STRATEGIC PROCESSES, UNCERTAINTY AND INNOVATION: CASE STUDY IN BIOTECH INDUSTRY

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Abstract

By applying ethnographic approach in the context of the small innovative biotechnological company this research offers new ways to conceptualise strategic processes and their relations to organisational culture, order and successful continuation of the organisation into the future. Adopting a process informed methodology and building on the concepts of *emergent strategy* and *strategic story* this thesis offers a new conceptual framework which allows making sense of *why* and *how* certain initiatives and interpretations in a given organisational context would enjoy commitment of organisational members and key resource holders while others would fail.

By separating patterns of organisational life into patterns of *organisational culture* and *organisational order* the suggested framework identifies both sources of new interpretations of organisational future and limitations for such interpretations. The thesis also introduces a new concept of *strategic story making* which includes processes of *strategy practice* as opposed to strategic story telling which focuses exclusively on verbal communication. It then employs the criterion of the *effective story*: a dynamic mix of credibility and defamiliarisation, to analyse emerging organisational strategy.

The newly developed framework is applied to strategising in the biotechnological company and suggests that higher degrees of perceived uncertainty provide more freedom for formal strategists in enacting new desirable futures for their organisation. It provides a way for making sense of the unique nature of innovation as strategic processes which resolve limiting inconsistencies between organisational order and organisational culture when new and significantly different interpretations of organisational futures are offered. The thesis draws conclusion about inability of any strategy to eliminate uncertainty in general but it allows substituting one set of critical

uncertainties with others which are more tolerated at the time.

The thesis draws together and successfully relates together in one conceptual framework a number of very influential and powerful concepts in the field of strategy process research such as culture, order, structuration, innovation, uncertainty, strategic story, strategy practice, organisational context and environment. In doing so it answers a continuous call in academic papers for consolidation and a need to position various researches and conceptualisations in relation to each other.

Chapter 1: Introduction

1.1 Introduction

Traditional system-based approaches to strategy centred on the separation of strategy formation and implementation have been increasingly criticised for their failure to acknowledge the often irrational, spontaneous, random and overall "messy" character of much of successful strategizing (Pettigrew, 1992; Van de Ven 1992; Chakravarthy and Doz, 1992; Watson, 1994). Thus the focus of many scientific inquiries in the field has shifted from seeking answers to the question of *what* strategy is or should be to making sense about *why* managers do what they do and *how* they go about doing it. This paper advocates the processual view in strategy research and employs it in a two year ethnographic case study research programme in the biotech industry. It aims to provide deeper understanding and develop theorising about micro processes of strategy making in organisations with a particular focus on the concepts of uncertainty and innovation.

1.2 Crises of system-based views of strategy

There is growing evidence that managers, especially those perceived to be successful, are not preoccupied with what traditional system-based, contingency theories of strategy claim they should be doing (Peters and Waterman, 1982; Watson 1994). Inquiries into practices of organisations, both successful and not, operating in what are perceived to be highly uncertain environments suggest that it is not clear if they 'have' any strategies at all (Eisenhardt, 2001). If managers fail as a result of not following normative and prescriptive system-based strategy models, they are in danger of being blamed for inability to address emerging issues, should they succeed they are praised for innovation or having luck. My own previous research (Andriyanenko, 1999) into decision making rationalities of senior and middle managers of two large European companies revealed managers confessions that traditional approaches are often used to post hoc rationalise decisions made in more 'messy', intuitive, often spontaneous or otherwise irrational, or not fully rational ways.

The domain of strategic management emerged to address the issue of the long term successful continuation of organisations into the future, as opposed to operational efficiency in everyday operations. The earliest use of the term 'strategy' as a military metaphor in business studies could be traced back to the 1920 America (Whittington, 2001). The metaphor suggests a somewhat prearranged order which allows winning in the marketplace. Such an attempt at structuring managerial thinking and placing emphasis on long term survival of a company as opposed to purely operational efficiency has been influential in the development of management thought and modern corporations.

