first 5 years of the firms’ development, the firm remained small and diversity was not sought. However in the three years leading to the research period, conscious efforts were made by the Founder to introduce diversity into the organisation, with regard to knowledge, skills and aspirations, premised on an expert base. Diversity is considered to be a crucial organisational aspect in organisations focused on knowledge creation (Nonaka, 1994; Spender, 1996, Leonard & Sensiper, 1998)). Spender (1998) suggests however that introducing diversity is in itself not enough, diversity has to be managed. The way in which this diversity was managed is considered specifically in section 6.5. In the following section the way in which this diverse workforce was recruited and selected is considered.

### **6.3 The recruitment and selection process**

Prior to 1995, everyone who had been employed at Paramount in that time had been selected primarily by the Founder. He stated that when employing support and research

staff, he always used a recruitment agency as the first step in the process, providing them with a person profile and broad definition of the work they would be required to do.

Support staff were expected to have at least a first degree, to be mature, flexible and have previous administrative experience. He then interviewed candidates and made instant decisions. He personally had also recruited and selected the two highly experienced consultants who were employed in 1995. This approach to recruitment and selection had changed however, as the firm grew and developed a reputation in its market.

At the time of the research, a senior consultant stated that on average they received at least one letter or phone call each week from consultants keen to join the firm. Two consultants supported this by stating that they had actually approached the firm, rather than responding to any recruitment initiative. In addition, at the beginning of 1998, the firm had decided to advertise through a recruitment agency for a consultant

“explicitly to see who was out there, who didn’t know us, who would be interesting”.

The advertisement generated 280 applicants and the firm interviewed around 12 candidates. This resulted in the appointment of a relatively young but highly educated and experienced multi-lingual consultant.

The term ‘firm’ is used here as symbolic of the approach taken to selection. The approach taken to interviewing candidates since 1995 was such that candidates were interviewed formally or informally by almost everybody within the firm including support staff. For example, one consultant stated that she had been asked to attend five interviews. She stated

“I don’t know anybody who hasn’t gone through multiple interviews. Support staff don’t go through such a rigorous process but they are interviewed by a number of people on different occasions”.

Two other consultants stated that they too had been involved in multiple interviews that had included members of support staff. The whole selection process was however very fast, typically around 4-6 weeks. It was suggested that the reason there were so many interviews was to ensure that candidates were made aware of the highly informal way of

working within the firm and to ensure that candidates were prepared to work in a highly, non-directive consultancy style. A consultant stated

“Our style is very relaxed, we want to empathise with the client. Lawyers are frankly insecure and when you go in to talk about something which they own and manage and work within it’s important that you show to them that you understand the issues that they are facing. When you first join the firm you are walked through what we are all about here, this is how we work, and indeed the reason why we have so many interviews is for them to get some understanding about how they feel they would fit into that”.

The Founder also stated

“We generally get a lot of people writing or telephoning us but at the end of the day, even from the tone of a letter you can tell- there is only going to be a few that are going to match us and our profile. I’m not an intellectual snob, I just want to work with people with good minds. I get bored very easily that is why I am naturally attracted to people with good minds. If you think of the sort of people we are working with, lawyers for example, you have to have people with minds that match theirs”.

This approach then highlights the way in which all candidates were expected to have achieved significant professional and academic attainment. Only then might they be considered for interview. The interview process was dominated by instantaneous, highly subjective judgements about candidates. The Founder suggests that only experts were capable of judging the qualities of other experts and experts were needed to match the expertise of the clients.

The recruitment and selection process then could be considered rigorous in some ways in terms of the number of interviews and people involved and had over time proven to be a valid, if retention rates are used as a measure of validity. This supports Lowendal (1997) in her emphasis on the importance of valid approaches to recruitment and selection in this type of firm. The process was characterised by informality and subjectivity. No-one in the firm was experienced in interviewing and questioning appeared to focus on social fit in

terms of subjective assessments of the candidates ability to integrate well into a highly informal, organisational environment and adopt a non-directive approach to consulting. It was suggested that support staff were involved in the interview process because there was a need to work very closely in a co-ordinated manner with consultants during project work (see section 6.5.1). It was however, effectively the Founder who decided whether candidates should proceed to further interviews and subsequently be offered a position with the firm. Whilst there was considerable involvement of organisational members in the interview process, individuals' perception of candidates were generally only communicated to the Founder for his consideration. Little effort was put into sharing perceptions and knowledge about candidates across the firm. There was also no evidence to suggest that the views of support staff were seriously considered in this process. Typically they were involved in final interviews, when in practice the candidate was already likely to be offered a position with the firm. Thus support staff were involved but did not influence selection decisions. This highlights a fundamental inconsistency about the supposedly 'inclusive' approach taken to recruitment and selection. The reasons why expert consultants chose to remain with the firm can be explored further by considering other attributes of the organisational environment.

In the following section, the configuration is considered in order to establish to what extent the firm resembled an operating adhocracy (Mintzberg, 1983) considered to facilitate processes of knowledge creation.

#### **6.4 The organisational configuration**

At the time of the research only the Founder had equity shares in the firm. Whilst then he owned and led the firm, significant emphasis was placed by the Founder on the lack of hierarchy which was considered to be representative of a democratic and egalitarian organisational environment. This view was also supported by a number of consultants who emphasised that official titles such as junior consultant, senior consultant were not applied

and job descriptions did not exist. Consultants did tend however to be referred to as 'junior' or 'senior' consultants by support staff and researchers. Their assessment was made based on their perception of consultants' expertise and experience. Notably all support staff identified the same hierarchical ordering of consultants. This again, in a similar way to Universal, highlights the way in which senior organisational members attempted to de-emphasise hierarchy but an informal hierarchy did exist.

The Founder had a dedicated PA, responsible only for his work and travel arrangements. This was not however considered to be indicative of his hierarchical position within the firm, but simply a pragmatic necessity on the basis that he was rarely actually in the office. (The manner in which the Founder and his PA worked is considered in section 6.5).

Significantly none of the more junior consultants were formally allocated a PA. This caused some problems during project working securing administrative support.

Importantly, consultant's perceptions of the overall structure did vary. In broad terms consultants considered the firm to be flat. However, some in a similar way to the support staff chose to acknowledge relative seniority based on expertise and experience. For example, a senior consultant stated

"We've got very few junior people, we are talking largely a top heavy pyramid, a reverse pyramid".

Another consultant suggested

"It is a very flat environment and it's based on experience. For example, my speciality is working with barristers and I have more experience of that than anybody else, yet I'm the second youngest consultant here. That is not an inhibitor however, stopping me from doing high level strategic work in this area. I am therefore the sector head for this area. There are other sector heads who are also driving initiatives based on their experience".

Other consultants, most of whom were 'senior', perceived the firm to be flat.

Interpretations of the structure then, depended paradoxically on the individual's position within the informal hierarchy and highlighted the ambiguity that surrounded organisational structure.

Support staff perceived the lack of structure as problematic. Nobody had a job description and this generated confusion as regards roles and responsibilities. One PA stated

“I think it could just be more smooth, it’s just sort of foundations, somebody being responsible for stationary for example”.

A researcher commented

“We don’t have job descriptions, its pretty much feeling your way as you go and sometimes you just have to say I’m working for somebody else- what is the hierarchy here?”

Another stated

“Before we moved to the new offices my desk happened to be opposite the entrance, and as it was decreed that I am not anybody’s PA. When we moved my desk was placed there again which is a stupid idea because I work closely with all of the PAs who happen now to be miles away from me. Since X left I’ve been doing the billing and the files for that are also miles away. I’m going to try to swap desks with Y – that would mean she was closer to Z who is the new MD or whatever he likes to call himself”.

These statements were not only indicative of the haphazard, informal approach to organising but also highlighted individuals’ perception of a hierarchical ordering. The structure of the firm then was subject to multiple interpretation. Some individuals including consultants, chose to acknowledge that a hierarchical structure existed, others chose not to. In the main however, efforts were made to de-emphasise hierarchy. Everyone however, did acknowledge the dominant leadership position of the Founder in the organisation and the significance of this is addressed in Chapter 7.

#### **6.4.1 Formalisation within the firm**

##### **(i) Hours of work and holidays**

There were generally low levels of formalisation in the firm. Over time, conscious efforts had been directed towards avoiding the introduction of bureaucratic procedures and few formal, codified systems existed. There had never been specified hours of work and

holiday entitlements varied. Consultants spent on average two to three days of the week out of the office working on client assignments and would appear in the office intermittently. They were however expected to work at least 40 hours each week. This figure was the basis for the time recording system (see section 6.4.2). Most consultants however, suggested that when the time taken travelling to and from clients was taken into consideration, they generally worked far longer hours than this. Support staff had no concept of formalised hours of work. They often had to work late to finish a piece of work urgently required by a consultant and would then, if they chose to do so adjust their hours accordingly.

Both consultants and support staff were free to take holiday whenever they chose and these varied considerably. On a number of occasions, consultants and support staff took holidays that extended over 4 week periods. In addition, one senior consultant took three months holiday every year. The Founder himself had not taken any holiday for four years at the time of the research. The general trend then was to take extended holidays that often had a considerable impact on organising within the firm, reliant on so few people. However the approach adopted was considered to be indicative of the highly informal organisational environment. Everyone was expected to manage themselves to a large extent both within and outside of project working. If an individual chose to take a long holiday then it was expected that they would arrange their workload accordingly. Self-management is a fundamental characteristic of the 'adhocracy' (Mintzberg, 1983) and this was illustrative of the way in which everyone worked at Paramount

#### (ii) Training and development

Support staff and consultants alike, stated that they were responsible for identifying their own training needs and organising any training that they considered to be relevant or necessary. If external training was required, the Founder would make available resources. Less experienced consultants were expected to 'shadow' more experienced consultants on

assignments wherever possible. Whilst resources for external training would be made available to consultants, it was expected that most training would occur internally during project working. In addition, when consultants and researchers first joined the firm, induction consisted of reading an internal library of over 100 books, all of the major client/project documentation, and all the firms' bulletins on particular issues (most of which had been written by the Founder). This was a very time consuming process and as new consultants began almost immediately working on client assignments, this exercise would generally take approximately 12 months to complete.

### (iii) Performance Management

To a certain extent, individuals were also expected to manage their own performance.

Everyone negotiated a starting salary directly with the Founder and significant pay differentials existed within the firm that were made transparent. Salaries for consultants ranged from below thirty thousand pounds to over one hundred thousand pounds. These pay differentials matched the informal hierarchical structuring. Everyone however (including support staff) was provided with the same fringe benefits that were considered generous, including private health insurance and pension arrangements.

Theoretically, individual performance was reviewed every 6 months and salary increases were negotiated annually between the individual and the Founder. In practice however, this did not occur. Only support staff and junior consultants had a formal performance review and these only occurred when they could convince or persuade the Founder of their need for some feedback. The Founder generally involved another senior consultant in these reviews. During a performance review, the focus would be on individual assessment of performance, identification of areas of weakness and joint determination of future courses of action. This approach was considered to be appropriate by consultants but a cause for concern by support staff. For example, one PA stated

“They never mention any positive things but if you are under-performing they will tell you. Unless you are really performing well they never give you any praise. I know that if you don’t perform well and quickly you are out of this firm”.

This PA mentioned that prior to the research period, several support staff had joined and left the firm within a matter of weeks, generally not by choice. This indicated that there were some unarticulated expectations by the Founder, regarding the way in which support staff should work and inconsistencies surrounding the way in which support staff and consultants’ performance was managed.

Consultants perceived performance reviews as constructive and supportive although they did acknowledge that it was the responsibility of the individual and not the Founder to instigate a performance review. One consultant stated

“I spent the first 6 months here actively, shadowing. Only after that time was I expected to bill my hours. Following my 6 monthly review and given my legal background, I then had a clear idea about the sort of projects I should be working on”.

Another stated

“I had my six monthly review where I basically said what I would like and I tried to understand what their expectations of me were. We then pretty much mapped out the year ahead, as to what I wanted to do and how they would support me in doing that. It wasn’t a formal appraisal where things are written down but on the understanding that it would happen”.

One of the senior consultants involved in performance reviews stated

“In terms of development we have got laid out in broad terms what we would expect people to be achieving over the next three to four years. There is no formal review, no forms or anything procedurally like that. We talk about where they see themselves in a year’s time and what they would need to do to do that. People plot their own career paths here”

The approach taken to performance reviews was also then characteristic of self-management and low formalisation, highlighting the autonomy afforded to individuals and providing further evidence that the firm was configured in a way that the literature

suggests facilitates knowledge creation (Nonaka, 1994; Mintzberg, 1983; Lowendahl, 1997)

#### **6.4.2 The Performance Management System**

Fundamentally however, the Founder did monitor consultant's performance based primarily on information from the internal time recording and invoicing systems. Each month, individual and summary reports were produced which highlighted the way in which consultants had allocated their time, internally. This meant that depending on the available hours in a month, all other time was assumed to be chargeable to clients. A comparison was made between the time recording system and the invoicing system to estimate whether this occurred. The Founder expected a utilisation rate of 60% for all consultants once they had been with the firm for 6 months. This rate was considered to be a reasonable expectation by everyone, allowing sufficient time for individuals to work on specific initiatives outside of project work (see section 6.5.5). Consultants could allocate internal hours to 8 categories of activity

- Firm wide management and administration
- Personal administration
- Marketing
- Research and development
- Training
- Shadowing
- Travel
- Holidays

Notably, during the period of the research, very few consultants were operating at 60% utilisation consistently over time. The Founder stated

“I don't make a song or dance about them (the figures) but if I see someone with a problem I will go and talk to them and they could tell other people but no-one need know. I do it very gently. Also if I

see specific initiatives falling away I will go and discuss this with people. Performance is managed but not in a way you would expect. As for performance reviews I'm conscious of the time it should be done but we don't have people queuing up for them. It's a relaxed two way process".

This highlights the way in which the inherent unpredictability of most of the major work activity was acknowledged by the Founder. Performance management whilst highly informal was monitored in an attempt to manage the inherent tension that existed between efficiency and uncertainty, a fundamental characteristic of knowledge creation. In addition, there were jointly shared expectations regarding acceptable levels of performance that were premised on consultant's perceptions of themselves as professionals. Under performing individuals would be expected to improve. It was suggested that by adopting the same approach for everyone, democratic and egalitarian aspects of the organisational environment were highlighted. However, in reality the same approach was not used for everyone. Whilst, a highly non-directive, participatory approach was used to assess performance support staff however, found the process completely inappropriate with regard to the nature of their work.

The Founder also clearly held unarticulated expectations regarding their performance, which if not met led to a swift dismissal. Somewhat inconsistently senior consultants were not subject to formal performance reviews (although their utilisation rate was monitored) and under-performing consultants were tolerated by the Founder, highlighting fundamental contradictions within the organisational environment. There were other examples of purportedly participative decision making occurring within the firm which were considered by some organisational members to also be characteristic of the democratic environment. These are considered next.

#### **6.4.3 Participatory decision making**

Typical within a consultancy firm, the inherently fragmented nature of the labour process (Alvesson, 1995) meant that there were very few forums or events that involved everyone

within the firm. A monthly Management Meeting occurred however at the end of each month which everyone was expected to attend. This term was used to indicate that everyone within the firm was responsible for managing the firm. The format for this meeting never changed and all issues pertaining to the management and the future of the firm were made transparent and openly discussed. The current financial position (in the form of a full monthly balance sheet), potential and new project work, people issues (potential new recruits, my research) were all considered and debated here. Whilst the Founder tended to lead discussions, everyone was free to speak and debate matters. Noticeably however, support staff contributed very little to these meetings. Whilst transparency and openness were evident, support staff appeared not to actively participate in decision making at these meetings. These meetings were organised informally in terms of timing and style and sufficient time was allowed for 'Any Other Business' when both substantive and trivial issues would be raised.

The firm's AGM was also illustrative of participatory decision making. The meeting was held over one weekend in an exclusive country hotel. Here, the Founder put forward three medium term strategic options for the firm. All of the information and data used to produce these strategic options had been jointly derived and analysed by the Founder and two other senior consultants. Each option resulted in different levels of growth and profitability and required different levels of project activity and resources. Over the course of one day, the Founder argued strongly for the implementation of the most ambitious approach. However, significantly by the end of the weekend, and after considerable debate, the firm as a whole agreed upon the second, less ambitious option. It was agreed to monitor firm wide performance against this plan in the forthcoming year. When decisions needed to be taken then that would have considerable impact on everyone within the firm a participatory, inclusive approach was adopted. This highlighted the extent to which the firm relied upon co-ordinated, inter-dependent action across the firm such that everyone's views (including

support staff) were seriously taken into account. There were then some instances when democratic approaches to decision making occurred, particular when major decisions needed to be taken. However, somewhat inconsistently, often support staff were not involved in operational, day-to-day decision making, contradicting espoused notions of democracy.

In this section various aspects of the firms configuration have been considered and in some respects the firm could be characterised as an operating adhocracy (Mintzberg, 1983). The way in which individuals organised around project working is specifically considered in the following section. However, suffice to state here, the firm was inherently project team based and all individuals were expected to exercise a significant degree of self-management. Efforts were made to de-emphasise formal hierarchy, there were generally low levels of formalisation and there was some evidence of participatory decision making. As few formal systems existed and individuals did not have job descriptions there was only loose coupling between actions and outcomes generally, another fundamental characteristic of an adhocracy. Importantly, under-performing consultants appeared to be tolerated. During the period of the research, extending almost over one year, most consultants were only achieving 50% utilisation rates although they were expected to achieve 60%. This is perhaps indicative of the inherent uncertainty characteristic of knowledge creation processes such that for example, the time required to complete projects may change and client's requirements may change. The firm had grown in terms of turnover and to a more limited extent, profitability in the preceding three years and the Founder appeared to be satisfied with the firms' financial performance. As everyone was kept fully informed of the firm's financial position on a monthly basis, there was an expectation that individuals would actively attempt to shape their behaviour according to performance requirements. Issues around expectations and self-management are addressed more fully in Chapter 7.

Conversely, it was also apparent that an informal hierarchy did exist, together with mechanisms that implied a degree of formal control. In addition participatory decision making was quite limited (noticeably around major issues). There was then a reliance on rhetorical discourse within the firm with regard to the organisational configuration while in reality the configuration could be positioned somewhere on a continuum between an operating adhocracy and a professional bureaucracy (Mintzberg, 1983).

Some members of support staff and several consultants whilst acknowledging the advantages of working in such an informal environment suggested that the firm tended to be run inefficiently in terms of administration. However, consultants considered the overall configuration to be a major strength of the firm. Several consultants suggested that the informal, democratic mode of organising had initially attracted them to the firm, differentiating Paramount from other consultancies. It is emphasised in the literature that knowledge workers require and demand high levels of autonomy (Starbuck, 1992; Alvesson, 1995; Scarbrough, 1996, 1999). The way in which Paramount was configured was perceived to provide a highly autonomous yet participatory environment in which consultants could work. This environment appeared to have promoted good retention rates. This is significant if processes of knowledge creation are to be sustained over time. These processes rely on the integration of both individual and social knowledge (Spender, 1996). For social knowledge to develop however, particularly collective (social/implicit), there needs to be a degree of stability over time regarding the social constitution of the organisation. This can only be achieved when retention rates are high and the workforce remains relatively stable. Whilst then there were some inefficiencies highlighted within the organisation, the configuration could be considered to have facilitated processes of knowledge creation, by promoting the retention of an expert, diverse workforce.

In the following section, the way in which project team working was organised is discussed and consideration is also given to the organising that occurred in support of

processes of knowledge creation more generally. This analysis will be used to more fully explore the way in which the diverse workforce was managed and how processes of knowledge creation occurred.

### **6.5 Project team working and processes of knowledge creation**

The majority of client project work required teams of three consultants. The lead consultant was not formally assigned. Representative of the self-management within the firm, the consultant who had the closest relationship with the client or the most experience with specific work types (referred to as sector heads) would assume that role. Typically then, one other experienced and another more junior consultant would work with the lead consultant on the client project. This approach meant that theoretically, a relatively junior consultant (who could be a sector head) could lead a project. In practice however, where this occurred, the Founder would inevitably become involved in the project and informally assume the lead role. Thus whilst on some project documentation a junior consultant would be identified as the lead consultant, in practice the Founder would have considerable influence over specific project deadlines and often liaise directly and regularly with the client. Junior consultants were not in a position to question the Founder's approach. Consultants were allocated to teams according to their workload and their experience. Conscious efforts were made not to use the same consultants, on similar projects over time. A consultant stated

“What we try and do is not look purely at workload to determine who should be on the team but also at what people are genuinely interested in, what are gaps in expertise. In my first four months I did more business planning than anyone else here. Now there is a conscious decision to make sure others get a chance to do that. We never think about supervisor roles, things like that. The lead consultant probably has most to do with the client but internally within teams, roles are very informally assigned”.

Another consultant stated however

“ My learning curve is flattening out now and intuition is becoming more important on projects. I think the only person I can learn from now is the Founder that is why I only work with him”.

A recently recruited consultant stated

“I asked at the interview how projects were delegated or assigned and I didn't really get a satisfactory answer because I don't think there is one, they just try to give you lots of exposure and experience”.