Strategy is concerned with organisational futures and therefore its conceptualisation and theorising also reflect assumptions of strategy researchers about the future. If one

believes the future is by-and-large a continuation of previous trends, or rules or trends in rules, then forecasting it for a reasonable horizon can be performed with an acceptable degree of accuracy. From this perspective the one who makes a better forecast wins, as one can come up with a plan, take a position, secure resources or move in the direction to take advantage of the events unfolding in future. This is precisely what traditional, system-based views of strategy argue for. There are of course challenges to identify relevant trends and methods of their extrapolation. To help to resolve such difficulties, traditional approaches to strategy place high value on statistical assessment of markets, trends, consumer preferences etc. and also on the techniques which allow these to be projected into coming months, years and in some sectors decades.

One major issue that system-based approaches to strategy fail to address is the perpetually changing situation in which organisations find themselves, as well as an assumption about path dependency: i.e. what has happened at an earlier point in time will affect later sequences and outcomes, does not necessarily assume either fixed or predetermined phases or stages of inevitable outcomes (Pettigrew, 1992:8). In its static assumptions, the field of strategic management research has been guilty of 'imposing a historical pattern of reality such that unless the world stays very stable, this pattern may not be appropriate in the future' (Hurst, 1986:15; Mir and Watson, 2000).

Dynamics are difficult to study. Social science in general and much of strategic management writing in particular has developed quite comfortably as an exercise in comparative statistics, which is dominated by static metaphors of contingency thinking. Static states or cross-sectional analyses are privileged over the complex processes that lead to understanding the dynamics of change across time and space (Pettigrew, Woodman and Cameron, 2001). Although potentially helpful when applied under conditions perceived to be stable, such theories are unhelpful in other situations.

Examples of issues which remain outside the scope are the interplay and interrelation between what we identify as current trends and factors in the environment, how managers' own actions and thoughts influence the actions and thoughts of others.

The task of strategy researchers is not to predict exactly the future state of any organisation. To attempt that is to attempt to predict the path of a jumping squirrel in a large forest: it is neither necessary nor possible. Instead what we need to understand are those events that give direction and meaning to the stream of organisational moments. (Weick, 2001:28)

Strategy research should be more concerned with 'how actors place their bets on the future, investing and innovating in a manner that determines their own fates individually and collectively shapes the nature of the world we live in' (Pettigrew, Thomas and Whittington, 2002:476). A dominant question for scholars of organisational studies, how do people produce and acquire a sense of order that allows them to co-ordinate their actions in ways that have mutual relevance? (Weick, 2001:26). Research focussing exclusively on strategy content, that does not explore the why and how of strategy, provides a snap-shot, a black and white photograph to use Hirsch's metaphor, which was further elaborated by Chakravarthy and Doz (1992), as opposed to the full colour cinematography of organisational life and strategy making.

1.3 The potential of processual perspective in strategy research

One useful way of thinking about managerial activity, including the activity of strategizing, can be the one giving justice not only to interaction of macro constructs, but also to micro processes, which underpin these interactions and constructions. Despite its rich contributions to our understanding of certain macro constructs, the work on individual administrative systems is unlikely to inform us on how strategy process shapes strategy content (Chakravarthy and Doz, 1992:12).

The above discussion does not deny the value of traditional, system-based concepts of strategy overall. They are often very useful if a social system under study is relatively closed and possesses characteristics attributed to the state of stability. The main argument is that such models have serious limitation when applied to much of the context of a modern business world. It is acknowledged by various authors, and especially by critics of traditional normative or prescriptive strategy models that such constructs are not very helpful when managers face a higher degree of perceived uncertainty about their environments and their organisations (Mintzberg, 1994; Van de Ven, 1992). Traditional concepts of strategy have increasingly been criticised for their built-in inflexibility, their failure to be sensitive to fast changes in the environment and for insufficiently recognising the extent of bounded rationality (Mintzberg, 1994; Watson, 1994).

To address this issue one would need a view of strategy which corresponds not to the product of managers' thinking, which they later go on to implement, but a view which does justice to involvement of managers in strategy making. A processual way of thinking about organisations and managers has the potential to help in understanding these issues and has been emerging over some decades (Watson, 2003). In 1979

Schnendel and Hofer initiated a move away from the traditional perspective towards a 'processual' view (Pettigrew, 1992). This concentrated on the details of how organisational outcomes come about. In the field of strategy research this led to the development of a concept of strategy as something which is fully or partially emergent rather then wholly deliberate or 'planned' and to the recognition of the fact that the extent to which a strategy is 'emergent' rather than 'planned' will depend on the degree of uncertainty faced by the strategists (Mintzberg, 1996).

Process research focusing on micro processes in and among organisations and how those processes relate to macro topics should help to offset the current dominance of macro perspectives in organisational analysis (Weick, 2001). The role of emotions, values, beliefs, political and other interests in the development of organisational life and organisational outcomes have been largely overlooked by traditional perspectives in favour of postulating some general mechanisms and rules that presumably determine the success of organisation's actions. Strategy process research among other things aims to make sense how managers as both individuals and social actors shape up organisational development (Watson, 2001).

There are multiple advantages of addressing the complexity of strategy making by viewing it from a processual perspective as opposed to concentrating on its content. One of the attractions of adopting a processual perspective on strategy is the opportunity to overcome the simplification of system-oriented tradition in treating organisations and other social constructs as entities capable of autonomous acting and thinking. Although this is also often the case with managers when they engage in discussions about their environments, no inherent rationale forces a researcher to adopt the concepts employed in the situations under exploration. On the contrary, doing so would mean ignoring the

metaphoric and symbolic character of organisational life in which particular realities are enacted and the effect they have (Smircich and Stubbart, 1985).

The macro is not a distinct existential level that emerges from micro events. Instead, the macro is constructed and pursued within micro interaction. Micro interaction is constrained by representations of macro entities alleged to exist as a distinct layer of social reality. But aside from their effects as mediated through representations that are treated as if they were real, macro 'entities' have no separate existential effects (Weick, 2001:19). Organisational participants, and especially those involved in the enactment of strategy, can be seen as continuously striving to understand what is going on, activating themselves and mobilising their resources in order to 'move the world' in desired directions (Weick, 1995; Smircich and Stubbart, 1985). Under this perspective organisations can be seen as collections of people trying to make sense of what is happening around them (Weick, 2001:5).

The processual view has the potential to address problems which system-based approaches usually struggle with, such as a problem of implementation. The segregation of strategy formation and implementation, which is in the tradition of system-centred approaches, implies that managers understand or at least should understand their environment to be successful in strategy implementation. This view provides little if any insight into how managers go about making sense of their environment, their organisation and themselves in this environment. The political, behavioural, relational aspects of strategy making are almost totally underrepresented. Even the leading scholars of what we regard as traditional models of strategy such as Porter (see discussion in: Rugman and Hodgetts, 2000) come to conclude that distinction between formulation and implementation brings more confusion rather than clarity to the discussion of strategy. In the processual view of strategy the distinction between

strategy formation and implementation does not make sense as they are inseparable both in time and in form. Strategy is a meaning generating activity concerned with integrating and interpreting information. As such it is abstracted from specific tactics, policies, or operational procedures while being intimately concerned with relating these into an overall pattern (Westley, 1990: 342).

The processual perspective broadens our understanding of strategy in that it looks at how strategies are shaped, why and how certain actions are taken. Strategy process research deals with the interactions of individuals, groups, and/or organisational units, within or between firms (Hirsch, 1991 as in Chakravarthy and Doz, 1992:6).

Unfortunately, strategy process research often takes a reductionist approach to studying organisational dynamics by isolating certain processes from a broader context of actions and decisions. Most theorising and empirical studies on strategy processes have focused on discrete decisions, like major investment decisions, which are easily identifiable and appear to be of strategic importance (Chakravarthy and White, 2002:183). It may be a visible step but not the first, not last, and possibly not even the most significant. In order to understand strategy processes more fully, research must focus not only upon a single decision but also on the patterns of decisions and actions that accumulate over time into strategy. A casualty of an atemporal organisational analysis may be the limited number of process studies of organisational change that offer a holistic and dynamic analysis of change.