The Founder was considered to be the most active consultant within the firm although his style of working relied upon considerable support from support staff and other consultants because he spent the majority of his time out of the office. His PA stated that in any one month, she would generally only have direct face-to-face contact with him for perhaps 10 minutes! He organised his work in such a way that he would be in contact with his PA and consultants throughout the day by phone. At the end of the day his PA would fax to him ‘the end of day notes’. These notes identified all the issues that needed his urgent attention. These included requests for information and advice from consultants, in addition to more pragmatic considerations concerning his diary and travel arrangements. The following day she would arrive in the office at least half an hour before anyone else, in order to work through the Founder's lengthy faxed reply. The fax would have been sent by him at some point the previous evening from wherever he happened to be working in the world. This routine was the general mode of communication with the Founder and whilst it was acknowledged that it was somewhat novel, it was considered to work well.

Consultants were also free to fax or telephone the Founder at any time of the day or night, including weekends. Everyone within the firm was aware of the Founders' location at any particular point in time (see section 6.5.2) and when he was scheduled to return to the offices. As he was generally involved in a number of client project assignments with other consultants at any given time, his physical presence was much in demand. When he was in the offices he would find time to speak with anyone who needed his attention. Face-to face

communication with other consultants, for prolonged periods during project work however, rarely occurred.

The way in which the Founder worked was not typical within the firm. Consultants working on client projects would generally work closely together, relying primarily on face-to-face communication at either the client's location or in Paramount offices.

Consultants generally worked on a number of projects at any given time and junior consultants played an active role in interviews and analysis. In addition, junior consultants would support more senior consultants on projects they were not formally assigned to.

When 'shadowing' they were expected to be learning – acquiring tacit knowledge, rather than actively contributing to project working.

Regardless of the formal project team arrangements, consultants suggested that they could potentially go to anyone within the firm for information and knowledge during project working and referred to this as 'the open door policy'. A consultant stated

"I tend to go to X when thinking about internal evaluations and Y for certain other issues. Some people I use as repositories of knowledge and others I go to bounce ideas off and brainstorm ideas with".

Another consultants stated

"It very much depends on the problem. I sort of intuitively know who to go to for help with particular issues".

Consultants also used their own personal networks external to the firm, to acquire information and knowledge that was relevant to client projects. They were willing to share these networks with others in the firm. Consultants did not have to rigorously account for their time and were willing therefore to contribute sometimes quite significantly, to project work that was not strictly within their current remit of work. Clients were given an approximate flat rate fee for project work based on the estimated number of consultancy hours that would be spent on the assignment. The consultancy hour rate varied across the firm by a multiple of three. This served to highlight the relative seniority of consultants

within the firm. Unless the client actually changed their requirements dramatically during the course of an assignment, fees remained relatively fixed

### **6.5.1 Project work – the process**

Consultants were able to estimate fees quite accurately because project work, whilst inherently unique to the client, followed a predefined, multi-staged process to which consultancy hours could be allocated. A project tool had been developed by the Founder that sequenced a consultancy assignment into 4 distinctive phases.

Phase 1 – Analyse existing position within the firm

- Gather external views
- Gather internal views
- Conduct client base analysis
- Conduct economic analysis
- Conduct organisational review
- Identify competition
- Consider current competitive trends

Phase 2 – Agree current position and key issues

- Present analysis to partners
- Discuss and agree findings

Phase 3 – Agree future market position and implications

- Develop tangible picture of future position, agreement required on:-
  - Position
  - Image
  - Client base
  - Service range
  - Competitive basis
  - Organisational capabilities

#### Phase 4 – Agree critical factors for success

- Relate to existing position
- Develop key action steps
- Obtain agreement of all partners

The resources required for each phase could be fairly accurately estimated based on the size of the client firm and the consultants that would be allocated to the project.

Consultants suggested that whilst the process appeared fairly rigid and standardised, there was considerable latitude with regard to how they conducted the process. Different consultants were known to use very different approaches, when for example conducting an organisational review. A considerable amount of co-ordinated support was also required from researchers and support staff during the entire process.

Researcher involvement was required on projects to provide information on competitors to the client, current competitive sector trends both within and outside of the UK the client's own client base. Researchers stated that their degree of involvement on projects varied considerably.

A researcher stated

“I don't perceive what I do is a classical researchers job, I put an analytical spin on what I produce. I don't just pull out data, I extrapolate. It's very much a two way process with the consultants, very free flowing. I do try to share any interesting sources I come across with others too but I don't write it all down. I've just got a mind that tends to absorb and retain information”.

Another researcher stated

“It's useful when we attend client meetings because we glean for ourselves what is required. It's sometimes quite hard for consultants to translate what they want into hard facts. Sometimes you go off searching for sources whereas actually the consultant themselves know where you should look”.

The first phase of the process generally took about 2 months to complete. Researchers were not formally allocated to projects, they were expected to provide research and analytical skills across all projects as and when required. In addition, a junior consultant

who had, until just prior to the time of the research been a researcher herself, still produced most of the economic analyses of client firms across client projects because she was considered to be an expert in this task.

As information was gathered by consultants and researchers from interviews and observations, it was written up and summarised by support staff or junior consultants. Consultants worked at developing and refining the analysis of this information throughout the first phase as more information was gathered. The synthesis of these findings occurred at the end of this phase and was based on the analysis in conjunction with individual consultants' expertise and knowledge of markets, sectors and future trends, in order to create new knowledge relevant to the specific issues facing the client. Issues would be debated very critically from competing standpoints across the team promoting 'creative abrasion' (Leonard and Sensiper, 1998). During this process a major source of information and knowledge in project work was previous client and project documentation which all existed in hard copy. Considerable effort was made to make explicit all information and knowledge provided by the client or derived during project work and therefore a huge amount of hard copy client and project documentation existed, which consultants used as a major source of information and knowledge on new assignments. All communication between clients and consultants was documented including telephone conversations and copies were always sent to the client. Consultants stated that PSF clients, particularly legal clients expected this significant level of documentation, it was considered to be a professional norm within this sector.

### **6.5.2 Organisational routines and co-ordination mechanisms in support of project work**

Consultant activity throughout the process was co-ordinated via the 'hairdresser's book'. This was the metaphor used to describe the firm's diary. The hairdresser's book was an enormous, hard copy diary in which consultants recorded their expected movements

throughout each day on an hour by hour basis. Each consultant was allocated one column. All entries were made in pencil (as occurs in hairdressers) because arrangements tended to change constantly. Consultants spent a considerable amount of time with clients who were dispersed around and outside of the UK. Multiple interviews would also be conducted with clients' clients and these also needed to be scheduled. One PA had primary responsibility for arranging the interview schedules of consultants. However, anyone was free to amend appointments if arrangements changed (which they frequently did). Consultants were also expected to record any event that would imply that they were not generally available to other consultants. The Founder's diary was also incorporated in this book although his PA controlled what was recorded.

When decisions needed to be made regarding the constitution of new project teams, the hairdresser's book served as an important mechanism for establishing current workloads. On Friday of each week, a schedule would be produced from the diary for the forthcoming week, highlighting any activities considered important to everyone in the firm. Whilst everyone tended to joke about the hairdresser's book given its' relative incongruity in such a 'professional' environment and the fact that it could never be found when it was needed (despite its size), it served as an important co-ordination mechanism across the firm within and external to project working. It was not only possible to physically locate people, in addition it also provided information on the current status of projects, individuals work loads etc. Everyone was expected to maintain their own daily schedules within the diary. Where sections were left blank this implied that a consultant was in the office and generally available.

### **6.5.3 Time Pressures during project work**

Most consultants stated that it was very difficult to manage client expectations regarding deliverables from the first phase of the consultancy process. The first phase took at least 2 months to complete in terms of gathering information and the majority of clients expected

instant feedback. Legal clients in particular were considered to be very demanding and consultants perceived themselves to be under tremendous time pressure to produce their initial analysis. Arguably this initial analysis was one of the most critical aspects of the process because if errors of judgement were made, they could have a considerable impact on strategy development. The amount of information that needed to be gathered here was considerable. For example, in order to develop an analysis of the external view of the client i.e. how Paramount's client was perceived by their own clients, consultants would need to conduct at least 20 interviews with a cross section of the firms' clients, ranging from the client's best clients to those who rarely used the client's services.

In order to conduct an internal organisational review of the client firm, consultants would interview a range of individuals from senior partners to support staff in order to analyse the firm across a number of dimensions including structure, control systems, reward systems etc. Whilst consultants knew what they needed to cover in interviews their approaches varied considerably and this was reflected in project documentation.

Whilst individual consultants worked on different aspects of the initial analysis, the team would work together to produce the report from this first phase. This report would be typically at least 80-90 pages long. A presentation of this analysis would then be given to the senior partners within the client firm. This presentation would generally take 3-4 hours.

It was at this stage in the process that all consultants perceived themselves to be under constant time pressure. Clients expected to see the report within two to three weeks of completion of interviews. The majority of consultants, other than the Founder suggested that it simply was not feasible to expect a thorough and comprehensive analysis and synthesis in this time period. It was acknowledged then that processes of knowledge creation were constrained by time pressures imposed by the client. For example, a consultant stated

“There is always this pressure to produce which generally doesn’t allow sufficient thinking time and it’s thinking time where the brilliant ideas come from”.

Another consultant stated

“We work with so many clients here- I maybe work with 5 different ones and I don’t think we have enough time to develop the analysis. We do it very well but we have so much material we could do more with. I spend 2 to 3 days here working on an analysis whereas at Roland Berger I would probably have spent three weeks. Fortunately we do have some brilliant minds here used to working at this pace”.

Thus whilst emphasis was placed on developing innovative solutions for clients, consultants did recognise that often they had to compromise in terms of the degree of analysis that took place.

The remaining three stages in the process would typically take a further two to three months to complete. Consultants stated that although they followed a standardised approach to the sequencing of the process, individual ways of working tended to produce highly customised reports and presentations that were shaped overall by the constitution of the team. Significantly consultants did not question the need to adopt this standardised approach to the process which had been developed by the Founder. This approach was considered to be valid and necessary if a comprehensive and thorough analysis of the firm was to be developed. The Founder stated

“The distinguishing feature about our process is that we rely on words. However, if you consider our clients then lawyers are probably the brightest and what they want are words. They are very quick to grasp a concept, although it’s dangerous to assume that just because they have worked in the firm for a long time, they actually understand what is going on internally. You cannot assume that just because they have the intellect they are going to find it easy to implement strategic advice”

Significantly then, considerable effort was made to make as much information and knowledge derived from the analysis explicit in the tangible form of a client report. This reflects the influence of legal cultural norms, which are primarily text based, on the way in which knowledge was communicated. Lawyers derive their knowledge from written

transcriptions of previous cases and thus expected to derive other knowledge in the same way, in text based form. These reports and other client documentation were also considered to be valuable sources of information and knowledge in future client project work. Past project documentation was often referred to during current project work. For example, when problems arose during project work, members of the team would ask for help from other consultants. Often consultants would refer to work they had conducted for another client and suggest that the team go back and look at a certain client's files in much the same way as in a legal firm. This is perhaps not surprising given that most consultants working in the firm had some form of legal or other professional service background.

#### 6.5.4 Other project tools

Several other project tools had been developed by the Founder. He suggested that their use was not obligatory, but all consultants were aware of these 'generics' and how to use and apply them on projects. For example in order to consider whether there was alignment between internal and external dimensions of the firm, consultants could use a framework referred to as the 'Doll's House' to structure their analysis. This generic framework is shown below.

I N T E R N A L	Market Position Image	Behaviour Structure Systems Skills	E X T E R N A L
	Core clients Core services Competitive base	Processes Culture Economics	

**Figure 6.1 The Doll's House**

The use of these project tools tended to be fragmented and ad-hoc. Project documentation revealed that these generics were used across some but not all projects in highly idiosyncratic ways. For example, whilst all of the dimensions presented in the Doll's House might be considered by consultants during project work, the actual analytical

approach varied. Some consultants analysed culture in terms of articulation of core values, others chose to focus both on values and manifestations of culture in their analysis. The Founder encouraged consultants to consider ways of refining them based on individuals' experiences with clients. Any refinements to the generic templates would only be incorporated however, if the Founder agreed to amendments.

### **6.5.5 Organising for knowledge creation outside of client project work**

In addition to client project work, consultants were specifically encouraged to refine and develop knowledge on particular issues for particular PSF sectors, related either to strategic development or implementing strategy. Pre-defined project teams existed then outside of client project work, in which consultants worked together creating new knowledge on specific issues related to particular sectors. Table 6.1 highlights the specific issues that were actively being considered by consultants at the time of the research.

<b>Issue</b>	<b>Sector</b>	<b>Project team</b>
Branding (S)	In-house non-legal	JD / MG
Globalisation (S)	In-house legal	GR / PB
Remuneration (IS)	Accountants	FQ / JD
Pricing (S)	Surveyors	GR / MG
Culture change (IS)	Bar	PB / MM
Managing the work process (IS)	Mid-size legal	GR / PB
Positioning(S)	Top tier legal	AH / PB
Competitiveness in PSFs (S)	Europe – legal	AH/ AW/ PB
Performance Management (IS)	Mid size PSFs	AH

**Key : S - strategic development                      IS - implementing strategy**  
**Table 6.1 Special project team working at the time of the research**

The issues under consideration were jointly decided based on consultants' individual perceptions of market trends and requirements. Consultants chose what teams to work within based on their expertise and general enthusiasm for the topic. Teams were expected to organise themselves to innovate and create new knowledge in these areas and time

scales were not set for deliverables. It was expected that any developments in these areas would take the form of a report that would be presented for consideration by the Founder. Once the Founder had agreed in principle with the findings, the knowledge would be shared across the firm in one of two ways. Either a bulletin would be produced by the team and the Founder jointly. This would be made available to all consultants and also mailed to all potentially interested clients. Alternatively or in addition, seminars would be arranged, off site which all consultants and researchers were expected to attend, in order to discuss the project team's findings.

These seminars were fairly formal one-day events and they were not organised as brainstorming sessions. Generally, everyone attending these events would be expected to have read material provided by the project team as background information. There were presentations by members of the project team throughout the day and discussions focused on pragmatic considerations in respect of current project assignments.

Seminars were not considered to be the end of the debate around issues. It was perceived as a forum for sharing ideas and knowledge on particular issues and jointly determining what further research needed to occur and who should be involved in that work. During the period of the research, consultants were spending approximately 10% of their time on research and development. All consultants then were actively involved to a varying extent in client projects and also in project teams focused on research and development on specific issues. The Founder suggested that whilst time scales were not set to develop new and innovative thinking around specific issues, there was an expectation that this would occur. He stated

*‘I’m happy to spend hours helping people here who may be doing something new but they’ve got to make the first step. They’ve got to show willingness and do it. Talking about it is one thing, producing the first draft is another’.*

Whilst then consultants were free to choose what R&D activities they became involved in, they were not afforded the autonomy to decide the content and format of the tangible

outputs derived from these activities. In contradiction to what was considered to be an egalitarian environment, it was the Founder that actually controlled and managed the outputs derived from R&D activities.

#### **6.5.6 Project working – a summary**

Processes of knowledge creation at Paramount then occurred both within and outside of client project work. Consultants worked within predominantly self-organising project teams on client assignments or research and development on specific issues related to PSFs. A number of project tools were available for use in project work. However it was emphasised that their use was not obligatory. Consultants perceived these tools as useful frameworks for gathering information but importantly they did not shape the analysis and synthesis during processes of knowledge creation. The usage of these tools was widespread but idiosyncratic and this was reflected in the project documentation produced. Hence, these project tools did not appear to constrain processes of knowledge creation despite their relatively widespread usage, contrary to claims in the literature (Starbuck, 1992). The project tools at Paramount were used flexibly and consultants were encouraged to refine them during project work.

The influence of time pressures on processes of knowledge creation varied. Within client project working time pressures were a significant constraint. Everyone, other than the Founder suggested that the analyses and recommendations produced for clients could be refined and improved if more time was available. The Founder did not experience the same problems because of the time he devoted to work activities. He was therefore able to accommodate client demands. Significantly, he did not expect similar levels of activity from other consultants. The PSF client base was characterised by intelligent, demanding professionals who by virtue of their partner status were paying for the services of Paramount from personal revenue. PSFs are expected to deliver services to their clients efficiently and to a high, professional standard and they expected the same standards of

efficiency and service from Paramount. Managing client expectations were problematic then for Paramount and time pressures were perceived to constrain processes of knowledge creation during client project work.

Whilst then consultants would experience significant time pressures at certain critical times during a client assignment, more generally there was time for research and development (R&D) activity which did contribute indirectly to processes of knowledge creation occurring within client project work. R&D activities focused on analyses of major sectors and this knowledge would subsequently be used in client projects. Starbuck (1992) suggested that time pressures were an intrinsic aspect of working in KIFs and these constrained processes of knowledge creation as consultants would rely on standardised approaches to problem solving for the sake of expediency. The time pressures that were imposed at Paramount were however generated by the demands of external clients.

Ultimately the influence of time pressures on processes of knowledge creation was ambiguous. It was evident that despite experiencing time constraints and time had to be compressed during project work, consultants did have time to focus on R&D activities more generally which contributed to knowledge creation processes within the firm.

Co-ordination and communication mechanisms did exist at Paramount to facilitate project working. Processes of knowledge creation relied primarily on face-to-face communication in project team working and the 'hairdresser's book' served as an important integrating mechanism within and across project teams. Consultants were generally working on several projects at any one time with varying degrees of involvement. The hairdresser's book then facilitated co-ordination without the explicit need for face-to-face communication between consultants. An important routine then within Paramount was ensuring that all consultant activity was made explicit in the hairdresser's book. Grant (1996b) highlights the importance of informal routines for co-ordinating knowledge and knowledge work. This routine served as an important integrating mechanism across the

firm, highlighting individuals availability and providing visibility of the work they were conducting.

Analysis and synthesis of information and knowledge during project work resulted in the amplification of individuals' knowledge and generated significant amounts of explicit collective or objectified (Spender, 1996) knowledge that was considered particularly useful in future project work.

The way in which project teams were organised both within and outside of client assignments, provided an efficient mechanism for knowledge integration (Grant, 1996b). Conscious efforts were made to provide consultants with work that relied upon them developing their own individual knowledge base. Over time, consultants worked in various capacities on a variety of assignments and specific issues, always in conjunction with other consultants. This approach enlarged individual's knowledge base and shaped the social knowledge base (Spender, 1996) within the firm. In addition, the 'open door policy' provided consultants with the opportunity to share ideas and ask for advice based on others expertise and knowledge, outside of project teams, including the knowledge base of the Founder.

A degree of collective knowledge (Spender, 1996) existed within the firm with regard to the approach taken to gathering information. Significantly however, premised on the diversity of backgrounds and experience of those employed, the approach adopted to processes of knowledge creation within project team working, varied considerably and was promoted within the firm. Different approaches to analysis were encouraged, critical debate was encouraged and no single approach was privileged over others. Junior consultants were exposed to different analytical approaches and over time this shaped and enhanced their individual knowledge bases.

Project teams focused on research and development and seminars where major findings from this work were discussed, highlighted the efforts that were made to extend

organisational capabilities and share knowledge. These activities would inevitably result in the development of a bulletin or thought piece and these were subsequently referred to and used during project work.

## **6.6 Paramount Consulting – A summary**

In this chapter structural conditions have been analysed in relation to existing research and literature that has considered the structural conditions anticipated to facilitate or constrain processes of knowledge creation. The literature suggested that fundamental to processes of knowledge creation was an actively managed, diverse work force (Spender, 1998). At Paramount there did exist a diverse workforce and the way in which project working was organised highlighted the way in which this diversity was managed. Consultants within a short period of time would gain experience of working with everyone within the firm. This would stimulate awareness of individuals' particular areas of expertise across the firm and this facilitated future knowledge search. The informal open door policy also reinforced expectations around knowledge sharing. This approach to the organisation of project work provided consultants with an organisational environment characterised by requisite variety and redundancy which is considered to be important for processes of knowledge creation (Nonaka, 1994). Perpetual involvement in different types of projects, within and outside of client assignments, working with others with different knowledge and expertise in principle served to amplify individual and collective knowledge bases and facilitated the creation of new knowledge. Project working was facilitated by simple, co-ordination mechanisms such as the hairdresser's book, project tools and a stable workforce that had grown slowly but steadily over a three year period.

The stability of the workforce was a reflection of the approach taken to recruitment and selection and the attraction that the organisational environment held for consultants.

Recruitment and selection, whilst highly subjective, appeared to be a valid approach for assessing candidate's social fit. The selection process focused as much on shaping

candidate's perceptions of the working environment, characterised by low levels of formalisation and a significant degree of autonomy, as it did on assessing individual ability to satisfactorily perform the work required. The organisation in many ways was configured in such a way as to provide for significant individual autonomy across the firm considered fundamental for knowledge work (Starbuck, 1992; Alvesson, 1992, 1995). Openness and transparency were an intrinsic aspect of the firm and a degree of participatory decision making occurred. Importantly, the Founder acknowledging that there was a fundamental tension between efficiency and knowledge creation characterised by uncertainty and hence the performance of consultants was only loosely managed. Ample resources were made available to everyone for individual development and other activities more focused on knowledge creation which Amabile (1988) suggests are a significant facilitator of knowledge creation. Whilst client demands imposed time pressures during assignments, time was made available for individuals to focus on research and development and importantly consultants were willing to freely share their knowledge with others even on projects outside of their official remit. The environment conferred considerable freedom on individuals across the firm then and self-management characterised the approach taken to the workforce. Thus the majority of organisational conditions that have been suggested in the literature as facilitating processes of knowledge creation, characteristic of an adhocracy existed at Paramount. There was little evidence of tangible constraints on processes of knowledge creation other than the time pressures imposed by demanding clients.

This analysis highlights the interaction, inter-relationships and ultimately mutually reinforcing influence of a number of structural conditions on processes of knowledge creation. They lend support for much of the existing literature and contribute more fully to an understanding of the conditions experts and professionals perceive to be conducive to their work. These entities in themselves however, provide insufficient explanatory power with regard to the way in which processes of knowledge creation were sustained over time

and a number of inconsistencies and contradictions were highlighted. For example, there were evident inconsistencies in the way the performance of support staff and consultants was managed. The level of involvement of support staff and junior consultants in decision making was limited. However, somewhat paradoxically they were involved in major decisions and often not in day-to-day decision making. Notably, individuals across the firm held different perceptions regarding the organisational configuration. More fundamentally it was apparent that the Founder controlled many important aspects of decision making, promoted the use of particular project tools that he had developed and vetted all output from research and development activities. Thus he operated somewhat autocratically in a loosely structured organisational environment. Why then did consultants not perceive their autonomy to be threatened by his behaviour?

In order to explore these questions in the following chapter the role of cultural and social conditions in processes of knowledge creation are discussed and analysed. The results of the analyses of both case firms will then be considered in Chapter 8 in order to further refine the analysis, leading to conceptual developments to theory that provide explanatory power for the way in which processes of knowledge creation were sustained over time.

## **Chapter 7 An analysis of the cultural and social conditions that existed over time at Paramount**

### **Introduction**

In this chapter the role of cultural and social conditions in processes of knowledge creation will be analysed. Section 7.1 will present an analysis of the organisational culture. As with Chapter 5, this analysis will be structured according to Schein's (1992) framework highlighting the way in which individuals' perceptions of organisational culture are shaped by the symbolic interpretation afforded to cultural embedding and articulation mechanisms. The analysis will draw upon the structural conditions that existed within the firm, presented in Chapter 6. The analysis will also consider evidence in support of multiple perspectives on organisational culture (Martin, 1992). Consideration will also be given to the perspective that offers most explanatory power with regard to individual and group behaviour within the firm. The following sections (7.2 and 7.3) will then consider the nature of intra-organisational relations within the firm, in order to analyse the influence of power and trust on processes of knowledge creation. In section 7.4 the inter-relationship and interplay between cultural and social conditions will be considered in order to interpret their influence in combination, on sustaining processes of knowledge creation.

### **7.1 Organisational Culture**

Paramount Consulting had existed for 8 years at the time of the research and had grown steadily in the previous three years. Despite espoused notions of a democratic approach to organising, the Founder did have influence with regard to the overall configuration, systems and routines that developed within the firm. The way in which his approach shaped individual perception's of the organisational culture at Paramount will be considered in the following sub sections (7.1.1-7.1.3) when the symbolic meanings

afforded to the cultural embedding and articulation mechanisms within the firm are analysed.

### **7.1.1 Perceptions of the primary embedding mechanisms**

(i) What the Founder paid attention to, measured and controlled on a regular basis

It was highlighted in Chapter 6 that individual performance had only ever been loosely managed within the firm. Whilst this approach relied primarily on self-management, support staff found that the lack of performance standards and clearly defined roles perplexing as it was difficult to assess expectations of performance. Somewhat inconsistently, the Founder appeared to have expectations around the performance of support staff, evident by the way in which several had swiftly left the firm. However these were never articulated. Consultants perceived the loosely managed approach positively as whilst expected performance standards were articulated, it reinforced perceptions of individual autonomy.

Generally low levels of formalisation extended to financial management. Turnover and profitability were monitored monthly and these figures were broadcast. Over the period of the research however, profitability never reached target levels and overheads increased significantly in this period. However, the Founder appeared satisfied with the financial situation, suggesting profit satisficing (Simon, 1958) rather than profit maximisation motives shaped leadership behaviour. This is demonstrated in the following

“I decided to grow the business but it was more than any desire just to make more money quite frankly. I could probably make more money just working for myself with one consultant and a secretary but I’m not only interested in making money. I knew the professional service market would grow and I believed that in a larger consultancy trying to develop expertise in this area would get subsumed in politics. It seemed to be more something that specialised consultants could do, given the right set of circumstances”.

This statement is indicative then of profit satisficing behaviour whereby the Founder aimed to make sufficient levels of profits, rather than attempting to maximise profits. In addition

here, he recognised the problems when attempting to be innovative within large consultancies. Many of the barriers to learning identified by Starbuck (1992) highlight the problems with developing expertise within large consultancies. Whilst he had consciously decided to implement a strategy of growth then, he importantly did not assume that growth would lead to significantly higher profits. He recognised that there were significant overheads associated with high levels of self-management. This approach reinforced to consultants the emphasis placed on knowledge creation by the Founder and could be considered to have contributed to promoting norms of behaviour around knowledge sharing and co-operative working. Leadership behaviour in this respect, thus significantly shaped normative behaviour in ways that facilitated processes of knowledge creation highlighting the importance of normative control in KIFs (Kunda, 1992; Alvesson, 1995).

(ii) How the Founder reacted to critical incidents and organisational crisis

The most significant event in the firm's history was the departure of the original partner in 1995. This could have been perceived as highly detrimental to the firm at that time.

However, the remaining Founder compensated for this loss by employing two highly experienced individuals. The partner who left was rarely referred to during the research.

Consultants and support staff suggested that he had lacked the knowledge and expertise of the Founder and was not such a great loss to the firm. As most of these individuals were not working in the firm at the time of his departure, this perception must have been primarily derived from accounts provided by the Founder himself, indicating his ability to shape interpretations of reality. The assertive approach he adopted in this crisis highlighted his ultimate power and control over the major activities within the firm. Significantly, this was never openly discussed but comments were made in interviews such as

“Theoretically it's democratic but he's the face of the business and in control. All other consultants are expected to drop things to help him” (Member of support)

“We're a Founder-centric type of firm” (Senior consultant)

Whilst support staff were fairly forthright regarding his ultimate position power (Pfeffer, 1992) in the firm, consultants tended to frame this in relation to his knowledge and expertise. There was a more pronounced perception by consultants than that the Founder led the firm more by virtue of his knowledge and expertise. His expert power, in terms of the scarce resources he controlled (Lukes, 1974) rather than his position power was emphasised (Pfeffer, 1992). This highlights that not only was the Founder anxious to de-emphasise hierarchy, typical in many KIFs (Alvesson, 1995) but within this context, other experts did the same. To acknowledge the Founder's position power would be an acknowledgement of a significant cultural contradiction in what was considered to be a democratic environment. Instead, consultants chose to de-emphasise hierarchy in order to reinforce perceptions of their own autonomy. This was highlighted in the previous chapter when a consultant referred to the fact that even relatively young consultants were deemed sector heads and could potentially lead projects.

(iii) Observed criteria by which the Founder allocated scarce resources

Whilst the firm had grown modestly, levels of profitability had risen more slowly since 1995 due to the additional overheads associated with the firm's development. Financial resources were limited then premised on the size of the firm, and issues of cash flow generated by late payments by clients. However, the Founder allocated these limited resources in a highly equitable and generous manner. Anyone within the firm who identified an external training need would be provided with the funds to pursue courses or attend conferences. This reinforced both perceptions of the importance placed on individual development in support of processes of knowledge creation and notions of egalitarianism more generally.

Although financial resources were limited, individual and group behaviour was not fundamentally constrained. For example, consultants were not expected to account rigorously for their time, untypical in consultancies (Starbuck, 1992) and were encouraged

to participate in activities external to client assignments. Company-wide events such as the AGM were lavish and extremely costly. Internally efforts were made to ensure that the office environment was made as pleasant as possible. Attention was given then to providing very good physical working conditions, including the services of a Chauffeur. This reinforced individual perception right across the firm of the high status afforded to the firm in its specialised niche markets and reinforced notions of elitism and professionalism. This approach highlights the deliberate approach adopted to fostering a strong corporate identity, typical in many KIFs (Alvesson, 1995; Alvesson, 1998).

(iv) Deliberate role modelling, teaching and coaching

Whilst the Founder was rarely in the offices, he always made himself freely available to anyone within the firm if they required help and advice. All consultants stated that the Founder was the most knowledgeable legal expert and helpful individual within the firm. When consultants were actively working with the Founder in projects he also encouraged those less experienced to 'shadow' him at meetings. He therefore actively encouraged role modelling and teaching which reinforced the expectations and norms around the importance placed on knowledge sharing and integration. For less experienced and skilled consultants these activities were an important way in which to learn from others. Tacit knowledge is intrinsically difficult to communicate but by 'shadowing', consultants were able to observe and interpret information and behaviour that enlarged and amplified their own individual tacit knowledge base. Thus considerable efforts were directed towards socialisation (tacit/tacit) modes of knowledge creation (Nonaka, 1994, 1998).

Consultants could contact the Founder at any time and the emphasis placed on 'the open door' policy was a reflection of the importance placed on the integration and sharing of individual knowledge. Some consultants suggested that it could be frustrating to always be available to others but generally the 'open door' policy was considered to facilitate co-operation and knowledge sharing within and outside of project working.

These behaviours then were indicative of the deliberate approach taken by the Founder to promote normative values around core issues such as knowledge sharing and knowledge integration which consultants did enact (Kunda, 1992).

(v) The observed criteria by which the Founder allocated rewards and status

This process had always been made deliberately transparent within Paramount in so far as everyone was in principal afforded the same status and remuneration packages were known by everyone. In reality it was evident to everyone if not necessarily openly articulated that status was reflected in general levels of remuneration based on expected and actual performance. Hence the terms 'senior' and 'junior' consultant were a reflection of individual's experience and status within the firm which was reflected in their level of remuneration. In addition the disparity in fee rates also reinforced notions of hierarchy and seniority.

As formal role definitions did not exist, it was the responsibility of support staff to convince the Founder that their performance merited reward. There were no other mechanisms for assessing their performance. This significantly shaped co-operative behaviour between support staff and project teams. Support staff would highlight their involvement and co-operation on client assignments and when particular tasks emerged, they were expected to actively negotiate responsibility for them. This highlights the way in which ambiguous expectations of performance can significantly shape behaviour in ways that are in the interests of the firm (Kunda, 1992).

Reward management was again considered to be a reflection of the significant levels of autonomy that consultant's were afforded. Consultants were considered to be under-performing if they failed to achieve 60% utilisation. This figure had been estimated in 1995 by the Founder. Recognising the inherent uncertainty and unpredictability of much of their work however, they would not be sanctioned for under-performance. Instead a joint, participatory approach was taken in order to establish ways of improving utilisation rates.

This would include efforts directed towards the inclusion of individuals on more client assignments and a review of developmental needs. When utilisation rates were achieved or exceeded over the period of a year then consultants were in a position to expect an increase in remuneration.

(vi) Observed criteria by which the Founder recruited, selected and excommunicated organisational members

As discussed in Chapter 6 prior to 1995 there had been little organisational growth and the two Founders made all selection decisions. As the firm grew however from 1995, the nature of the recruitment and selection process changed. Social fit was still considered to be the primary selection criteria but the Founder encouraged everyone's involvement in the selection process as reinforcement of notions of participatory decision making and democracy. Social fit emphasised a need to work co-operatively, and collaboratively in a highly unstructured environment characterised by self-management. Only individuals with exceptional qualifications would be considered for positions within the firm, relative to the broad role they would need to adopt and many potential candidates were rejected prior to interview. The process then remained fundamentally informal and highly subjective but emphasised the inclusion of all organisational members.

Paradoxically however, despite this inclusive approach, the actual degree of involvement and influence in the process served to reinforce notions of status and hierarchy. For example, it was the Founder who initially vetted applications from potential candidates. Hence often even consultants were not aware of who had approached the firm and been rejected by him. Consultants and support staff were only involved in the selection process following his initial consideration. Candidates would initially be interviewed by the Founder and a senior consultant. Candidates would only progress to further interviews with other consultants if there were consensus from this first interview. Subsequent interviews would not include the Founder but he expected consultants to report their assessments of

candidates directly to him. By the time support staff were involved in interviews, the selection decision had effectively been made.

Consultants considered multiple interviews to be an effective method of selection for both support staff and consultants. The approach was perceived to be a reflection of a democratic organisational environment and valid when the dominant mode of organising and work activity relied primarily on integration and co-operation across the whole firm. However in reality actual involvement and influence in the selection process was controlled by the Founder. Hence, it was primarily senior consultants' assessment of social fit that dominated the selection process. This highlights the inherent cultural ambiguity (Martin and Meyerson, 1988; Meyerson, 1991; Martin, 1992) that characterised many of the routines and activities occurring at Paramount. Whilst the approach was supposed to reflect a democratic approach to organising, importantly to support staff and more junior consultants, it reinforced notions of hierarchy and status.

It was the Founder who was responsible for excommunication of organisational members. Historically there had been significant turnover of support staff. Support staff were expected to be highly professional and were expected to familiarise themselves with generally unarticulated organisational routines and any informal systems that existed quickly and effectively. Unless support staff could demonstrate within a matter of weeks that they could actively contribute to the firm, they would be asked to leave. This reinforced the position power (Pfeffer, 1992) of the Founder and again emphasised status in what was supposed to be a democratic environment.

There had historically been considerable problems then in retaining support staff, particularly the Founder's PA. Support staff suggested that low formalisation generated confusion as regards expectations of their roles and responsibilities. References were made by support staff and consultants for the need to be able to work intuitively, particularly during client project work. At an AGM prior to the research commencing, support staff

had decided to focus on the approach to working and communication at Paramount in their presentation. A huge crystal ball had been drawn on an overhead slide and was presented as representational of the preferred method of communication within the firm. Support staff then perceived that they were almost intuitively expected to 'know' what needed to be done and when to do it. Since that time this metaphor had entered general organisational discourse. 'The 'Paramount Crystal Ball' was used to refer to the informal approach to work and communication within the firm.

A PA stated when a management meeting failed to occur

"It's just one of those things. People are expected to know almost telepathically that the meeting won't take place because certain people aren't available. When I queried this they said – 'oh yes it's the Paramount crystal ball at work again – so everyone knew!"

Consultants perceived the intuitive approach to organising within and external to client assignments as one of the major strengths of the firm.

"A lot of assumptions go on here, part of the intuitive element that is undoubtedly perpetuated as part of the culture". (Senior consultant)

"The Bain's or McKinsey's - I think they get glued on too much fact and not enough analysis, real analysis, and we're good at that, good at really digging deeply into organisations based on our experiences and intuition". (Consultant)

Support staff then found the metaphor of the crystal ball useful to describe the informal mode of organising at Paramount. In conjunction with unarticulated expectations of support staff performance, this intuitive approach appeared to encourage support staff to work highly co-operatively. Consultants considered this intuitive approach to organising to be one of the major strengths of the firm facilitating co-ordinated activity. Knowledge creation relies on the integration and synthesis of all four types of knowledge individual, social, tacit and explicit (Spender, 1996), however Spender suggests that collective (social/tacit) knowledge is possibly the most useful. It was evident from the way in which consultants discussed their intuitive approach to work that a significant level of social,

collective knowledge had developed as the firm had grown, shared by consultants that was considered fundamental to knowledge creation within the firm.

The Founder had then introduced cultural mechanisms that were perceived differently in many instances by individuals within the firm. Most consultants perceived many of these mechanisms to be a reflection of the autonomy they were afforded and to be representative of a democratic approach to organising. However, junior consultants whilst acknowledging that they were afforded high levels of autonomy did acknowledge that some organisational routines such as recruitment and selection were not quite as democratic as they first appeared. Expert consultants then found the cultural environment conducive to and congruent with their preferred mode of organising. Individuals were afforded the freedom to work in a relatively autonomous way within a co-operative and transparent environment. Mechanisms also existed that highlighted and reinforced the cultural norms and expectations around co-operative and collaborative action and these did influence and shape normative behaviour within the firm, highlighting a degree of cultural control considered necessary in KIFs (Williams and Ouchi, 1983; Hedberg, 1990; Kunda, 1992; Alvesson, 1995). Support staff however, interpreted these mechanisms to be somewhat ambiguous and equivocal. Whilst they acknowledged the significant autonomy afforded to them, the environment was considered extreme in terms of low formalisation, reliant on individuals knowing instinctively or intuitively those activities that needed to occur. The environment stimulated co-operative behaviour generally between support staff and consultants but reinforced notions of status when paradoxically efforts were directed towards de-emphasising hierarchy, typical in many KIFs (Alvesson, 1995). Despite an emphasis then on democracy and efforts directed towards de-emphasising power relations, the Founder's ultimate authority to shape these mechanisms within what was perceived to be a highly autonomous environment was not questioned. Approaches to performance management, recruitment and selection etc had been developed and were controlled by the

Founder in a highly autocratic manner. There was however, a generally held culturally bound assumption that because the firm was ultimately his responsibility he was therefore at liberty to design organisational processes and routines accordingly. This assumption then ameliorated many of the tensions potentially generated by his autocratic approach to organising within such a loosely structured environment. Core cultural contradictions existed then at Paramount that highlight the inherent tension between autonomy and control within KIFs.

In order to develop this cultural analysis further, consideration is given to in the following section to the secondary articulation mechanisms that existed focusing on the way in which these were consistent or inconsonant with the primary cultural embedding mechanisms.

### **7.1.2 Perceptions of the secondary articulation mechanisms**

#### **(i) Organisational Design and Structure**

As discussed in chapter 6 there were aspects of the organisational design and structure which were representative of an adhocracy (Mintzberg, 1983) such as low levels of formalisation and self-managed project team working. This configuration is considered to reinforce and reflect individual autonomy. Many of the cultural embedding mechanisms discussed in the previous section have however, highlighted the status divisions that existed within the firm between the Founder, senior and junior consultants and support staff such that an informal hierarchy did exist. Thus there were multiple interpretations of reality with regard to organisational design and structure characteristic of the fragmentation perspective (Martin, 1992).

#### **(ii) Organisational systems and procedures**

Very few formal systems and procedures existed. Those that did exist focused on the consultancy process but consultants were free to interpret the process as they saw fit. Both consultants and support staff were expected to intuitively know to a significant extent how to work and organise. Whilst this environment was perceived to be conducive to

consultancy work, affording significant personal autonomy, it had proven to be problematic for support staff. Significantly however, low levels of formalisation did however provide for ambiguous role responsibilities and expectations of performance and this significantly shaped co-operative behaviour across the firm in ways that facilitated knowledge creation. For example, consultants often spent considerable time assisting informally in other projects when problems arose, motivated by the normative expectations that existed (Kunda, 1992). This supports Weick (1975) who suggests that loose coupling between actions and outcomes, provides organisational conditions conducive to innovation. Whilst Schein (1992) suggests that organisational systems and procedures lend structure and predictability to an otherwise vague and ambiguous organisational world, it was evident at Paramount that efforts were directed more towards sustaining or nurturing ambiguity rather than eliminating it. This is a significant departure from existing literature on organisational ambiguity that suggests that ambiguity is highly problematic in organisations (McCaskey, 1982) and generally a temporary or ephemeral state in young start-up companies, prior to culture becoming established (Martin, 1992).

### (iii) Rites and rituals

The AGM served as an important reinforcement rite in terms of corporate identity (Trice & Beyer, 1984). The locations chosen for these events and the relatively formalised format served to perpetuate notions of professionalism and elitism in both consultants and support staff. These events reinforced the professional identity of consultants and the status of the firm more generally. The hotels chosen for these events were extremely sophisticated, lavish and expensive and the associated costs had a significant impact on bottom line profitability. A lengthy agenda consisting of presentations by individuals across the firm constituted the formal activities. Informally during the evenings status divides were not apparent. Conversations tended to be highly informal, personal and relaxed even in the presence of the researcher. There was a generally held perception that everyone should

take advantage of the lavish surroundings, facilities, good food and wine etc. to compensate for the loss of personal free time. The topics of conversation during the evenings then highlighted the degree of organisational transparency that existed across the firm both professionally and personally. Importantly then this event also served as an important integration rite (Trice and Beyer, 1984), encouraging common feelings amongst all organisational members and promoting adherence to a social system based on professionalism. Integration rites are considered to be particularly important within KIFs because of the inherently fragmented nature of work processes (Alvesson, 1995).

As Paramount was a relatively young firm at the time of the research, there was little evidence of renewal rites (Trice and Beyer, 1984) other than the research seminars that were held 4-6 times each year. These seminars reinforced the importance placed on activities focused on knowledge creation. These seminars served as an important organisational development mechanism, increasing the social knowledge base across the firm (Spender, 1996) and stimulating future research on specific issues.