Strategy process research enables one to look at strategy making in its organisational and broader social context, allowing observation of patterns which emerge over time from the daily activity of strategists. Focussing on the process allows gaining insight into what managers do, as opposed to what they might or should be doing. Using again

the metaphor of a still photograph to represent contingent theories of strategy, process research is concerned with *why* the things we see on a picture are there and *how* they got there. In that sense the process is more than a category of concepts which relate to individual and collective actions, it is what Van de Ven (1992:170) defines as a *sequence* of events or activities that describe how things change over time. Process thus is also about relationships between actions and other actions which together form context of both. Whittington (2001) chooses to label this approach *strategy practice* research, to stress the need to look beyond the stream of separate actions and also paying attention to 'hum-drum routines and rhythms' (ibid:14) by which strategy is continuously maintained and hold together. Others like Watson (2001; 2003) name this a *process-relational* perspective to stress the embedding of these processes in a multiplicity of relations within organisational and broader social context of organisational participants.

Detailed work is useful to help avoid overly simplistic assumptions about the strategy process or its boundaries, and the misuse of simple dependent variables that may have little to do with the process (Chakravarthy and Doz, 1992:6). Context is not just a stimulus environment but a nested arrangement of structures and processes where the subjective interpretations of actors perceiving, learning and remembering help shape processes. Thus strategy processes are both constrained by features of context such as tradition and technological commitments and also shape contexts by for example perceiving or altering technological strategies or corporate cultures (Pettigrew, 1992A: 10)

Effective strategy process research would neither theorise nor model in the abstract. Neither would it observe and record events in a theoretical vacuum. It relies on disciplines and theories to provide refutable hypotheses, and analyses actual processes

to enrich, refute, or bound these theories (Chakravarthy and Doz, 1992:9). The specific details are difficult to generalise across time and organisations. However, in these concrete details, others can more easily locate relevant analogies. In this sense, the language of the circumscribed theory can have greater use-value than the highly general and abstract offering (Gergen and Thatchenkery, 1998:32). To understand how a change occurred requires a story that narrates the sequence of events that unfolds as a strategy changes over time (Van de Ven, 1992:170).

The challenge of current strategy research is to make sense of managers' sensemaking and how it transforms into actions which form a pattern leading to the long-term survival of an organisation. The significance of processual strategy research and how it needs to develop is probably best summarised by Pettigrew (1992). He concludes that the central questions are about the description, analysis and explanation of recurrent patterns in the process of strategy management, together with the exploration of why, when and how policy outcomes are shaped by features of policy processes and contexts, with special focus on action and context. These broad questions can profitably be linked to the dynamic analysis of processes of decision-making, change, competitiveness, market creation, internationalisation, business strategy and technology, and the role, conduct and performance of managerial elite in firms and societies (Watson, 2003).

In a way, what the field of strategy research needs are stories of how strategists tell their stories and how they go about enacting what they enact and with what effect. The approach to strategy as storytelling will be developed in later chapters.

1.4 Process informed perspective and the uncertainty theme in strategy research

The value and relevance of the processual perspective is particularly high in situations where 'formal', in a sense of system-related, thinking is problematic due to higher levels of perceived uncertainty and ambiguity. The use of the system-based approach to address issues of ever increasing perceived uncertainty in making strategic decisions often results in more complex theories of strategic choices which, as argued above, take more factors into consideration. Increasing complexity of models, however, does not make it easier to cope with uncertainty. It simply results in new uncertainties and ambiguities relating to new variables. In stable markets, managers can rely on complicated strategies built on detailed predictions of the future. 'But in complicated, fast-moving markets where significant growth and wealth creation can occur, unpredictability reigns. It makes sense to follow the lead of entrepreneurs and underdogs…' (Eisenhardt, 2001:116).