#### (iv) Design of physical space, facades and buildings.

The Founder was responsible for choosing a new office location only minutes away from the existing location during the period of the research. Both office locations were in one of the most prestigious areas of central London. Whilst the firm moved location to accommodate organisational growth, efforts were directed at organising the office space to facilitate communication across the firm. Previously all consultants and support staff had worked together in one open plan office, which facilitated communication generally. The new location was larger and subdivided into offices in which three or four people worked. Support staff were in one open plan office, researchers in another office and consultants were spread across three further offices. Noticeably, the Founder shared his office with a junior consultant and more generally senior consultants were dispersed across the three offices. Research staff were dissatisfied with their office. They had not been afforded any

choice, whereas everyone else had and they were located in the smallest office but needed constant access to considerable amounts of documentation. Their office was therefore very cramped.

The location and design of the office space was considered by consultants and most of the support staff then to be a reflection of the democratic approach to organising within the firm. Significantly however, research staff perceived their office space to reflect their low status within the firm. Thus the design of the physical space served to highlight multiple interpretations of organisational reality (Martin, 1992). Whilst considerable cost savings could have been made by the firm locating anywhere other than the absolute heart of central London, this was simply not considered to be an option by the Founder. Berg and Kreiner (1990) highlight the way in which corporate architecture can be deliberately used as a communicative tool, denoting corporate orientation and shaping individual behaviour. The physical location of the offices at Paramount did promote notions of professionalism and elitism, reinforcing corporate identity and consultants' professional identity.

(v) Stories about important people or events

These tended to focus on the Founder of the firm and highlighted that whilst many aspects of the cultural environment reinforced notions of autonomy and democracy, the firm was intrinsically led by an autocrat. Schein (1992) has highlighted that stories about people cannot be controlled by leaders of firms and as such may transmit different perceptions of culture. This was evident in Kunda's study of Tech (Kunda, 1992) and served to reflect the 'reality' of organisational life within that firm. At Paramount these stories then were one of the few open acknowledgements of the power of the Founder. For example, when a member of support staff recounted the story of the Paramount 'crystal ball' presentation, she emphasised that the Founder had dramatically cut short the presentation, claiming the content was not relevant. The presenter had left the room distressed because of the public humiliation and soon after she left the firm. Other consultants also mentioned that publicly

the Founder would often 'intellectually head butt' individuals if he believed their analyses of issues was not sufficiently rigorous. Whilst then, the Founder actively encouraged individuals to participate in organisational decision making and engage in activities focused on knowledge creation, his lack of tolerance of criticism and public displays of derision and humiliation importantly constrained individual behaviour. These stories then highlighted the contradictions within the culture environment at Paramount. Whilst consultants generally perceived the environment to be democratic and one that afforded them autonomy, there were often occasions when the Founder acted autocratically and attempted to control processes of knowledge creation. This highlights the tensions that exist between autonomy and control within KIFs, the significance of which will be addressed in Chapter 8.

(vi) Formal statements of organisational philosophy

In 1997 the Founder produced a mission statement. This was a lengthy document. The central tenet of this statement was to strive to be innovative. There was an emphasis also on professionalism and maintaining professional standards. Most people within the firm were aware of the mission statement in only vague terms. However, several people commented that the dominant ideology internally was 'The client is king'. No reference to this was made however in the mission statement and yet this phrase was used repeatedly by the Founder throughout the AGM.

Whilst then the Founder had made an attempt to articulate the underlying cultural assumptions and ideology shaping the firm, the mission statement had little impact in terms of cultural reinforcement. Significantly, the dominant articulated ideology within the firm was omitted from the mission statement, again highlighting the contradictions apparent in the cultural environment. Some consultants suggested that by simply having a mission statement undermined the informality that characterised the firm.

Secondary cultural articulation mechanisms did generally serve to promote and reinforce corporate or organisational identity. The physical location and layout and firm wide events fostered notions of professionalism and elitism and highlighted transparency, inclusiveness, communication and integration within the firm. Notably however, status divides between research staff and everyone else were apparent in the office layout. Importantly the mission statement was not afforded any genuine cultural significance but stories about the Founder were. It is evident that perceptions of culture were powerfully reinforced by leadership behaviour. These served to highlight a massive cultural contradiction within the organisational environment around autonomy and control. Many structural aspects of the firm were representative of an adhocracy (Minzberg, 1983) however fundamentally the firm organised around an autocrat. This was representative of the equivocality and ambiguity inherent within the organisational environment which was tolerated and accommodated to varying degrees by individuals within the firm. In order to analyse the implications of this organisational ambiguity, the cultural analysis is extended further in the following section to incorporate multiple perspectives (Martin, 1992). An assessment will also be made as to which perspective could be considered to be the 'home' perspective within the firm.

### **7.1.3 Paramount's culture analysed from multiple perspectives**

#### **(i) The integration perspective**

It was evident from conversations and interviews with the Founder that he aimed to shape dominant ideology around processes of knowledge creation. He considered these activities to be crucial if the firm was to successfully compete in the PSF market for consultancy services. Clients were themselves experts across various disciplines and had high expectations regarding the advice and service provided by the firm. Many aspects of organisational culture served as a symbolic reflection of this dominant value. The Founder's behaviour was characterised by co-operation and knowledge sharing and

highlighted to others the importance of collaboration, learning from others and the requirement to integrate information, knowledge and expertise for processes of knowledge creation. Thus it was evident that this aspect of leadership behaviour promoted consensus around the importance of knowledge sharing and shaped norms of behaviour within the firm (Schein, 1992). The literature (Williams and Ouchi, 1983; Hedberg, 1990; Alvesson, 1995; Kunda, 1992) suggests that within this type of organisation, it is important for leaders to foster a culture that promotes normative control and consensus around core values, promoting and securing organisational identity in order to ameliorate the potentially negative consequences of individual autonomy. In this respect the organisational culture did appear to reinforce notions of professionalism and elitism which served to instil a degree of normative control right across the firm, facilitating knowledge creation. For example, in consultancy firms generally, individuals often jealously guard their client relationships. However, this did not occur at Paramount. Within this context expert knowledge was constantly required about developments across PSF sectors and much of this could only be derived tacitly from the knowledge acquired by individuals from their relationships with partners within PSF firms. Conscious efforts were made to involve consultants in several client assignments at any given time in varying capacities. The transparency within the firm meant that consultants were expected to discuss and to some extent share 'their' clients with others. Client relationships could not therefore be protected or guarded to any significant extent within this environment and this significantly served to facilitate knowledge sharing and integration.

Norms of behaviour existed then which significantly influenced processes of knowledge creation premised on transparency and knowledge sharing that were both intrinsic aspects of the cultural environment. Thus there was evidence in support of the integration perspective (Martin, 1992). There was a degree of consensus regarding the dominant

values within the firm and norms of behaviour had developed particularly with regard to processes of knowledge creation.

(ii) The differentiation perspective

Importantly however, cultural homogeneity was not sought with regard to more general norms of behaviour. When the Founder decided to expand the firm, he had deliberately recruited a diverse range of individuals in terms of experience, expertise, knowledge and aspirations. Individuals were free to work in highly idiosyncratic ways. This provided an environment characterised by requisite variety, with the potential for 'creative abrasion' or intellectual conflict, considered necessary to promote creativity and innovation (Nonaka, 1994; Leonard & Sensiper, 1998).

Support staff were also conscious of the emphasis placed on professionalism and the importance to the firm of sustaining processes of knowledge creation. They worked closely with consultants during client assignments and organisational transparency left them in no doubt about the basis on which the firm competed. Whilst this facilitated integration in terms of co-ordinated activity it did not necessarily foster consensus across the firm more generally. Many aspects of the organisational culture were considered by the support staff to be equivocal and contradictory and in combination with low levels of formalisation, were considered to promote an environment characterised by ambiguity. For example, when interviewed support staff tended to emphasise the autocratic management style of the Founder, acknowledging that this contradicted espoused notions of democracy and egalitarianism. Consultants however whilst acknowledging his autocratic style focused far more on the efforts made by him to sustain a highly unstructured environment and emphasising his professional expertise and knowledge when justifying his leadership approach. There was evidence then of differentiation across the firm in terms of differing interpretations and assumptions about the way in which the firm was organised and managed. Importantly however, this was not a source of significant tension within the firm

and personal relationships between support staff and consultants were very good.

Differentiation did not appear then to seriously constrain or mediate the co-ordinated work activity involving both consultants and support staff which was necessary for processes of knowledge creation within this organisational context.

(iii) The fragmentation perspective

Fundamentally however, there was again in this firm, considerable evidence in support of the fragmentation perspective that supported and legitimated the differentiation that existed. That is, the organisational ambiguity allowed for multiple perceptions of organisational reality (Martin, 1992) and these did not fundamentally impede or constrain knowledge creation processes

For example, there was considerable ambiguity concerning overall organisational configuration. Support staff were well aware of the informal hierarchical and status distinctions that existed within the firm despite the efforts made to de-emphasise hierarchy and foster participatory decision making. During interviews with support staff comments were made such as

“In theory the firm sees itself run incredibly democratically but if you ask any of the PAs, there’s this whole ‘us and them’ scenario when decisions are made”.

Consultants perceptions of hierarchy also varied considerably, ranging from discussions focused on the flatness of the firm to discussions that focused on the top-heavy nature of the firm. There was however consensus that the firm was led autocratically by the Founder. These multiple interpretations of the organisational configuration were characterised then ultimately by paradox highlighting the inherent tensions that exist between autonomy and control within KIFs (Alvesson, 1995).

In addition, there were significant levels of interpretative ambiguity surrounding the mode of organising, procedures for selection and performance management. Consultants valued what they perceived to be an informal, participatory approach to organising. This served to

maintain an environment in which there was extremely loose coupling between actions and outcomes (Weick, 1975). For example, consultants worked on R&D activities but when and in what form outputs would be produced was never pre-defined. Whilst there was a processual template structuring consultancy assignments, approaches to information gathering, analysis and synthesis were idiosyncratic and mediated by the knowledge and expertise within the project team. Ways of working then were not standardised but relied heavily upon the collective (social/tacit) knowledge within the firm together with previous project documentation or objectified (social/explicit) knowledge (Spender, 1996). Hence, there was an importance attached to producing comprehensive project documentation including summaries or transcripts of all interviews and telephone conversations with clients. These had to be formally recorded and filed with project documentation.

Individuals used the metaphor of the 'Paramount' crystal ball in discourse to describe organisational ambiguity. During interviews and informal conversations with both support staff and consultants this metaphor was used regularly to describe the intuitive nature of work and organising at Paramount.

Support staff generally perceived the organisational ambiguity to be a source of frustration leading to organisational inefficiencies. Attempts to introduce more formalised systems and procedures by them to monitor the progress on client assignments were met with disinterest and cynicism, particularly by senior consultants. This highlighted consultants' conscious rejection of the introduction of any formalisation in their work

Support staff often socialised after work together. On these occasions support staff vented their frustrations about the nature of the working environment. Occasionally one or two of the junior consultants joined them and this did not appear to inhibit the comments that were made. Support staff consciously sought to maintain control over these occasions as it was their only real opportunity to openly discuss the problems of working in such a loosely structured yet autocratic environment.

Paramount Consulting was characterised then by cultural ambiguity, reflected in action, symbolic and ideological ambiguity (Martin 1992). For example, action ambiguity was evident in the lack of influence support staff and junior consultants actually had in what was considered to be a democratic organisational environment. Leadership behaviour also highlighted the action ambiguity inherent within the organisation. Whilst the Founder attempted to shape and develop a highly autonomous working environment, organisational reality was fundamentally cast by an autocratic leadership style. Symbolic ambiguity was evident in the design of the physical space which reinforced the low status of researchers and was articulated in organisational discourse that focused on a 'crystal ball' approach to work activity and communication. Ideologically, ambiguity surrounded the need to work professionally, applying expertise and knowledge in order to develop innovative solutions, whilst at the same time behaving in ways that acknowledged that 'the client was king'. These two dominant values were fundamentally inconsistent because the time pressures imposed on consultants by clients were perceived to constrain processes of knowledge creation. This did generate tension within the organisation, which was not acknowledged or addressed by the Founder.

Whilst there was evidence of integration and differentiation, the fragmentation perspective was most strongly supported by the organisational conditions and could be considered to be the 'home' perspective within the firm (Martin, 1992). Whilst there was consensus around a limited set normative values concerned with knowledge sharing and the need to work co-operatively and collaboratively across the firm, there was little consensus around other structural aspects of the firm and modes of organising etc. Importantly however, this differentiation did not hinder major work activities in any way. In addition, individuals across the firm held widely divergent professional and personal viewpoints that were articulated both within and outside of project team working.

Individuals were comfortable expressing dissensus and the existence of a support staff sub-culture did not disrupt or constrain the overall mode of organising (indicative of the differentiation perspective). Differentiation was tolerated and legitimated in this environment characteristic of the fragmentation perspective (Martin, 1992) and interpretative ambiguity inherent within the firm. Differing views on professional standpoints were also expected during project working and considered to be part of project working, generating 'creative abrasion' (Leonard and Sensiper, 1998).

Importantly however, organisational members, even relatively new consultants did refer to the 'Paramount' culture, suggesting that the organisation did have a strong culture. It was also evident that individuals' reactions to ambiguity differed. Consultants appeared to accommodate the ambiguous environment far better than support staff. They appeared to be able to accommodate the autocratic approach of the Founder and focused their attention instead on the informality within the firm and the autonomy they were afforded within and outside of project working. Support staff found the informality and autonomy they were afforded confusing operationally and the Founder's autocratic approach intimidating. Autonomy or self-management is considered fundamental to processes of knowledge creation (Mintzberg, 1983; Nonaka, 1994, Kanter, 1988). Thus the role of cultural ambiguity in sustaining processes of knowledge creation was critical. This analysis will be developed further in the following chapter where a number of conceptual developments to existing theory will be proposed.

In the following two sections the nature of intra-organisational relationships is analysed. In the next section the fundamental basis of power relations and other dimensions of power are considered in order to further refine the analysis. In section 7.3 consideration is given to the role of trust relations on processes of knowledge creation. In section 7.4 the interaction of culture, trust and power is considered with regard to their combined influence on sustaining processes of knowledge creation.

## **7.2 The role of power in processes of knowledge creation**

The discussion on culture highlighted that the Founder had always attempted to de-emphasise power relations within the firm. Nevertheless, it was generally perceived that the Founder had ultimate authority and power within the firm which fundamentally shaped the way in which the firm was organised and importantly influenced processes of knowledge creation. The way in which this occurred is considered across the three dimensions of power (Lukes ,1974).

The Founder had ultimate power of resources within the firm. He controlled the financial resources and had the power to reward or sanction individuals as he deemed appropriate. As has been discussed previously however (section 7.1.1) the approach he adopted was aimed at reinforcing notions of autonomy and no sanctions had ever been imposed on consultants. He recognised that processes of knowledge creation were problematic, complex and unpredictable. The firm had grown in terms of profitability and turnover in the three years leading up to the research period and consultants perceived themselves to be jointly responsible for achieving this growth. When consultancy assignments were lost, the firm tended to treat this as the responsibility of everyone, not simply the team that developed the client proposal.

Expertise as a resource was prevalent throughout the firm and because of the diversity of expertise, no individual consultant, other than the Founder, was considered to be more powerful premised on their expertise. Even senior consultants regularly sought the expertise and knowledge of others within the firm. The Founder however was considered to have the 'best mind' within the firm and he was generally considered to be unrivalled within the firm. There was considerable evidence of his expertise, not only in the amount of client assignment work he was directly involved in, but also in the sheer amount of journal articles, conference presentations and bulletins that he personally developed.

Significantly then, the Founder reinforced his position power (Lukes, 1974) within the firm by virtue of his expert power (Pfeffer, 1992). The impact of this potentially served to constrain processes of knowledge creation. For example, project team working tended to be self-organised in the main and this facilitated processes of knowledge creation as consultants worked on a variety of projects, in varying capacities with people with different expertise and knowledge. Project leaders typically were the consultant who had most contact with the client. Thus decision making within project teams tended to be dispersed throughout the firm, reinforcing notions of egalitarianism and de-emphasising the informal hierarchy. However, on client assignments involving the Founder or client assignments that were supposedly led by relatively junior consultants, he did assume the lead consultant role premised on his position power within the firm. This importantly potentially constrained processes of knowledge creation. Consultants stated that there was a tendency towards self-censorship when the Founder led a consultancy assignment that limited the intellectual conflict or creative abrasion in project team discussions (Leonard and Sensiper, 1998). This is considered to be a significant barrier to knowledge creation. Self-censorship occurred because the Founder's approach during project team discussions was perceived to be intimidating. Self censorship also occurred when teams of consultants were required to formally present the results of their work derived from R&D activities to the Founder. Consultants stated that if he fundamentally disagreed with the analysis or believed it lacked rigour he was extremely critical. Hence consultants tended to censor their comments and generally found his approach highly intimidating in an otherwise extremely autonomous environment. A consultant stated

“It's a bit like the Pope really everything you do has to have his blessing”.

The Founder perceived the situation differently. He stated

“You have to be careful in a sense and not give the wrong messages. I have been called arrogant, I don't think I am, I just like to challenge things. If I'm wrong, I'm wrong. I'm very sensitive when

people are developing things and if it's not very good. I would not dismiss it and try to encourage them to make sure they come up with something better. It's a leaders role to be involved".

He perceived his approach to be challenging and involved yet it was his perceptions of 'good' that mattered. Consultants however, who all considered themselves to be experts in particular fields found his leadership style contradicted the autonomy they were generally afforded. His status and power position provided him with the opportunity to revise and modify any new knowledge created around specific issues. This potentially constrained processes of knowledge creation as it produced social closure around knowledge (Scarbrough, 1995) characterised by self censorship and censorship by the Founder.

Power of processes (Lukes, 1974) focuses attention on the way decision making occurs, in terms of participants in the decision making process and outcomes. Genuine participatory decision making in day-to-day operations was limited and largely rhetorical. The Founder was always ultimately responsible for decision making based primarily on his and others' judgements of situations. Here status was important as he relied primarily on the judgements of his senior consultants on which to base final decisions for example, during the selection process. Thus in addition to power of resources the Founder fundamentally controlled power of processes.

The Founder was also in a position to engage in the active 'management of meaning' (Alvesson, 1996) and to some extent shape some aspects of organisational culture in ways that reinforced the importance of knowledge sharing and integration. His actions with respect to knowledge sharing, help-seeking and inclusiveness served as symbolic reinforcement of the importance of these activities for processes of knowledge creation which were generally shared throughout the firm. Despite his intimidating style on occasions, everyone regularly sought his advice and expertise. He too would occasionally seek help from others. In this respect power of meaning promoted the development of normative control around these core values and shaped the behaviour of other

organisational members. He also actively shaped corporate culture in ways that reinforced notions of elitism and professionalism. Thus in this respect too, power of meaning (Lukes, 1974) was important.

Fundamentally however, the organisational culture at Paramount was characterised by ambiguity accommodated and tolerated to varying degrees by support staff and consultants. Thus many cultural mechanisms, including the actions of the Founder were perceived differently by different people. Most consultants perceived many of these mechanisms to reflect informality and autonomy whilst support staff and some consultants perceived the same mechanisms to reflect hierarchy and autocratic approaches to organising. It is important to recognise that in this particular respect, the Founder was not exercising power of meaning here. He attempted to develop mechanisms that would be perceived as reflecting autonomy and informality. However, it was evident that individuals afforded different interpretations to them that shaped and legitimated different beliefs and behaviours. This highlights a departure from existing literature on normative control (Kunda, 1992; Willmott, 1993) that has tended to assume that leaders of firms with strong cultures are in a position to promote a hegemonic or all encompassing form of normative control such that a consensual set of shared beliefs are held. This analysis will be developed further and conceptual developments proposed in the following chapter.

### **7.3 The role of trust relations in processes of knowledge creation**

Consultants throughout the firm did appear to be willing to share their personal knowledge with others freely both within and outside of project working. This altruistic behaviour is considered to be characteristic of high levels of affect-based or unconditional trust existing within the firm (McAllister, 1995; Jones & George, 1998). However, for affect-based trust to develop a degree of cognitive-based or conditional trust needs to already exist (McAllister, 1995). The selection process involving all consultants was an arena in which cognitive based trust could develop. When making individual assessments about social fit,

consultants were afforded the opportunity to make personal assessments both about the candidate's professional knowledge and expertise and significantly their willingness to work co-operatively, sharing and integrating their individual knowledge base with others. Positive assessments of professional capability and citizenship behaviour served to promote the development then of cognitive-based or conditional trust. It was evident that the Founder regarded the selection procedure as a major vehicle through which to establish trust relations. He stated

“My approach is that I always trust people from day 1. They say you should never trust anyone in business but on day 1 I always assume everyone means the best. So I don't mind if they are an introvert or extrovert, as long as they've got an inquiring mind, that approach and they have the ability to reflect. That means in our business they are going to be considering new issues they are not going to be satisfied with the same thing week in week out”.

This analysis suggests that the inter-relationship between the development of trust relations and organisational culture is significant. Cultural dimensions of the firm included transparency and an emphasis on collaboration and co-operation. During the selection process consultants were assessing to what extent candidates could be trusted to work in this way. If the assessment was positive then a level of cognitive based or conditional trust developed about the candidate.

At Paramount, reliant on so few individuals, successful candidates would be immediately immersed into a working environment characterised by high levels of reciprocal interdependence that demanded free knowledge sharing. The conscious efforts that were made to involve consultants in multiple client assignments in differing capacities, together with project working on specific R&D issues meant that individuals were from the outset working collaboratively with a variety of people across the firm. This meant that new consultants were expected to adopt behaviours immediately that were characteristic of high levels of affect based or unconditional trust. These behaviours are considered in most of the literature to develop only slowly over time with repeated inter-actions although there

has been acknowledgement that swift trust can develop (Kramer and Tyler, 1996).

However, knowledge creation processes at Paramount demanded considerably more than simple co-operative team working arrangements and consultants were expected to shape their behaviour in ways that acknowledged the high degree of inter-dependency and reciprocity that existed. Expertise and knowledge was required from multifarious sources and whilst project teams were small it was assumed that the knowledge base of the firm (individual or social) could be drawn upon when tackling problematic issues. Rather than processual outcomes then, as suggested by Jones and George (1998), these behaviours were grounded in normative expectations from the outset. Affect-based or unconditional trust was manifest then in altruistic or citizenship behaviour of which there was considerable evidence within and external to project working. For example one consultant stated

“Just walking down the corridor people will ask you how a particular project is going. When you go to meetings people will wish you luck and afterwards seek you out to ask how it went and offer specific help and advice. It’s an incredibly supportive environment very different from where I worked before. Here people are genuinely interested in what you are doing”.

This comment highlights self-initiated behaviour characterised by individuals’ needs-based monitoring of others (McAllister, 1995) which was an intrinsic aspect of organising and work activities at Paramount. Affect-based or unconditional trust (Jones and George, 1998) was also manifest in the help-seeking behaviour that occurred. Across the firm consultants would draw attention to their knowledge-deficiencies and engage in help-seeking behaviour. For example, a senior consultant stated

“I’m doing some work with Firm X at the moment and I went to bounce some ideas of Y. Z is someone I go to and talk about certain issues. Others I simply use to brainstorm ideas with”.

Another senior consultant discussed the way in which the Founder often went to him for specialist advice regarding recent developments within the UK legal sector. This highlights the way in which consultants at Paramount (including the Founder) were not afraid to

display knowledge-deficiencies, an attribute which Starbuck (1992) suggests is a major barrier to learning within KIFs. Help-seeking behaviour actually served to highlight the high levels of inter-dependence that existed within the firm. Thus the high levels of affect based or unconditional trust that existed in the firm played an important role in facilitating processes of knowledge creation. In Paramount, reliant on so few people these did not develop slowly over time, they were a necessary organisational condition and characteristic of the development of swift trust.

Jones & George (1998) state that unconditional trust is premised on the development of shared values and shared identity characteristic of the integration perspective on organisational culture (Martin, 1992). However the extent to which there existed shared identity was limited to generic organisational discourses which focused on elitism and professionalism rather than more situated discourses privileging particular ways of doing or knowing. Despite the use made of a standardised approach to projects in terms of a broad chronological ordering, consultants did have their own particular ways of gathering and analysing information and knowledge.

The discussion in chapter 6 highlighted the extent to which diversity had been encouraged within the firm. Organisational culture was such that ambiguity rather than consensus permeated the organisation. The research here suggests then that there is maybe too much emphasis placed in the existing literature on trust and the importance of shared value systems. Here in this research it was evident that the organisation consisted of a diverse range of individuals, considered crucial for knowledge creation (Nonaka, 1994) with diverse values that had to be accommodated. Yet there still existed apparently high levels of unconditional trust that was established quickly. This analysis is developed further in the following chapter.

It was also evident that working in this particular way, characterised by high levels of unconditional trust, had resulted in the development of collective knowledge which Jones

and George (1998) and others (Spender, 1996; Grant, 1996a, 1996b) consider to be a source of organisational advantage. At Paramount this collective knowledge tended to be referred to as 'intuitive' ways of working. Over time, constant involvement and interaction with other consultants during project work had led to ways of working emerging that were not necessarily articulated but were tacitly understood across the firm. These unarticulated routines facilitated project team working.

This analysis has highlighted the mutually constitutive and self-reinforcing relationship that existed between organisational culture and trust relations within the firm. Knowledge sharing was fundamental to the primary work activities at Paramount and the nature of the selection process afforded other consultants the opportunity to subjectively assess individuals' propensity to share their knowledge with others. Successful candidates were then by default trusted from the outset by other organisational members to behave in this way. The mode of organising meant that almost immediately new incumbents were expected to interact with others intensely, reciprocally and collaboratively. This served to foster and reinforce high levels of affect based or unconditional trust across the firm. Within this working environment norms of behaviour had developed characterised by altruism and help-seeking. Thus organisational culture shaped and augmented trust relations and vice versa.

In Chapter 2 it was highlighted that much of the literature on trust reflects rather simplistic relationships between manifestations of trust relations and processual outcomes. Whilst there is an acknowledgement that organisational culture influences the development of trust relations, social processes such as free sharing of knowledge and help-seeking behaviour are considered to be outcomes of the gradual development of high trust relations. There exists then a lack of recognition that within certain organisational contexts, in particular some KIFs, rather than processual outcomes these behaviours are intrinsic

normative expectations. Cultural conditions are such that individuals are expected to freely share their knowledge with others and acknowledge openly any knowledge deficiencies.

#### **7.4 The interaction and inter-relationships between culture, trust and power**

There existed then complex inter-relationships and inter-play between organisational culture, trust and power within the firm. An ambiguous organisational culture served to influence and shape individual behaviour in such a way as to facilitate processes of knowledge creation. This analysis will be developed further in the following chapter.

Organisational identity, broadly characterised by professionalism and elitism was fostered by the organisational culture and knowledge integration, co-operative and collaborative behaviour was shaped by a degree of normative control. However an ambiguous environment meant that there was predominantly equivocality surrounding expectations of performance, norms of behaviour, and means ends relationships. This context allowed consultants to work in highly idiosyncratic ways with a diverse range of other skilled and knowledgeable individuals and this diversity facilitated processes of knowledge creation. Importantly, the culture shaped co-operative behaviour in such a way as to promote and perpetuate high trust relations within the firm both within and across project team working. High trust relations, manifest in help-seeking and altruistic behaviour made more efficient processes of knowledge creation as knowledge search and acquisition was facilitated. This behaviour also served to enlarge and amplify both individuals and the collective knowledge base of the firm.

Cultural ambiguity importantly served to disguise the position power of the Founder which posed a massive contradiction within what was purported to be a democratic, egalitarian environment. The analysis has also shown that the Founder's power and status within the firm did potentially constrain processes of knowledge creation in a number of ways.

Individuals engaged in self-censorship when actively involved with the Founder. In addition, his power position within the firm also enabled him more generally to shape and

modify the knowledge that was created around particular R&D activities thus censoring and producing social closure around the knowledge base. Thus, whilst the cultural environment encouraged transparency, there was rarely open discussion regarding the Founder's highly autocratic approach to leadership which this analysis has highlighted. An open acknowledgement of power by consultants was perceived as a threat to collaboration and autonomy. Thus cultural ambiguity representative of power of meaning (Lukes, 1974) served to obscure the power of the Founder such that whilst it was tacitly acknowledged it was rarely articulated.

In the following chapter the analyses of the case firms presented in this chapter and the preceding three chapters will be juxtaposed with existing literature presented in Chapter 2 in order to refine and develop an analysis of the way in which processes of knowledge creation are sustained over time within expert consultancies.

## **Chapter 8 Knowledge creation in a social context**

### **Introduction**

The major findings from the two case studies highlight the way in which this research has focused on knowledge creation within its social and cultural context as well as the structural conditions that might promote knowledge creation. Existing literature in the field of knowledge work, innovation and creativity has tended to focus primarily on the role of structural conditions in processes of knowledge creation. Where social relations have been discussed they have tended to be treated in a narrow, functionalistic way in much of the literature. For example, Nonaka (1994) refers to the importance of processes of socialisation for knowledge creation without explaining how this might occur. Brown and Duguid (1991) when discussing the concept of 'communities of practice' also tend to promote a unitary view of organisations and ignore important issues such as power and trust. Alvesson (1995) in his study of a KIF did however, explore the importance of social relations within this particular type of organisational context. The empirical findings and conceptual developments discussed in this chapter aim then to extend this area of research and address the significance of social and cultural conditions in processes of knowledge creation. Thus, this chapter hopes to contribute to the theoretical debates in the literature around the nature of knowledge work and the management of knowledge workers.

First, it is important and necessary initially to characterise and outline how processes of knowledge creation occurred within the case firms. In section 8.1 therefore processes of knowledge creation and how they were changing over time are discussed by using taxonomies and theoretical frameworks from the literature (c.f. Nonaka, 1994; Spender, 1996; Blackler, 1995; Scarbrough, 1996). This discussion will highlight the way in which some qualified consideration of the wider institutional context can provide further insight and understanding of organisational processes of knowledge creation. Having

characterised processes of knowledge creation, the first objective within this research, then in section 8.2 the significant influence of particular organisational attributes on processes of knowledge creation will be discussed. This discussion and the conceptual developments presented here on modes of organising within KIFs contribute partially to an understanding of the way in which processes of knowledge creation were sustained over time within the case firms. To develop this further and in order to provide a substantive understanding of the way in which processes of knowledge creation were sustained the role of organisational culture will begin to be explored in section 8.3. In section 8.4 developing this theme, the critical significance of cultural ambiguity in sustaining processes of knowledge creation is examined with attention given to its normative influence and effect on individual behaviour. Conceptual developments with regard to the role of culture in processes of knowledge creation are proposed in this section. In section 8.5, the way in which individuals coped with cultural ambiguity is examined and further conceptual developments are proposed. The conceptual developments proposed in sections 8.4 and 8.5 represent the major findings from this research. In section 8.6 the role of power in processes of knowledge creation is explored and in Section 8.7 the role of trust in processes of knowledge creation is developed. This section concludes with further conceptual developments that contribute to theory development in the field of knowledge creation. Finally, to conclude the thesis in section 8.8 the critical contextual conditions sustaining processes of knowledge creation within the case study firms are summarised. The implications of the conceptual developments proposed in this research will be considered in relation to existing theory on knowledge work, the management of knowledge workers and organisational culture and the implications of an ambiguous culture are explored in terms of the sustainability of this mode of organising over time. The thesis concludes by considering the way in which research on the management of knowledge workers and modes of organising within KIFs might be extended.

## **8.1 Processes of knowledge creation within the two firms**

In this section the knowledge creation process and how it changed over time within both of the case firms will be discussed. The section will conclude with a discussion of the influence of the wider institutional context on organisational processes of knowledge creation.

### **8.1.1 Mapping processes of knowledge creation over time**

Knowledge creation processes at Universal fundamentally relied upon individuals representing a broad, expert scientific knowledge base coming together in project teams and participating in co-operative, collaborative, self-managed work. During project team working individuals would create new knowledge by conducting basic scientific research either individually or jointly and this would be integrated and synthesised with existing scientific knowledge that resided both tacitly and explicitly within the team typically through face-to face communication, in collective processes of knowledge creation.

At Paramount, information and knowledge about the client firm would also be acquired and created by individuals working relatively independently. Individuals would then come together in teams and through processes of face-to-face communication, jointly interpret, reconfigure and synthesise the information and knowledge that had been created and gathered, creating new knowledge relevant for the project. Again then there was considerable reliance on co-operative, collaborative action within the firm and high levels of inter-dependency between experts spanning a fairly wide knowledge base.

Processes of knowledge creation generally in both firms then were characterised by face-to face communication across a broad, diverse but specialist knowledge base. Individuals each with their own tacit and explicit knowledge base came together and through processes of externalisation and combination (Nonaka, 1994), reconfigured and synthesised their knowledge with others creating new objectified knowledge which was manifest in some form of project documentation (Spender, 1996). Objectified knowledge is explicit

knowledge residing at the social level. It is important to recognise that in addition, when working jointly with others in the project teams, individuals' knowledge bases would also be enlarged and amplified. During project team working individuals were exposed to new knowledge, through all four modes of knowledge creation – internalisation (via experimentation), externalisation (via face-to-face communication), socialisation (with other project team members) and combination (via project documentation) (Nonaka, 1994).

Because consultants did not have to account rigorously for their time within each of the case firms, there were opportunities to incorporate redundancy (Nonaka, 1994) into the process considered to be important for processes of knowledge creation. For example, at Universal consultants had time and were encouraged to experiment for themselves during project work rather than rely on previous project work for scientific knowledge pertinent to current project working. Whilst this did not inevitably lead to the creation of new knowledge it did introduce redundancy into the process. At Paramount consultants were encouraged to conduct interviews across multiple sources within the client firm and with the client's clients. Whilst often similar information and knowledge was acquired, this process was considered fundamental to the creation of new knowledge relevant to the current project. The way in which project teams were created, representing a broad diverse knowledge base also introduced requisite variety (Nonaka, 1994) into the process. Individuals were exposed to variety not only in terms of other individuals' knowledge bases but also in the different types of project work they were exposed to and involved in. Thus the most important structural factors considered to promote knowledge creation were fostered within the case firms, supporting Nonaka's analysis of knowledge creation (Nonaka, 1994).

Nonaka (1994) suggests further, that knowledge creation through processes of socialisation (tacit/tacit knowledge exchange) is problematic because of the problems associated with

the articulation of tacit knowledge. However in both firms, these problem were minimised because the relative stability of the workforce over time and constant interaction with others, both within and outside of project work, had promoted the development of collective or common knowledge (Spender, 1996, Grant, 1996a). This facilitated communication across these firms and processes of knowledge creation generally. In addition, both firms could be characterised as ‘communities of practice’ (Brown and Duguid, 1991) of scientists and lawyers. As such then there existed a fundamental professionally-based shared language within both firms that served as the basis for the development of collective knowledge. Spender (1996, 1998) and Grant (1996a, 1996b) assert that collective knowledge is the most strategically important type of knowledge for the firm as other firms will find this knowledge hard to imitate, premised on its social, tacit foundations. Existing literature has not fully addressed the importance of collective knowledge for processes of knowledge creation. In particular, existing literature has not considered the way in which collective knowledge can overcome some of the problems associated with socialisation modes of knowledge creation (Nonaka, 1994). This may be because Nonaka only acknowledges knowledge creation existing at the individual level. For example, collective knowledge at Paramount developed when consultants shadowed other consultants and this overcame some of the problems associated with the development of tacit knowledge around managing client relationships and interviewing clients.

### **8.1.2 Exploring the differences in knowledge creation across the firms**

Whilst then there were considerable similarities in the way processes of knowledge creation occurred within both of the case firms, it is also important to acknowledge and explore the conceptual implications of any differences that were found.

At Universal, for example, it was becoming more problematic to sustain and promote the development of collective knowledge over time. The demands imposed by the performance management system and the imposition of a divisional structure, meant

collective knowledge was beginning to develop within divisions which was not necessarily shared across the firm. Whilst this potentially facilitated purely intra-divisional project teams' working, it potentially diminished or obscured the overall creation of collective knowledge within the firm. During the period of the research then, divisional communities of practice (Brown and Duguid, 1991) were beginning to emerge that were potentially undermining the firm-wide community of practice that had existed throughout the firm's history.

In addition, and also driven by the demands of the performance management system, individuals had acquired transient power bases, premised on their scarce expertise and skills internally and their ability to successfully market to clients. Thus over time the firm had begun to be more reliant on particular individuals. These two gradually evolving changes were a reflection of the way in which dominant knowledge types (Blackler, 1995) may not actually dominate but rather co-exist with one another and be relied upon in processes of knowledge creation jointly over time. The analysis highlighted the way Universal had begun to rely slightly less on encultured knowledge characteristic of a communication-intensive firm and slightly more on the embrained knowledge and skills of individuals i.e. becoming slightly more symbolic-analyst dependent over time (Blackler, 1995). This very gradual shift was also paralleled by subtle changes to modes of knowledge communication (Scarbrough, 1995). Whilst there was still a significant reliance on professionalism as the dominant mode of knowledge creation, objectified and sedimented forms of knowledge communication were beginning to be used as broadcasts for knowledge were made by via e-mail, standardised approaches to work activities were being developed by divisions and formalised divisional and reward structures emerged. At Paramount considerable effort was made to enlarge and expand new incumbent's individual knowledge bases. For example, new consultants to the firm were encouraged to shadow other consultants, a form of deliberate role modelling. This activity promoted

socialisation (tacit/tacit) modes of knowledge creation (Nonaka, 1994). This approach was notably absent at Universal. Recent appointees at Paramount were also expected to read and absorb a considerable number of internal company reports and academic texts, together with vast quantities of project documentation when they first joined the firm. This promoted internalisation (explicit/ tacit) modes of knowledge creation. Through these dual modes of knowledge creation, norms of behaviour developed around the way in which project work was conducted and expectations regarding the structure of the consultancy process and the tangible output derived from project working. Thus Paramount was gradually becoming to rely upon socially constructed, encultured knowledge as well as the embrained knowledge of expert consultants (Blackler, 1995). This change however, was not paralleled by increasing reliance on professional modes of communication as might have been expected from the literature (Scarbrough, 1995). At Paramount there had always been considerable reliance on sedimented forms of knowledge communication (in the form of previous project documentation and generic templates) during project work in addition to the dominant professional mode of knowledge communication (Scarbrough, 1995). This analysis of the changes that were occurring over time has demonstrated the utility of these structural classifications for characterising, at a very rudimentary level organisational processes of knowledge creation and how they might change over time. This analysis has highlighted the changing nature of processes of knowledge creation over time and drawn attention to the importance of understanding processes of knowledge creation dynamically rather than statically. Some of the literature in this area posits fundamental paradigm shifts in dominant modes of knowledge creation (Blackler, 1995; Gibbons et.al., 1994, Reed, 1998,). For example, Blackler (1995) suggests that over time, most firms will come to be more reliant on encultured forms of knowledge. However this analysis has served to highlight the subtlety of the changes that occur over time, emphasising that depending on the organisational context (i.e. expert consultancies), processes of knowledge creation can

be characterised differently and do not necessarily reflect the major paradigm shifts proposed in some of the literature. This highlights the context-dependency of knowledge creation that has not been addressed sufficiently in the literature to date.

There was one further difference between the two case firms which needs to be addressed here that highlights the importance of acknowledging the role of the wider institutional context. Sorensen and Levold (1992) identify the importance of the meso level context, defined as the level of intermediate institutions and institutional arrangements (networks) in shaping patterns of knowledge sharing. These intermediate institutions were demonstrated in their research to significantly shape innovation processes in terms of the social construction of knowledge. Whilst the focus in Sorensen and Levold's research was predominantly on the role of networks in innovation, this work alerts us to the potential significance of intermediate institutions in shaping knowledge creation. Significantly, existing taxonomies of knowledge and knowledge creation largely ignore the role of intermediate institutions and wider social networks in shaping processes of knowledge creation. Whilst it is acknowledged that professions and disciplines shape norms of behaviour, the focus in the existing literature tends to be on managing the conflict that can develop between clashes of professional and organisational culture that promote different expectations and norms of behaviour (Raelin, 1991; Scarbrough, 1996; Scarbrough, 1999). Existing literature has not tended to explore the role of intermediate institutions in processes of knowledge creation although some literature has considered their role in knowledge diffusion (Clark, 1989; Swan and Newell, 1995). Whilst the focus of analysis here in this research is on the way in which processes of knowledge creation were sustained, important differences were found when mapping the knowledge creation process in both firms. An explanation of these differences may usefully be informed by consideration of the influence of the wider institutional context on shaping norms of behaviour during processes of knowledge creation.

### **8.1.3 The significance of the wider institutional context for understanding processes of knowledge creation**

It has been emphasised that processes of knowledge creation were similar in some respects in both firms. However, there were also differences. Significantly, it was apparent that at Universal, there was very little reliance on objectified (collective/explicit) knowledge (Spender, 1996) within project team working. That is, very little attention was given to objectified knowledge existing in the form of previous project documentation during current project working and little effort was expended generating project documentation that was of sufficient explicit quality to make it easily accessible and communicable for future use. Thus objectified knowledge and sedimented modes of knowledge communication (Scarbrough, 1995) were not considered particularly important by the consultants to scientific processes of knowledge creation at Universal. Consultants instead relied primarily on their own and others' often individual tacit expert knowledge base in processes of knowledge creation.