Organisations resemble a puzzling terrain because they lend themselves to multiple, conflicting interpretations, all of which are plausible. There are multiple realities at work within organisations, all of them the product of social exchanges between organisational members (Weick 2001; Gergen and Thatchenkery, 1996). Equivocality is more easily observable in the context where individuals feel uncertain and ambiguous about their environment. When there are no criteria to judge the plausibility of interpretations, multiple often contradictory explanations blossom. System-centred thinking is instrumental only if equivocality is reduced to a manageable number of comparable interpretations. In a situation where 'right' questions let alone answers are unknown no system would be appropriate, as there would be no criteria of such appropriateness. Equivocal situations become more stable when definitions are imposed and one among many patterns in the flow of reality is isolated (Weick: 2001, 12). A

processual perspective can be used to gain insight into processes which lead to the emergence of a particular pattern from an 'organisational frenzy'. Organisational story making should receive special attention, as a key aspect of stories is their ability to reduce uncertainty, a critical asset that can enable the success of nascent entrepreneurial ventures (Lounsbury and Glynn, 2001:549)

There is agreement among organisational and management scientists about high and ever increasing perceived complexity and uncertainty of today's world. Uncertainty is endemic and chronic in today's organisations (Becker, 2000:411). The conditions experienced by many organisations today as they have to deal with "a more complex, less stable and less understood world than that described by standard theories of organisational choice" (March and Olsen, 1979:21). Among the reasons for it are the ever increasing availability of data and information overflow associated with it; the fast pace of technological change which speeds up many aspects of our life; globalisation and vast scale of enterprises and projects and many others.

Developing the processual view of organisational life and strategy making under conditions of high perceived uncertainty would therefore not only contribute to the current body of knowledge, but would be welcomed by practising managers. This would also address one of the challenges that strategy research is facing is to become more relevant to practice (Chakravarthy and Doz, 1992:9). A claim which is more than a decade old but still has not lost its entire relevancy.

1.5 The potential of a process informed perspective in dealing with the innovation theme in strategy research

The successful performance of managers and organisations under conditions of high uncertainty affected by a fast pace of change is often linked to the ability of successful innovation. In a world where markets, products, technologies, competitors, regulations, and even entire societies change very rapidly, continuous innovation and knowledge that enables such innovation have become important sources of sustainable advantage (Nonaka, Toyama and Byosiere, 2001)

Organisational innovation has received an extensive treatment in organisational studies. In their review of the innovation literature, Tornatzky et al (1983) pointed out that while many studies have examined the antecedents to or consequences of innovation, very few have directly examined how and why innovations emerge, develop, grow, or terminate over time. The research which focuses on a single event or a set of discrete episodes somehow separate from the immediate and more recent antecedents that give those events form, meaning, and substance, not only tends to treat innovations as if they had a clear beginning and a clear end but also often fails to provide understanding of processes through which innovations are created (Pettigrew, 1987:655).

Since the 1980s researchers have gradually revised the assumptions and research methods guiding their investigation of innovation. There is a growing acceptance of the social character of innovation, especially among those adopting a processual view of strategy. Van de Ven (1986) conceptualises innovation as a social effort 'among people who become sufficiently committed to their ideas to transform them into good currency'. This influence stretches further than simple allocation or withdrawal of resources into one or another designated areas or projects, as the system based approach might suggest. If innovation is conceptualised as a social process, then strategists also

play additional symbolic and interpretative roles in it. Managers enact contexts in which organisational members make sense of what is feasible, useful, desirable and appropriate, thus influencing the direction and character of innovation projects.

A significant body of research on innovation process has been attempting to understand which aspects of senior managers' context, such as education, age, gender, team dynamics and climate, influence the way innovating develops in organisations (see Chapter 2 for discussion). However, processes through which organisational strategists go about shaping and enacting particular contexts for innovation and use innovation discourse in strategic processes have yet to receive their share of attention.

1.6 The research opportunity

While there is an acceptance that conditions of increased uncertainty and pressure to innovate are becoming increasingly common characteristics of an organisation's environment, the review of literature made in the next chapter suggests there are few studies which successfully make sense of strategic processes in such situations. It is possible to identify a number of reasons of why this is so.