Universal develops scientific solutions in order to satisfy client requirements. In order to develop these solutions, scientists and engineers from a number of different scientific and technological specialisms conduct applied scientific research, then come together bringing with them individual expertise which, whilst applied tacitly during experimentation, is acknowledged as scientific 'fact' by individuals working within the project team. Jointly, based on the results of their individual efforts, they create scientific solutions. As Sorensen and Levold highlight, scientific facts once proven experimentally are relatively easily transferable, without a host of replications, in paper based forms of communication "that are at the core of the scientific enterprise" (Sorensen and Levold, 1992:20). Whilst scientific knowledge is subject to tacit application in experiments, thus potentially creating new knowledge, there is relatively little reliance or importance placed on objective facts once scientifically proved. Once proved and accepted they are rarely

contested. It is the tacit application and synthesis of different forms of scientific knowledge or facts, premised on the skills and expertise of individuals in processes of knowledge creation that is important. At Universal, this process when successful led to the development of IPR - the tangible results of the knowledge creation process. Universal's clients were not particularly interested in *how* IPR were developed. The patent process at the institutional level of the scientific community importantly validated the knowledge claims embodied in the invention or innovation. Thus it is feasible that there was no real motivation to expend effort in creating good quality project documentation because clients were not demanding it and scientific processes of knowledge creation were not reliant upon it.

There was however, considerable reliance on objectified knowledge, existing as previous project documentation in current project work at Paramount. New consultants were encouraged to read and acquire knowledge from previous project documentation rapidly and current projects relied heavily on knowledge embedded in project documentation derived during previous project work. This again appeared to be a reflection of the influence of institutional norms associated with the production of objectified knowledge (Spender, 1998) within the legal profession. Whilst all bodies of knowledge are subject to social construction and interpretation, this process is amplified significantly in the legal profession. This is because legal knowledge is premised in legal precedent that can only ever be subjectively determined in an interpretative manner. Legal knowledge or facts are more prone to change over time as new legal precedents are established which fundamentally change the basis of some legal knowledge. For example, it is only very recently in the UK that a killing when proven to be premeditated need not necessarily result in the defendant being found guilty of 'murder' – a legal fact. Instead the defendant may be found guilty of 'manslaughter by reason of provocation' – a lesser penalty, if it can be proven that the crime was caused by extreme provocation over an extended period of

time. Thus the legal knowledge around the issue of murder and manslaughter has changed and been interpreted differently quite recently in the UK (The Criminal Appeals Report (Sentencing), 1998). In addition, legal precedents are different across and within nations (e.g. the United States). Legal knowledge is therefore subject to different interpretations and reinterpretations at different times and across different locations. Thus there is far more emphasis and reliance placed upon the creation and maintenance of text based *contemporary* legal knowledge.

Conversely, scientific facts and knowledge whilst subject to disproof are subject to change rarely (Sorensen and Levold, 1992). Scientific knowledge is then generally accepted and can be communicated in summary form without lengthy documentation or justification. In addition scientific knowledge is also global knowledge and is generally interpreted in very similar ways across nations. Thus, more generally there is far less reliance on scientific knowledge located as objectified knowledge and more reliance on the tacit application of scientific knowledge during experimentation.

Legal knowledge however, is subject to different institutional norms which have developed at the meso or intermediate level that reinforce the importance of communicating and codifying that knowledge explicitly, in a text based form so that it exists as objectified knowledge. This process occurs because legal knowledge has far fewer accepted premises. There is therefore far more opportunities for interpretation and reinterpretation. Facts can be presented in support of the way in which conclusions or inferences were made and to make explicit the way in which existing legal knowledge has been interpreted, which may have resulted in the development of new legal precedents. Thus the institutional context again plays an important role in validating knowledge claims and institutional norms have developed that promote the objectification of legal knowledge. Thus processes of knowledge creation within a legal context are not predominantly reliant on the application and integration of individuals' tacit and explicit knowledge bases they are also intrinsically

reliant on a social, objectified knowledge base which serves to validate claims to knowledge.

Whilst the knowledge creation process at Paramount was not only reliant on legal knowledge (in fact knowledge pertaining to legal markets and sectors was equally important), the majority of consultants and clients were lawyers. Legal cultural norms then promoted the development of and reliance on objectified knowledge within projects and good, precise project documentation. This was exemplified in the way in which even short telephone conversations between consultants and clients would be made explicit in letters of which one copy would be filed in project documentation and one copy would be sent to the client.

This analysis has highlighted the way in which some consideration of the wider institutional context can provide useful insight into the way in which organisational processes of knowledge creation are shaped. It has also highlighted the way in which scientific and technological processes of knowledge creation rely more on tacit, largely unarticulated knowledge. Whereas legal processes of knowledge creation rely more upon interpretative knowledge which is primarily text based. This analysis has also highlighted the role of intermediate institutions in validating claims to knowledge which previous research and literature on organisational processes of knowledge creation has largely ignored. The brief account outlined here suggests that the influence of intermediate institutions on organisational processes of knowledge creation warrants further attention by researchers (Swan and Newell, 1995). More generally, this retrospective historical analysis of knowledge creation has highlighted that modes of organising within expert consultancies comprise a more complex and haphazard blending of the different forms of knowledge and knowledge communication than that depicted in the existing literature. Neither Universal nor Paramount fit neatly into a particular category using Blackler's summary framework. This highlights the difficulties of categorising forms of knowledge

and organisations using taxonomies because they tend to oversimplify and overstabilise analyses of knowledge and organisations (Wikström and Normann, 1994; Tsoukas, 1996). Thus, knowledge creation processes have been broadly mapped within the two case firms, in order to contextualise what actually occurred during project work. The analysis led to some conceptual developments with regard to the context dependency of knowledge and the role of intermediate institutions in shaping processes of knowledge creation. It highlights the significance of incorporating the meso level of analysis into future research on organisational processes of knowledge creation. In the following section, some of the structural conditions that served to sustain processes of knowledge creation are explored and conceptual developments around modes of organising within KIFs are proposed.

## **8.2 The influence of structural conditions on sustaining processes of knowledge creation**

When conducting two case studies, the aim was not to compare and contrast the two firms but to enrich the interpretation of the empirical material in support of the primary aim - to understand the ways in which processes of knowledge creation were sustained over time. The analyses presented in the previous four chapters has however, highlighted some common structural, cultural and social conditions that were fundamental to the organisational context. These appeared to facilitate knowledge creation and helped ultimately sustain processes of knowledge creation over time within both of the case study firms.

### **(i) Leadership behaviour with regard to profitability**

It is important, first, to note that leadership behaviour within the context of these expert consultancies was not fundamentally directed towards profit maximisation and optimising efficiency. While both Founders were anxious to avoid financial problems, their overall approach was directed towards profit satisficing, rather than profit maximisation (Simon,

1957). The nature of the work process, i.e. knowledge creation, meant that there was a perpetual tension between efficiency and uncertainty. In order to manage this tension, the leaders of these firms adopted profit satisficing behaviour. That is, they aimed to achieve and maintain sufficient profit levels to support the organisational conditions they considered promoted and supported knowledge creation.

There may have been a number of reasons why profit satisficing, rather than profit maximising behaviour was found. For example, the Founder at Paramount may have wanted to keep profits to a minimum in order to minimise corporation tax. However, it is more likely that these individuals valued knowledge creation criteria more greatly than efficiency criteria and profit maximisation. There have been relatively few empirical accounts of the way in which KIFs operate and organise over time (c.f. Alvesson, 1995) and little attention has been given to the financial implications of managing knowledge intensive work. This research has shown that substantial financial resources are required to promote and sustain knowledge creation and has highlighted that profit maximisation may not be a feasible goal to strive for in expert consultancies. Existing literature on consultancies has tended to focus on the 'Big 5' and other large consultancies that, given their phenomenal growth over the last decade are currently enjoying a prolonged period of sustained and increased profitability (Morrison, 1998). It is assumed that profit maximisation is a key driver in these consultancies. However, scant attention has been paid to the financial implications of knowledge work. This research suggests a conceptual contribution to the literature on knowledge work and management of knowledge intensive firms in terms of the possible compromises leaders of such firms need to make with regard to overall levels of profitability.

(ii) Lack of professional management and low formalisation

From the analyses it was demonstrated that both firms were led and managed by individuals whose identity was firmly grounded in their professional expertise (scientific

and legal) rather than in professional management which is more focused on efficiency criteria and strategy. Importantly, profit motives were de-emphasised. The leaders of both firms spent considerably more time working in projects and marketing than on 'managing' the business. This leadership approach is characteristic of an adhocracy (Mintzberg, 1973). However, particularly in the case of Universal, where the firm had experienced substantial growth, this approach is not one predicted in the literature on organisational life-cycles (Greiner, 1972). This literature suggests that following the start-up period firms enter a period of crisis in control and direction that drives the introduction of systems and professional management. However in the case of Universal and Paramount, these conditions were largely absent. Both firms, whilst still promoting modest growth were well established and relatively secure in their markets. However, conscious efforts had been made by the leaders of these firms to avoid formalisation and not to professionalise management. This was highlighted by the lack of a career structure within both firms. In addition, whilst Paramount were making their first attempts to introduce a formal strategy during the period of the research, it was evident that Universal after 11 years, still lacked a coherent strategic approach to the management of its workforce. These expert consultancies then adopted a loose approach to the overall management of the firm, which is not predicted by the literature at this stage in each firm's development. This suggests that growth in KIFs may not mirror that depicted in the literature. Indeed, if they were perhaps to grow in ways predicted by life-cycle models, then they might in fact be unable to sustain knowledge creation for reasons addressed below. This concurs with research conducted by Lowendahl (1997) to some extent that highlighted that a strategy of modest, slow growth was more appropriate within problem-solving type PSFs. This research then has highlighted the importance of distinguishing KIFs from more traditional organisational forms when studying organisational development over time.

The attempts made to avoid increasing formalisation and direct control by senior organisational members, even in Universal, were conscious and deliberate, in order to attract and retain an expert workforce. Consultants working at Universal and Paramount were experts in scientific and professional disciplines and combined these skills with the ability to market their expertise to clients. They exemplified the archetype symbolic analyst (Reich, 1991). More importantly, because of their high levels of expertise and skills they were highly marketable not only across sectors within their respective disciplines but also across the consultancy sector more generally. Leaders of both the case study firms were then acutely aware that they had to provide organisational conditions that would be considered highly attractive to such individuals characterised in the literature as 'gold collar' workers (Kelley, 1990). Efforts directed towards maintaining low levels of formalisation supports other research on the management of KIFs (Kunda, 1992; Alvesson, 1995) but also illustrates a fairly unique defining feature of the KIFs studied insofar as these firms lacked any sort of career structure.

### (iii) Characteristics of the recruitment and selection process

Despite a potentially limited labour pool, both firms did not experience any problems recruiting or retaining consultants. The firms had international reputations for the work they conducted and the people they employed. Experts were attracted to these firms because of their reputations and more fundamentally because they would be afforded the opportunity to work with other like-minded experts. Both firms could afford to be highly selective then and the selection process relied to a significant degree upon peer assessment of candidates. The selection process emphasised social fit because of the significant levels of inter-dependency that characterised project team work and the fundamental requirement to work co-operatively and collaboratively. The organisational literature emphasises a requirement to recruit a diverse workforce in order to stimulate processes of knowledge creation (Nonaka, 1994; Spender, 1998; Grant, 1996). Other literature more specifically

focused on knowledge workers and professionals (Kunda, 1992; Starbuck, 1992; Lowendahl, 1997; Bergström, 1995; 1997) emphasises that selection of such workers is often premised on management's assessment of candidate's social fit, highlighting a requirement for a significant degree of normative control within these organisational contexts. The approach adopted by both of the case study firms however, highlighted the significant involvement of peers (other consultants) in this assessment of social fit together with an emphasis on diversity and individuality, which has not been recognised in much of the previous literature on selection processes within KIFs. The involvement of peers in selection decisions was for two fundamental reasons.

High levels of interdependency from the outset, meant that it was important for as many consultants as possible to have the opportunity to make a subjective assessment of candidate's social fit. Consultants were aware that there existed an international expert labour pool of candidates eager for a selection opportunity. Consultants were therefore encouraged to be highly critical in their assessment of candidates, resulting in very high rejection rates by both firms. At Universal during the period of the research, 160 CVs were processed for each successful appointment. The most recent appointment made by Paramount during the research was from a pool of 280 candidates. An emphasis on high rejection rates throughout the selection process was a powerful cultural mechanism in both firms. High rejection rates served as a form of pre-entry normative control mechanism shaping successful candidates' expectations of the fundamental requirements of the organisation (i.e. the norms of behaviour with regard to project working such as trust and openness, if selected). In addition, the high rejection rates symbolically reinforced incumbent consultants' 'elite' organisational identity. Whilst Schein (1992) has highlighted the importance of recruitment and selection in articulating organisational culture to new recruits, its dual influence within expert consultancies on both candidates and consultants has not previously been emphasised.

The selection process also served as an important mechanism for establishing trust relations between parties, which was the basis of co-operative organisational relations. The selection process provided an organisational arena for the establishment of cognitive based or conditional trust (McAllister, 1995; Jones and George, 1998) in candidates by consultants. Cognitive based trust is the degree of trust that needs to exist for inter-action on project work to occur. Whilst literature on self-managed team working and co-operative behaviour in organisations has highlighted a need for the development of high trust relations grounded in cognitive based trust (cf. McAllister, 1995; Jones & George, 1998; Kramer, 1998), the pivotal role of the selection process in this has not previously been identified. As new recruits would be expected to work co-operatively and collaboratively from the outset in the case firms, it was important that peers had an opportunity to subjectively assess their trustworthiness with regard to knowledge sharing and co-operative behaviour prior to joining the firm.

The analyses of the case firms highlighted that both firms had managed to recruit a diverse workforce considered fundamental to processes of knowledge creation (Nonaka, 1994; Spender, 1998) that was perceived to share a limited set of normative values around free knowledge sharing but importantly, focused more on individuality. Thus the highly critical, subjective approach taken to selection characterised by peer assessment appeared to be an effective mechanism for managing the tension between the degree of diversity required to promote knowledge creation and the degree of homogeneity sought to foster co-operative behaviour. This balance in the workforce promoted organisational conditions characterised as requisite variety and considered crucial for processes of knowledge creation (Nonaka, 1994).

The recruitment and selection process within both the case firms could then be characterised as one which was inclusive, emphasising peer assessment, promoting a degree of normative control and reinforcing consultant's organisational identity. The

selection process was therefore important for sustaining processes of knowledge creation in so far as it served to promote and shape a diverse, expert workforce that could be trusted to fundamentally behave co-operatively and collaboratively. The importance of the selection process for regulating identity and promoting normative control within KIFs has received some research attention (Bergström, 1997) and the findings here support and extend this field of enquiry.

(v) Organisational conditions promoting high retention rates

It was very significant that leaders of both firms had managed to sustain very high retention rates in a sector characterised by high labour mobility. In part this could be attributable to the validity of the approach taken to recruitment and selection but was also more fundamentally attributable to the attraction the organisational environment held for consultants in terms of resources and levels of autonomy.

The stable expert workforce in both firms constituted an eclectic, broad knowledge base at the individual level, conflated with a collective knowledge base at the organisational level that had developed over time. The collective knowledge base served to promote communication generally within the firms and facilitated the integration of individual knowledge (tacit and explicit) during project team working.

Consultants in relational terms then were 'loyal' and chose to remain with the case study firms for two reasons. Firstly, the organisational context was generally resource rich and, secondly, the context was perceived as affording individuals considerable personal autonomy. When considering this first point, not only were ample tangible resources (finance and equipment) made available, consultants were also afforded time to be creative and innovative and they had access to significant knowledge resources (other consultants). Existing literature (Starbuck, 1992; Maister, 1993) has tended to emphasise the constraints imposed by time pressures within consultancy firms. This research has shown that within these expert consultancies, this was not the case and indeed time pressure was an important

attribute facilitating knowledge creation. This highlights the very generalist nature of much of the literature on consultants and consultancy work within existing literature.

Nonaka (1994) and other commentators (Spender, 1996, 1998; Grant, 1996a, 1996b) have highlighted the importance of a broad, collective body of knowledge for processes of knowledge creation. However, its importance to individual knowledge workers has not been addressed in the literature to date. Consultants recognised that constant interaction with other experts both within and outside of project work significantly enlarged and amplified their individual knowledge base. Consultants were provided with an environment characterised fundamentally by open sharing of knowledge that afforded them the opportunity to work with and, importantly, learn from other experts. Whilst the literature on knowledge workers and professionals has highlighted the need to provide autonomous working conditions, scant attention has been given to the considerable personal benefits of a knowledge intensive environment. Consultants at both firms were exposed to and had access to a rich, knowledge base which was mobilised during project working. An emphasis on transparency and knowledge sharing, unencumbered by few formal systems and bureaucracy meant that consultants were afforded sufficient time and opportunity to participate in a stimulating, learning environment. The case firms then not only provided conducive organisational conditions in which to work in terms of resources, they also provided highly attractive knowledge rich environments in which individuals could further develop their human capital. Existing research on engineers has shown that they often choose to join firms in order to have the opportunity to work with state-of-the-art technology (Whalley, 1986). Here this research has shown that this concept can be extended to include knowledge workers who choose to join a KIF for the opportunities it will provide to work with 'state of the art' people. Over time, these contextual conditions became self-reinforcing as the firms grew and more experts joined the firms. The resource

rich environment, populated by experts and characterised by expertise, then significantly contributed to the high retention rates that existed within each of the case firms.

In order to address the second point regarding the way in which perceptions of considerable personal autonomy contributed to high retention rates, the cultural analysis needs to be developed further and the focus of attention needs to turn to the role of more deeply embedded organisational phenomena in sustaining processes of knowledge creation. These will be addressed in the following section (8.3).

### **8.2.1 A summary of the structural conditions sustaining processes of knowledge creation**

To summarise then these findings have shown that some rather distinctive organisational conditions played a significant role in sustaining knowledge creation processes. Some of these organisational attributes have not been considered substantively in the existing literature on knowledge work and modes of organising within KIFs and contribute hopefully to conceptual development in this field. These distinctive characteristics of the case study firms were

- profit satisficing behaviour on the part of the leaders of these firms
- the conscious rejection of professional management and the perpetuation of low levels of formalisation over time characterised by a lack of career structure
- the development of an approach to recruitment and selection that emphasised peer involvement in assessment of social fit and trustworthiness
- the active perpetuation of a workforce characterised by significant diversity and minimal homogeneity
- the active promotion and perpetuation of a resource rich (including time and expertise) environment.

### **8.3 The significance and role of organisational culture in sustaining processes of knowledge creation**

It has been highlighted that both firms operated somewhere on a continuum between an adhocracy and a professional bureaucracy (Mintzberg, 1983). Locating these firms on a continuum is problematic however, insofar as both firms had features of both which were juxtaposed. Thus their position on the continuum was not stable. In some respects Universal also resembled the simple structure in that the administrative support was very small, there was limited differentiation between workers and hierarchy was minimal. However, co-ordination was not achieved by supervision, thus the firm differed from the simple structure in this fundamental respect. Problems in locating the firms in terms of configuration, highlights the inherent tension that exists between autonomy and control within KIFs. Adhocracies emphasise autonomy and other configurations acknowledge control. This has been recognised in the literature on KIFs and addressed in a number of ways. Some commentators and researchers (cf. Sveiby and Lloyd, 1987; Wikström & Normann, 1994; Lowendahl, 1997) discuss the need to provide autonomous working conditions for knowledge workers or professionals and highlight that organisational culture has a role to play. However these commentators do not consider substantively what the implications of this might be operationally in terms of control and efficiency. Other researchers have highlighted the importance of cultural forms of control rather than bureaucratic or market control within these types of firm (cf. Kanter, 1983; Williams & Ouchi, 1983; Hedberg, 1990, Kunda, 1992). However, this literature posits a direct causal relationship between strong cultures, normative control and the development of responsible or practical autonomy that can be trusted to operate in the interests of the firm (Friedman, 1977; Willmott, 1993). Managerial attempts to promote normative control have been criticised from a moral and ethical standpoint (Willmott, 1993). Kunda (1992) supports this view and suggests that organisational members are perpetually enacting normative

control in terms of self-discipline, and 'doing what is right', in order to secure some sense of self. Yet, ultimately this is a self-defeating exercise as it reproduces and reinforces the cultural environment it seeks to correct. In addition, the limits of normative control have also been highlighted. Research has shown that workers often enact normative behaviours instrumentally without necessarily internalising normative values (Knights & Willmott, 1987).

The analysis developed from this research, questions the basis of normative control in KIFs and suggests that the relationship between normative control and the development of practical autonomy may be far more complex than that described in the literature to date. This is considered in the following section where contributions to the literature and conceptual developments are proposed.

#### **8.4 The role of cultural ambiguity, quasi-normative control and dependable autonomy in sustaining processes of knowledge creation**

Some research, (Kunda, 1992; Alvesson, 1995) has highlighted that KIFs tend not only to rely on normative control to promote practical autonomy but supplement it with additional forms of bureaucratic control. These researchers then, focusing on the way in which KIFs actually organise operationally, refer to the managerial rhetoric associated with many normative mechanisms considered to promote perceptions of autonomy. For example, Alvesson (1995) highlighted the way management at Enator de-emphasised structure, in order to foster perceptions of egalitarianism and autonomy, yet a simple hierarchical structure did exist.

Importantly, in this research it was found that in both firms (a) normative mechanisms aimed at promoting perceptions of autonomy did exist, thus any rhetoric around these mechanisms was insubstantial and (b) whilst consultants perceived themselves to be autonomous, they were also well aware of the direct controls imposed upon them. This second point represents a paradox that will be addressed here and highlights the complex

normative conditions shaping individuals' perceptions of autonomy within these firms. In order to explore the normative conditions that existed here, consideration needs to be given to some of the cultural characteristics of the two firms. First, corporate or organisational identity is considered and then the extent to which normative control was promoted is considered.

(i) Corporate identity

The leaders of each firm directed considerable efforts towards promoting an elite corporate identity to promote consultants' identification with these organisations. Corporate identity was premised on elitism and status. For example, in Universal, high rejection rates, exceptional working facilities and resources and the success of spin-out companies all reinforced perceptions of the firm as one of the 'best' places to work if you were a scientist. At Paramount, hugely expensive firm-wide events, the physical location of the firm and the calibre of the client base (including two of the top five global consultancies) also served to promote a strong elitist corporate identity that consultants identified with. An emphasis on developing a distinctive corporate culture was also noted by Alvesson (1995) in his study of another KIF – Enator. Thus individuals in both firms considered the firms to have strong cultures. In addition however, the active promotion of an elite corporate identity also served to reinforce individuals' subjective identity as scientists (at Universal) and professionals (at Paramount). Organisational members in both firms, with their exceptional levels of expertise perceived their sense of self, their subjectivity, to be rooted in their scientific and professional expertise. This is not untypical in professional firms (Grey, 1994). Efforts directed at shaping a prestigious corporate identity then actively served also to reinforce and enhance individuals' perception of themselves as members of the scientific and professional elite.

(ii) Normative control

It was also apparent that leaders were concerned to develop and promote normative control around a very limited, distinctive set of values and beliefs associated with the importance of knowledge sharing, co-operation and collaboration. The emphasis placed on the importance of inter-disciplinary working at Universal and the actions and behaviour of the Founder at Paramount all reinforced these values in organisational members, such that they did appear to be shared by consultants across each of the firms. Importantly however, and contrary to other research that has specifically focused on the use of normative control in the management of knowledge workers (Kunda, 1992), the leaders of the case firms did not actively attempt to monopolise the management of meaning, intent upon creating 'a total institution of sorts' (Kunda, 1992:224). Instead, individuality and autonomy appeared to be genuinely highly valued and encouraged. A strong norm of behaviour in the case firms were such that there were actually very few 'norms'. It was not a case of just 'do what is right' as at Tech (Kunda, 1992), where 'right' is what is right for the organisation. At Universal and Paramount consultants were free to act in ways that might be considered to be *against* the interests of the firm. For example, taking extended holidays that might impact significantly on project working, occurred in both firms. At Universal one consultant belonged to a radical animal liberation group. His involvement with this group occasionally led to adverse publicity for the firm. However, significantly this was tolerated. Both in and outside of project working consultants were encouraged to be critical and questioning of others professional standpoints i.e. individuals' knowledge base. Willmott (1993) suggests that normative control attempts to eliminate pluralism and conflict of values. The fact then that critical contemplation and reflection were promoted in these environments highlights the very limited extent to which typical forms of normative control was actively sought and promoted in these firms.

Leaders of the case firms then did not attempt to shape and develop a strong, integrative culture that would provide normative control. Instead, efforts were limited to promoting a strong elite corporate identity in which cultural ambiguity was perpetuated.

Relatively little empirical research to date has focused on cultural ambiguity. Whilst it has been recognised as an inherent condition related to role in certain professions such as health workers (Meyerson, 1991), existing literature has tended to treat ambiguity as a temporary or ephemeral state in organisations, prevalent in young start-up firms. Thus much of the existing literature has assumed a conflation of weak and ambiguous. Over time, it is suggested that most organisational ambiguity is eradicated and a strong culture develops (Martin, 1992). As such, then, ambiguous cultures have been assumed to be weak cultures. The analysis in this research has demonstrated that strong ambiguous cultures can be perpetuated over time and these may be critical in promoting and sustaining creativity. Strong *and* ambiguous is not a dichotomy as suggested in existing literature (c.f. Peters and Waterman, 1982; Schein, 1985, 1992; Barley, 1991; Willmott, 1993). Universal and Paramount both had strong distinctive, corporate cultures premised on elitism and professionalism but that did not imply that there was a single dominant ideology, unambiguous, clear common goals and homogeneous values that were shared throughout these firms. Within these strong organisational cultures, ambiguity dominated and significantly shaped individual behaviour. This is perhaps an important conceptual and theoretical development within organisational culture research. The analysis of the cases highlighted many defining aspects of cultural ambiguity that existed within both firms and pertinent examples are provided in the following sub-section.

#### **8.4.1 Characteristics of organisational ambiguity**

McCaskey (1982) highlights 12 characteristics of organisational ambiguity and at least 6 of these were inherent aspects of the organisational environment within the case study firms.

(1) The nature of project work itself was ambiguous in that client problems were generally

unclear and shifting. Project work was therefore unpredictable and uncertain. (2)

Consultants displayed and were encouraged to have different value orientations. (3)

Significantly, many situations had inconsistent features such that contradictions and paradoxes were manifest. For example, the leaders of both firms de-emphasised formal structure in order to emphasise egalitarianism. However, dynamic, informal hierarchical structures existed within both firms (Paramount to a lesser, but still observable extent).

These structures reflected shifting power positions below the apex, premised on individuals' marketing and scientific/professional expertise. Because of their dynamic nature these informal structures were subject to multiple interpretation over time even by the same individuals. (4) Participation in decision-making was fluid and democratic, consensual approaches to decision making were promoted and often did occur. The strategy formulation and decision making process at Paramount was a prime example of a democratic approach to organising. However, leaders of both firms regularly made autocratic decisions that often had widespread implications, in direct contradiction to democratic processes. (5) Goals were often conflicting. Consultants at Universal for example, were faced with the need to achieve PRTs, contribute to DRTs and fundamentally still attempt to work in an inter-disciplinary manner. At Paramount the demanding expectations of professional clients that had to be met because 'the client is King', meant that consultants sometimes had to compromise when developing innovative solutions under significant time pressures. (6) Symbolism was often relied upon to define situations. For example, the way office space was organised in both firms was supposed to symbolically reflect egalitarianism within each of the firms. Yet the Founder at Universal commanded a prime position and at Paramount, research staff perceived their allocation of space to reflect their low status within the firm.

Some of these characteristics are also representative of the action, symbolic and ideological ambiguity that Martin (1992) refers to when defining the fragmentation

perspective. For example, ideological ambiguity was demonstrated by the conflicting goals consultants were subject to within each of the case firms. All of these features of the firms then highlight the significant ambiguity inherent in the organisational environments.

However, one of the most significant aspects of the cultural ambiguity was the way in which direct monitoring of consultants did occur but paradoxically under-performance was tolerated and accommodated. This is particularly significant when interpreting the way in which perceptions of autonomy were fostered and promoted over time by strong, ambiguous organisational cultures.

In the following section the relationship between cultural ambiguity and individuals' perceptions of organisational reality is discussed in order to further explore the significance of ambiguity for sustaining processes of knowledge creation.

#### **8.4.2 The significance of cultural ambiguity**

Within the context of expert consultancies the inherent tension between autonomy and control is amplified as clients demand inventive and innovative solutions and individuals engage in work activities which are highly inter-dependent, complex, uncertain, and relatively unobservable. An emphasis on developing strong normative control could possibly overcome some of the problems associated with the high levels of personal autonomy required to facilitate knowledge creation but this approach is unlikely to promote or stimulate creative, innovative behaviour more generally. For example, research has shown that pressures to conform to organisational norms can inhibit creative and innovative behaviour in consultancies (Starbuck, 1992). Kanter (1988) also refers to the need to provide organisational conditions that allow for the 'wild' side of innovation and Wikström & Normann (1994) talk about freedom being essential if new knowledge is to be created in organisations. These observations highlight the way in which an emphasis on strong normative control within organisations could well constrain individual's propensity to be creative and innovative. Rather than strong normative control, it was cultural

ambiguity within both of the case firms that primarily managed the tension between autonomy and control. Ambiguity permeated and dominated both case firms and served to provide an environment in which consultants could accommodate the monitoring and control that occurred.

It has been shown in the analysis that the behaviour of the leaders of Universal and Paramount reinforced to other organisational members the importance of self-management in support of processes of knowledge creation, in ways that would contribute rather than be detrimental to the firm. Leadership behaviour within these organisational contexts was by example. In both firms, senior organisational members combined overall management of the firm with active involvement in project working and marketing to clients. Notably leadership behaviour was not grounded in forms of professional management but in expertise.

Significantly what actually constituted organisational efficiency within these contexts was ambiguous. In both firms efficiency was only estimated and monitored in very broad terms. In both firms, projections were made at the start of the financial year with regard to revenue and profit, however performance monitoring was loose and under-performance was tolerated. The leaders of each of these firms recognised that processes of knowledge creation were intrinsically uncertain and unpredictable and critically they appeared to value creativity and innovation criteria above efficiency criteria. Under performance was seen almost as an inevitable aspect of work, rather than as a weakness. As a conscious and deliberate strategy this might be considered high risk. What is significant about the case firms is that this approach had worked well over time. Despite a short loss making period at Universal (a matter of months), both firms had grown modestly over time in terms of revenue and profits. Leaders of both firms had to however, acknowledge a basic requirement for some degree of firm-wide management, in support of some notion of organisational efficiency. Thus, some informal routines and more formalised systems had

been introduced in each of the firms. These were fundamentally a cultural anathema to dominant organisational values premised on autonomy, individualism and egalitarianism. Importantly however, cultural ambiguity 'camouflaged' the introduction, development and implications of these routines and systems.

The leaders of these firms recognised that individual performance with regard to processes of knowledge creation could only be 'managed' by individuals themselves. Self-management was not promoted by normative control however, as in Kunda's study of Tech (Kunda, 1992). Instead, self-management was promoted by cultural ambiguity that fostered and promoted a form of quasi-normative control that generated and sustained dependable autonomy. Both 'quasi-normative control' and 'dependable' (rather than responsible or practical) autonomy are new concepts derived inductively from the analysis of the cases and may contribute to theory development in the field of organisational culture. The precise meaning of these terms is explained in the following sub-section.

#### **8.4.3 Defining 'quasi-normative control' and 'dependable autonomy'**

Quasi-normative control is seen here as a distinctive form of cultural control, which differs from that discussed to date in the literature because, rather than dictating what form self-direction should take (Kunda, 1992; Willmott, 1993) it allows the individual relative freedom to determine the actual form self-direction should take. Quasi-normative control is premised on mutually shared (leaders and consultants) expectations of the behaviours associated with individuals' normative identity as 'consultant' *and* individuals' own expectations of the behaviours associated with their subjective identity - their sense of self - primarily as a 'scientist' or 'professional'. As such then quasi-normative control would appear to be distinctive to expert consultancies.

Individuals normative identity as 'consultant' was acknowledged and recognised by individuals on entering these firms. Experts working in the case study firms chose to work in consultancy firms. These individuals had considerable latitude regarding their careers

because of their skills and expertise and had consciously decided to become 'consultants'. There were therefore mutually shared expectations and beliefs regarding the demands of and values and beliefs associated with the consultancy role, including the importance of clients, marketing to clients, perpetuating client relationships and working in ways that were profitable for the organisation. At the same time, to be considered worthy of appointment, these individuals typically had rare expertise and professional skills that had developed over time such that their sense of self or model of self-knowledge was firmly grounded in their scientific expertise or professional skills. Individuals often referred to themselves then as 'scientists' and 'technologists' at Universal and 'lawyers' at Paramount and perceived their subjective identity to be rooted in their expertise or profession. Grey (1994) and Alvesson (1998) have suggested that subjective identities grounded in professionalism are not uncommon in law and accounting firms and, I would argue here, are prevalent in expert consultancies.

Quasi-normative control differs from traditional notions of normative control in four fundamental respects. Firstly it relies on the perpetuation of a strong ambiguous organisational culture, of which internally there are multiple, subjective interpretations. In contrast normative control relies on the active promotion of a strong unambiguous culture around within which there is general consensus as to what constitutes organisational reality. Secondly, quasi-normative control is characterised by a very limited but distinctive set of normative values focused on the work process (e.g. the importance of knowledge sharing), rather than a wide-ranging set of values that aim to secure emotional as well as organisational control (Willmott, 1993). Thirdly, by definition ambiguity does not lend itself to active cultural engineering by the leaders of firms or it would cease to be ambiguous. Thus quasi-normative control, unlike normative control, cannot be actively managed by the leaders of firms. Fourthly, quasi-normative control serves to sustain and

regulate individuals' *dual* identities (normative and subjective). Whereas normative control aims to subsume and conflate subjective identity within dominant corporate ideology. This research suggests that the importance of the concept of quasi-normative control for sustaining knowledge creation cannot be underestimated. Typical forms of normative control constrain critical self-reflection and subjectivity, promoting homogeneous normative behaviour (Willmott, 1993). Fundamentally then normative control constrains creative behaviour because it limits individuals' freedom and capacity to act autonomously. Quasi-normative control, however, promotes subjectivity reinforcing individuals' freedom and capacity to act autonomously, fostering heterogeneous behaviour and promoting an environment that is conducive to knowledge creation. It was not in the interests of the leaders of these firms, then, to attempt to resolve the cultural ambiguity. It needs to be acknowledged, however, that at the same time, the leaders of these firms did actively attempt to maintain and sustain a cultural environment that encouraged consultants to internalise a very limited set of normative values associated with their identity as 'consultant' which generated and promoted dependable autonomy. The term 'dependable' rather than practical or responsible (Friedman, 1977) is used here to emphasise that within this particular organisational context, firms are almost entirely *dependent* for their survival (even in the short term) on sustaining a stable, expert workforce. The term dependable autonomy then denotes a form of behaviour whereby consultants are motivated to be 'loyal' to the firm and co-operate and share their expertise and knowledge with others in ways that facilitate knowledge creation. In addition dependable autonomy, grounded in individuals normative identity as 'consultant' could be relied upon to promote successful knowledge creation and organisational efficiency more generally.

#### **8.4.3 Examples of quasi-normative control**

Quasi-normative control is demonstrated in the following two examples. Consultants self-managed their time and were afforded the freedom to choose their hours of work and how

much holiday they took. This was not rhetoric and was reflective of the high levels of personal autonomy afforded to individuals. In both firms consultants worked very diverse hours and took varying lengths of holiday, in some cases months at a time. However, professional and expert 'norms' and expectations shaped individual behaviour to meet project deadlines. This meant that consultants regularly worked very long hours. Deadlines tended to be driven by clients at Paramount but were largely self-generated by the teams themselves at Universal. Regardless of the source of deadlines, individuals' subjective, professional expert identity self-disciplined them to expend enormous efforts to satisfy project requirements within pre-determined time scales. Thus at any given time, some consultants would be working intensely on projects whilst others, taking advantage of the autonomy they were afforded chose to take extended holidays. These individuals were not then victims of their own creation (Willmott, 1993) or slaves to the company (Kunda, 1992).

It was also noticeable that despite a lack of career structure within both of these firms, competition between individuals did exist and was wholly self-generated. Normative expectations meant that consultants were expected to co-operate and collaborate with others and complete projects to the satisfaction of the client. Significantly, a lack of career structure meant that there were really no further expectations or demands placed on consultants. Despite this, individuals' subjective professional and expert norms meant that high standards of performance were self-imposed. Thus individuals were constantly striving to develop inventions and innovative solutions which would command respect internally with other consultants. This behaviour both facilitated processes of knowledge creation and reinforced individual's subjective professional and expert identities. Behaving in this way then individuals could continue to perceive themselves to be at least as good as the rest of the expert workforce.

These examples highlight the way in which quasi- normative control shaped behaviour in ways that facilitated and sustained processes of knowledge creation.

A strong ambiguous culture in both firms was found to reduce the tension that existed between perpetuating conditions that would afford individuals freedom to experiment and be creative and the fundamental requirement to sustain a level of efficiency and generate satisficing levels of profitability. Whilst I have argued that this form of normative control differed fundamentally from that previously described in the literature, it is also interesting to note the mutually reinforcing nature of the relationship between organisational culture and individual behaviour. Cultural ambiguity characterised by multiple interpretations of reality actually shaped behaviour which served to enact and perpetuate ambiguity. Kunda (1992) also noted these dynamics in his study of Tech referring to the process as a vicious circle of control. Whilst acknowledging then that within any capitalist society, the interests of labour are always subordinated to the interests of capital (Marx, 1976), it is interesting to note that, in contrast to engineers at Tech, consultants did not express cynicism about the strong culture and conditions were such that they were not subject to burnout (Kunda, 1992). Expert consultants are extremely valuable resources within capitalist society, arguably becoming more so with the emergence of a knowledge-based society (Drucker, 1993). Thus it was critical for the leaders of these firms to provide very good organisational conditions that shaped perceptions of autonomy but controlled the way in which that 'freedom' was enacted. In the following sub section, examples of multiple interpretations of reality are explored further.

#### **8.4.4 Multiple interpretations of reality**

Consultants within these expert consultancies 'naturally' held different views and values. These included differing views on the degree of control and autonomy organisational environments afforded. Hence, consultants differed in their perceptions regarding the controls imposed by the performance management system at Universal. At Paramount

there were differing views regarding the extent to which there was a democratic approach to organising. Perceptions were shaped by individuals subjective experience and reinforced by the multiple interpretations afforded to the cultural mechanisms that existed within both of the firms. For example, at Universal PRTs were considered by some consultants to reflect egalitarianism rather than control. Relatively young, inexperienced consultants however, found themselves under extreme (largely self-imposed) pressure to achieve these targets. On occasion even more experienced consultants found their particular expertise was not in demand within the internal market for knowledge and they too would be forced to acknowledge the pressures associated with achieving monthly PRTs. To these individuals then, PRTs were symbolic reinforcement of the controls that existed within the firm. Other more experienced consultants however, particularly those with scarce expertise and skills paid scant attention to PRTs for they consistently over-performed. These individuals perceived the performance management system to be purely functional, it was not perceived to be directing and shaping behaviour.

At Paramount, the monthly management meetings were considered by some consultants to reflect a genuinely democratic approach to organising. These forums were considered then to be an opportunity for everyone in the firm to discuss and debate policy decisions. When not in full agreement with the Founder, these individuals were prepared to debate issues with the Founder, even though his approach was often highly critical and scathing. Other individuals, less secure in their professional identity, found the Founder's highly critical approach threatened their sense of self and thus they perceived these meetings as reflecting autocratic control rather than the democratic process.

Individuals however, unsure whether their own perceptions were matched by others, rarely openly articulated their views regarding the degree of autonomy afforded to them or the degree of control that existed. Subjective identity was maintained and secured by being considered as good as the rest of the expert workforce and this was premised on

autonomous behaviour. To openly discuss and acknowledge control was an indication that the individual was perhaps failing to maintain professional, expert standards of work.

### **8.5 Coping with ambiguity – identity regulation**

Individuals act to reduce or eliminate dissonance caused by ambiguity (Festinger, 1957). It could be anticipated then that the highly formalised performance management system at Universal and the autocratic approach to leadership adopted by the Founder at Paramount, both of which emphasised direct control would promote significant dissonance within consultants. In order to cope with and reduce the dissonance then, individuals actively participated in sense-making in order to confirm their sense of self (Weick, 1995). That is, individuals were acutely aware of their dual identities as ‘consultant’ – their normative, collective identity and ‘expert/professional’ – their subjective identity. Individuals therefore relied upon switching between identities in order to reduce the dissonance caused by organisational ambiguity. They actively engaged in sense-making in order to cope with the ambiguity that existed. Whilst then consultants in both of the case firms perceived their *subjective* identities, their sense of self to be grounded in their particular area of expertise, when confronted with organisational conditions and situations which highlighted control rather than autonomy they were able to cognitively ‘switch’ and relate to their *normative* identity as a ‘consultant’. This cognitive switching is highlighted in the following statements that were made by consultants

“We all want to continue working on interesting projects with interesting people but despite some of the problems around DRTs, it’s worth remembering that we divisionalised to make the company profitable and it has been successful and we don’t want to throw it away”. (Universal consultant)

“It’s quite a unique environment, quite free fall which I enjoy but Alan is quite insistent on attempting to get some sort of a consistent approach, and I think he is right to do so, we need control and transparency in the process”. (Paramount Consultant)

Both of these quotes highlight the way individuals could cognitively switch from autonomous professional to 'consultant' instantaneously. Normative expectations highlighted a requirement to manage client relationships in such a way as to sell and successfully complete client (knowledge creation) projects, generating revenue for the firm. Any routines and systems that were introduced to monitor and direct 'consultants' behaviour were inextricably linked with these expectations and could thus be rationalised by individuals, reducing dissonance and making sense of the controls that existed. At the same time, there existed a myriad of organisational conditions that emphasised and reinforced notions of individuality and autonomy. These served to reinforce consultants' subjective identity as 'professionals' and 'experts'. These conditions then also shaped individual cognition in ways that reduced perceived dissonance.

Willmott (1993) drawing upon Orwell's concept of 'doublethink' asserts that reality control within organisations is shaped by corporate culture. Quoting from Orwell (1989:37-38), Willmott states 'Doublethink' afforded the individual the opportunity "to forget what it was necessary to forget, then to draw it back into memory again at the moment when it was needed, and then promptly to forget it again: and, above all, to apply the same process to the process itself. That was the subtlety: consciously to induce unconsciousness, and then, once again, to become unconscious of the act of hypnosis you had just performed" (Willmott, 1993: 545)

The ambiguous organisational culture then served to regulate and reinforce individuals' dual identities as 'consultant' and 'professional'. It was relatively unproblematic then for individuals to adopt the 'doublethink' process. Via a process of cognitive switching, individuals could simultaneously and unconsciously draw upon and regulate their dual identities in order to reduce the dissonance caused by aspects of the organisational environment that emphasised control.

### **8.5.1 Summarising the significance of culture and cultural ambiguity for sustaining processes of knowledge creation**

From a review of existing literature on knowledge work, Alvesson (1998) has highlighted the significance of identity regulation within KIFs, particularly in relation to the management of knowledge work. These findings support and develop this idea at a conceptual level. In both firms leaders focused attention on the development of an elite corporate identity which consultants identified strongly with because of the status attached to affiliation with each of the firms. Leaders did not have to rely on rhetoric here. These consultancies displayed some unique characteristics premised on their attempts to operate as adhocracies. Particularly novel or unusual aspects of the case firms included the ways in which consultants time was not directly monitored, client relationships were not jealously guarded, knowledge was relatively freely shared, ample resources were made available and career structures did not exist. Organisational conditions reinforced by external recognition and legitimation of the knowledge work conducted by both firms served to powerfully shape the corporate culture of the firms. Individuals then readily engaged with an elite organisational identity that also served to reinforce and regulate subjective identity as 'expert' or 'professional'.

The influence in this research of normative control on constructing and regulating identity was limited. The dominant organisational ideology in both firms emphasised the importance and value placed on knowledge sharing and integration. The leaders of both firms embodied this ideology in their own behaviour and consultants shared these values. Significantly however, it was quasi-normative control that primarily served to regulate identity and shape consultants normative behaviour. Quasi-normative control regulated individuals' identity as 'consultant', such that individuals were able to rationalise the controls imposed upon them. The symbolic power of cultural ambiguity averted resistance to those aspects of the organisational environment considered to be controlling. Hence,

individuals perceived the organisational environment to afford them significant autonomy. Thus a strong culture characterised by ambiguity was crucial in sustaining processes of knowledge creation. It shaped perceptions of autonomy motivating individuals to remain, in relative terms, 'loyal' to the case firms. It generated widespread dependable autonomy that could be trusted to self-manage in ways that ensured an acceptable level of efficiency. As such then culture, in particular cultural ambiguity, was crucial for sustaining processes of knowledge creation. Cultural ambiguity also 'camouflaged' the power relations that existed within each firm that potentially constrained processes of knowledge creation. These are considered in the following section.

### **8.6 The role of power in processes of knowledge creation**

It is evident from the analyses of the case study firms that despite espoused notions of egalitarianism and democracy, the leaders of each of the case firms were in fact extremely powerful. Their power was grounded in their ultimate hierarchical position and their considerable expertise. They rarely needed to use their power because, as discussed in the previous section, symbolic power (Kunda, 1992) or power of meaning (Lukes, 1974) ensured that individuals operated in the interests of the firm. However, when they did use their power, they operated autocratically and potentially constrained processes of knowledge creation. For example, the Founder of Universal by imposing a performance management system constrained inter-disciplinary project working. Inter-disciplinary working provided a broad, diverse knowledge base, characteristic of the requisite variety suggested by Nonaka (1994) as important for knowledge creation. However the introduction of DRTs motivated project leaders to only use experts within their own divisions in projects work, generating 'closure' or social control around the knowledge base available for knowledge creation. The social control and systematisation of knowledge is considered to be major barrier to innovation (Scarbrough, 1995). The introduction of the performance management system coincided with the imposition of

divisionalisation by the Founder. This also created problems. The greater market exposure of divisions allowed an informal hierarchy to develop in which those with scarce expertise and marketing expertise were able to dominate. Thus despite claims of egalitarianism, power inequalities existed and were utilised. Individual experts who were able to command network centrality which helped them to market their expertise, acquired considerable power (Ibarra, 1993). This increased dispersion of power threatened to undermine the collective expertise of project teams and articulation processes identified as crucial for knowledge creating companies (Nonaka, 1994).

Social control and systematisation of knowledge was also significant at Paramount. The Founder of Paramount used his power position to vet and often modify project work around contemporary strategic issues. Whilst he encouraged critical debate, referred to as 'creative abrasion' (Leonard and Sensiper, 1998), he would ultimately use his position power to shape the knowledge that had been created. His approach promoted by status inequalities inhibited rather than motivated individuals to share their knowledge willingly in this type of project work, serving to potentially constrain processes of knowledge creation. This finding supports other research that has highlighted the problems of self-censorship as a significant barrier to knowledge creation (Leonard and Sensiper, 1998). Power relations thus potentially constrained processes of knowledge creation by generating social closure, systematisation and self-censorship of knowledge. The functionalist literature on power (Dahl, 1957; Pfeffer, 1992) adopts a perspective that assumes it can be used "to get people to do things that they would not otherwise do" (Pfeffer, 1992:30). However, in this context power relations could not force people to be creative. By adopting a structuralist perspective however, it was evident from the analyses of the cases that power of meaning (Lukes, 1974) or symbolic power (Kunda, 1992) was crucial in facilitating and ultimately sustaining processes of knowledge creation. Symbolic power served to ameliorate the potential tensions caused by the informal hierarchy at Universal.

Across both firms it was symbolic power, the power of cultural ambiguity that regulated individuals' dual identities as 'consultant' and 'professional' or 'expert', ensuring that fundamentally individuals behaved in ways that facilitated knowledge creation. Symbolic power sustained the dynamic equilibrium that was required between the critical conditions necessary to sustain processes of knowledge creation (autonomy and freedom) and those that were perceived to potentially constrain processes of knowledge creation (control). Much of the literature to date on knowledge creation and innovation (Nonaka, 1994; Spender, 1996, 1998; Blackler, 1995, Amabile, 1998) largely ignores issues of power, obscuring and subsuming this important dimension within the broader issue of autonomy and control. Literature that has begun to explore issues of power and status in knowledge creation and innovation (Scarbrough, 1995, 1999; Leonard and Sensiper, 1998) has tended to assume power to have negative consequences, to be a barrier to knowledge creation. This research however, has demonstrated that the power of meaning or symbolic power was crucial to sustaining knowledge creation and thus its influence could be interpreted as positive. Acknowledging the potential constructive rather than destructive consequences of the influence of power in relation to knowledge creation is worthy of further attention in future research. It also highlights the importance of adopting a multi-dimensional perspective when considering the influence of power more generally on individual and collective behaviour within organisations.

The final issue to be considered in the analysis of the case study firms was the role of trust in processes of knowledge creation. This is explored in the following section.

### **8.7 The role of trust in processes of knowledge creation**

The analyses of the case firms highlighted that manifestations of high trust relations between consultants served fundamentally to facilitate processes of knowledge creation.

The literature suggests that affect-based or unconditional trust (McAllister, 1995; Jones and George, 1998) are manifest in certain types of behaviour such as a willingness to share

knowledge, help-seeking and altruistic (needs based monitoring of others) behaviour.

These behaviours were all prevalent (to a greater or lesser degree) within both of the case firms. The effect of the types of behaviours on processes of knowledge creation was to render more efficient the process i.e. to facilitate knowledge search and knowledge acquisition at the individual and group level. However, it is important to recognise that these behaviours did not appear to be processual outcomes of the development of trust relations as suggested in the literature. Rather these behaviours were expected behavioural norms within the KIFs studied. The very high levels of inter-dependency in the knowledge work occurring in the case study firms appeared to necessitate these types of behaviours. The selection process appeared to be the vehicle through which assessments were made of candidates potential to behave in ways indicative of high trust and also the shaping of candidates' expectations regarding the types of behaviours that would be required. This suggests that within certain organisational contexts such as KIFs there is a normative assumption that high trust relations will exist from the outset. This is a departure from most of the existing literature on the development of trust relations where it is argued that time and repeated interaction with other parties is necessary for the development of high trust relations (McAllister, 1999; Jones and George, 1998). There is increasing interest in the construct of trust in organisations (Kramer and Tyler, 1996), particularly across organisations with the emergence of 'network' forms of organisation. This research however, suggests that the development of trust relations within different organisational contexts is also an area worthy of further research

Jones and George (1998) refer to unconditional trust as promoting the development of collective knowledge considered to be particularly important in processes of knowledge creation (Spender, 1998). The analyses of the cases demonstrated that by engaging in help seeking behaviour and needs based monitoring of others, over time consultants in both firms were constantly engaged in interactions with others both in and outside of project

working. This constant interaction then promoted the development of collective knowledge across the firms. High levels of interaction on this basis also provided organisational conditions characterised by redundancy and requisite variety (Nonaka, 1994). Consultants were exposed to multiple sources of knowledge that were not all necessarily important to current project working but this exposure promoted internalisation and externalisation modes of knowledge creation, considered fundamental to organisational knowledge creation (Nonaka, 1994). The importance of high trust relations to processes of knowledge creation has not been fundamentally addressed in the literature to date. Whilst high trust relations may not be fundamental to *sustaining* processes of knowledge creation, it appeared here that they promoted and fostered *efficient* knowledge creation in the case firms, reducing the time spent on knowledge search and acquisition. Trust was not the main focus of this research but even this limited analysis makes some interesting suggestions, which a more in-depth study could explore.

It was also clear from the analysis of Universal that high trust relations throughout the firm were beginning to be eroded as powerful divisional managers influenced consultant behaviour. Consultants were encouraged to freely share their expertise and knowledge with other consultants in their own division. However, when expertise and knowledge was required by project leaders in other divisions, then consultants would generally be motivated to negotiate a price for that knowledge. Whilst the erosion of trust relations was not all encompassing because strong personal networks did still exist within the firm which sustained a degree of altruistic and help-seeking behaviour, barriers to knowledge creation were developing. An unwillingness to freely share individual knowledge with others (Leonard and Sensiper, 1998) and conscious avoidance of help-seeking behaviour (Starbuck, 1992) are the most obvious examples. At Universal as trust across the firm began to be eroded, these barriers were becoming apparent, potentially constraining efficient knowledge integration required during processes of knowledge creation.

The dynamics of the process whereby high trust relations began to be eroded suggest the inter-relationships and interactions between culture, power and trust which previous research on knowledge creation has not explored. The behaviour of divisional managers effectively inhibiting consultants from freely sharing their knowledge with others outside their own division was fundamentally shaped by quasi-normative control and their position power enabled them to significantly influence consultants' behaviour within their own division which had led to the gradual erosion of trust relations. Whilst this research has focused on observable manifestations of trust relations, rather than exploring any cognitive dimensions, it has shown (albeit in a limited way) the importance of high trust relations for the development of collective knowledge, redundancy and requisite variety, all considered to be crucial for processes of knowledge creation.

The influence of different dimensions of power and quasi-normative control however has been shown to be more complex. Quasi-normative control and the power imbued in divisional managers characterised by power of resources and power of processes (Lukes, 1974) were shown to have influenced behaviour such that high trust relations were beginning to be eroded at Universal. The analysis then has shown the importance of addressing the inter-relationships between culture, power and trust when conducting research on organisational processes of knowledge creation. These organisational phenomena need to be studied in combination when conducting research on such complex organisational activities as knowledge creation. The importance of these inter-relationships and interaction is fundamentally not addressed in the structuralist perspective on knowledge creation (c.f. Nonaka, 1994; Spender, 1996, 1998; Blackler, 1995; Scarbrough, 1995) or organisational innovation literature generally (Amabile, 1988; Kanter, 1988; Leonard and Sensiper, 1998). Whilst several of these commentators suggest that the focus should be on activities of knowing, emphasising the processual dimension of knowledge creation, the significance of the inter-relationships and inter-action between culture, power

and trust in knowledge creation has not thus far been addressed centrally in the existing literature. In addition and importantly, the findings have shown that the role of symbolic power (Kunda, 1992) or power of meaning (Lukes, 1974) within KIFs is complex and is worthy of further attention in future research. In this research here, it has been demonstrated that it was crucial for sustaining knowledge creation processes over time.

## **8.8 Conclusions**

This research has presented a retrospective analysis of the ways in which processes of knowledge creation were sustained over time within the case firms. The literature review in Chapter 2 highlighted the paucity of substantive, empirical accounts of knowledge work and organising within KIFs which this research has sought to address. The preceding analysis has highlighted the context dependency of knowledge creation and the complex interplay and interaction of structural aspects of the firms, in combination with social and cultural conditions that together served to both facilitate and constrain processes of knowledge creation within the case study firms. As such then this empirical research has adopted a process perspective on knowledge creation and focused attention on those critical organisational conditions which play a role in shaping activities of knowing (Blackler, 1995).

These firms were able to sustain knowledge creation because contextual conditions and internal mode of organising were such that a stable, diverse expert workforce was maintained over time. This workforce constituted the necessary resources required to sustain processes of knowledge creation. Quasi-normative control was found to regulate individuals' dual identity as 'consultant' and 'expert' or 'professional' ensuring that the expert workforce generally behaved in a manner that was characterised by dependable autonomy. Dependable autonomy was critical in such an unpredictable and uncertain environment. It served to promote behaviour such that project working was conducted in a manner that was efficient for the firm.

The literature on organisational culture (Martin, 1992) alluded to the possibility that ambiguity may be crucial for organisational invention and innovation, suggesting that an organisational context characterised by ambiguity allowed individuals the freedom to be creative. This research however, has shown how ambiguous organisational conditions actually controlled the manner in which that 'freedom' was enacted. Exploring the inter-relationships and inter-action between these conditions suggested conceptual developments in a number of areas.

Firstly, it has been highlighted that attention needs to be given to the role of the wider institutional context in shaping organisational processes of knowledge creation. Secondly a number of distinctive organisational features were found to facilitate processes of knowledge creation. These findings extend the existing literature on modes of organising within KIFs and depart from the existing literature on organisational life-cycles. This highlights a need to distinguish between different types of KIF and to consider KIFs as distinctive, contemporary organisational forms, that are worthy of far more empirical research within a society that is becoming increasingly knowledge based (Drucker, 1993). As such then, this research hopefully makes a useful and novel contribution to the field of knowledge work and the management of knowledge workers.

The major conceptual developments proposed here were in the field of organisational culture. The limits of the potential for normative control sustaining processes of knowledge creation within KIFs were established. It was found that strong cultures characterised by ambiguity, promoted quasi-normative control and dependable autonomy and these conditions were crucial for sustaining processes of knowledge creation. The major findings in relation to the role of power and trust in processes of knowledge creation have also highlighted the importance of considering these organisational phenomena in combination with culture, in order to develop a process perspective on knowledge creation within KIFs.

It needs to be emphasised however, based on the findings from Universal Consulting that expert consultancies characterised by cultural ambiguity may be intrinsically vulnerable and this mode of organising may in fact be difficult to sustain over time. The changes that were occurring at Universal during the period of the research, such as the emergence of a latent power structure and the gradual erosion of firm-wide high trust relations, were considered by both organisational members and myself to be seriously threatening the fragile, dynamic equilibrium that appeared to exist between autonomy and control. The organisational ambiguity fostered an environment in which powerful individuals could promote the development of (explicit and implicit) routines, rules and norms governing behaviour and would not be questioned. Because the impact of formal mechanisms were not openly discussed and were in fact subject to multiple interpretations, there were no grounds to argue. In addition, because power was dispersed, many individuals could potentially introduce new control mechanisms where they perceived it was in their interests to do so. These control mechanisms could potentially constrain processes of knowledge creation. This highlights then the very fragile nature of this distinctive mode of organising and throws into question the sustainability in the longer term of expert consultancies that are organised in this way.

It is also important to consider the limitations of this research and relationship with other research on KIFs. It was emphasised in Chapter 3 that the research approach adopted characterised by critical interpretivism does not strive to interpret social phenomena in a manner that can be characterised as objective reality. Instead this approach aims to interpret social phenomena in a constructivist manner that provides for well verified 'agreement' with the "underlying social reality (empirical grounding)" (Alvesson, 1995:44). As such then the conceptual developments proposed from this research have their grounding only in the two case study firms. The generalisability of these findings to other KIFs and other organisational contexts cannot be estimated and, importantly, is not

sought when adopting this particular research approach. The strengths however of this research are that whilst two quite different expert consultancies were studied (in terms of size, the nature of the work that was conducted, mode of organising etc.), the findings contributed to theoretical developments that were well supported by the empirical material from both cases. It is also important to acknowledge that this research concurs with and extends other research on KIFs (Kunda, 1992; Alvesson, 1995) that has highlighted the importance of organisational culture and normative control in firms with strong adhocratic features. The way in which this served to regulate individuals dual identities was, however, perhaps a particularly distinctive feature of expert consultancies.

A further limitation of this research was an absence of the 'client' and significant 'others' outside the organisational boundary. Most research on consultants and consultancy work to date has focused heavily on the importance of the client and consultant/client relationships (Clark, 1995). It is acknowledged here that clients probably did contribute to processes of knowledge creation. However, without access to clients directly and reliant only on project documentation, I was not able to explore their role in the process. Evidently, client relationships were important and clients shared some knowledge and information about their firms with consultants, which contributed to processes of knowledge creation.

However, consultant / client interaction was not observed directly, the absence of which limits this research. In addition, although consultants were asked about external sources of knowledge, they tended to de-emphasise the potential importance of external sources in their work. This is somewhat contrary to research that has demonstrated the importance of external networks in processes of knowledge creation (Tushman, 1979). Without access to external sources the importance of external networks could not therefore be explored. My observations however, suggest that most of the knowledge creation process happened within the consultancies.

Having highlighted the limitations of the research approach, it is worth commenting on the relevance of these findings to other KIFs and PSFs. The consultancy sector is heterogeneous and over 40 000 small and medium sized consultancies were estimated to exist in the UK in 1998 (Morrison, 1998). A proportion of these could be termed 'expert consultancies'. In the Cambridge area alone, from my own observations and interviews I am aware of at least four other consultancies that display characteristics of an expert consultancy such as employing an expert workforce, an emphasis on low formalisation etc. Thus some of the findings here may have resonance to some of these firms. Given the importance of the regulation of dual identities in this research, these findings may also have resonance for some PSFs. Grey (1994) has shown in his research the way in which accountancy firms appear to shape and promote a subjective identity tied to a professional career. In particular PSF contexts then, there may exist a degree of organisational ambiguity that serves to regulate identity in a similar way.

In order to extend this area of research, particularly with regard to the complex role of organisational culture in sustaining processes of knowledge creation, it would be pertinent to conduct further longitudinal case studies in expert consultancies that have existed longer than the two studied in this research. This would be a particularly useful future area of enquiry because the changes that were occurring at Universal highlighted the potential problems of sustaining an environment that is perceived as highly autonomous over time. It would be particularly relevant then to study expert consultancies that have perhaps existed for 15-20 years and consider the ways in which they organise and how mode of organising may have changed over time. The problem here however, is that KIFs are a relatively contemporary phenomena and as such tend to be young companies. It may then be particularly problematic to even identify such firms, let alone gain access to them. Problems of research access often arise. However, arguably it is even more difficult to gain access to KIFs, particularly those focused on creativity. Leaders of these firms are typically

and to some extent understandably wary of allowing access. Their workforce is valuable and expensive and time spent talking to researchers is time that might be spent more productively. In addition the aim of this type of research is to gain insight and understanding into what constitutes their major source of competition – their ability to sustain creativity. It is perhaps unsurprising then that the leaders of such firms may be reluctant to offer access to researchers. It is therefore perhaps not surprising that there is a paucity of empirical studies of KIFs and actually serves to illustrate one of the potential strengths of the research presented here.

Other areas of future research could include further work that explores the issues of power relations and the role of trust in KIFs. Existing research on KIFs de-emphasises power relations generally and has tended only to focus on symbolic power and the management of meaning. However power relations exist in all organisational contexts and their influence on mode of organising, particularly in KIFs is worthy of further consideration. This research highlighted the importance of high trust relations, facilitating processes of knowledge creation. Importantly however, manifestations of behaviour characteristic of high trust relations were a prerequisite rather than a processual outcome of project team working. Whilst there is a burgeoning interest in trust currently within the literature (Kramer and Tyler, 1996) particularly across organisations, current research has not considered the way trust relations develop within KIFs characterised by complex tasks and extremely high levels of inter-dependency. This issue then is also worthy of consideration in future research. Finally, the role of intermediate institutions, particularly networks in organisational processes of knowledge creation has not been explored substantively in the literature to date. This research has shown that the meso level of analysis should be an important direction for future research if we are to further our understanding of the way in which intermediate institutions and networks serve to shape and validate claims to knowledge not only across disciplines and professions but also within organisations.

Finally, in conclusion, this research has demonstrated the importance of acknowledging both the context dependency of knowledge creation and the role of cultural and social conditions in sustaining knowledge creation over time.

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