It is argued by many in the field that organisational processes and strategic processes among them cannot be studied without relating them to the context (Pettigrew, 1992; Chakravarthy and Doz, 1992; Van de Ven, 1992; Mintzberg and Waters, 1992). Rich contextual descriptions and corresponding theorising can only be possible by someone closely involved with the situation. If the purpose of a study is to understand how to manage the formulation or implementation of an organisational strategy, it will be necessary for researchers to place themselves in a manager's temporal and contextual frames of references. The major focus of the study would entail conducting real-time observations of the events and activities in strategy development and without knowing *a priori* the outcomes of these events and activities (Van de Ven, 1992:181). This remains a challenge for researchers. Among the most significant challenges are those relating to getting access to organisations' strategizing activities. In many instances these are very sensitive and possibly even intimate issues for an organisation, which very few would want to be exposed especially if these could be labelled as unsuccessful. Access difficulties have been and remain a source of constraint on studies of elites (Pettigrew, 1992:164).

Moreover, the questions that drive the strategy process are more properly answered through longitudinal studies, rather than cross sectional studies and demand detailed, comparative and longitudinal data covering long periods of time (Pettigrew, 1992;

Chakravarthy and Doz, 1992). The longer we stay with an emergent process and the further back we go to disentangle its origins, the more we can identify continuities (Pettigrew, 1987:649).

Time becomes another factor which makes processual research on strategy challenging. Unlike other approaches where a process of inquiry can be discrete and focused on certain stages in an organisation's history, looking at micro-processes requires the researcher to be present in the context of organisation relatively continuously over a prolonged period of time. Links between multiple levels of context can only be established by exposing actions and recurrent pattern in the processes under investigation over years and some times decades (Pettigrew, 1992: 10).It is not surprising then, that the body of knowledge developed under such an approach has been growing relatively slowly. Transformational change processes, because of their complexity and scope, have seldom been researched comprehensively with the detailed attention and rigour (Chakravarthy and Doz, 1992:9).

This leads to another important reason behind the present project – an opportunity to undertake it, a set of conditions which can be interpreted as suitable and favourable for strategy process research. Existence of a parallel project in which I was involved as an associate with one of the UK leading biotech companies in its field made the research possible.

The role of an associate meant a number of desirable research conditions. It was a full time, year- round and extending over an eighteen month engagement period. I was employed by the company to work on what was broadly defined as a marketing function. My position also meant I was exposed to and involved in everyday activities of the company including daily interactions with formal strategists and other internal

and external organisational constituencies. The associate's role also implied that this affiliation was designed to be beneficial for all parties from the very start and thus, facilitated more intensive involvement in many aspects of the organisation's activities, which could have been problematic. Upon my joining, the company's management expressed intention 'to scale things up' and 'to make it more commercial', which could be interpreted as a desire for organisational transformation.

The company under study can be characterised as one of the most innovating organisations in its sector in the region. This was explicitly and numerously acknowledged by the government bodies, pharmaceutical companies, industry rivals, customers and management of the firm.

The context of an R&D oriented organisation in the biotech sector is well suited to the present research. Perhaps, nowhere is the face of uncertainty so sharply in relief as surrounding new technologies (Becker, 2000:411). The biotechnology industry is often regarded as one of the most dynamic and unpredictable. Companies are subject to especially high levels of uncertainty at every stage of their lives, from technology and product development, to introducing products to the market place and dealing with the consequences of such actions. The biotechnology sector acts for pharmaceutical organisations as an external source of innovation and new developments and thus also taking on all the risks and uncertainties associated with such activities. Servicing the needs of the pharmaceutical industry means the time lag between the initial idea and its realisation is often significantly longer than in other industries, in part because of the large body of state and industry regulation. This creates additional uncertainty for biotechnological organisations as the outcomes of their actions are less immediate.

Biotechnology is one of the fastest growing sectors of modern economy, but literature

research to date suggests that, relative to other claimed intensive innovating sectors such as E-commerce or computer technology, it has been under researched.

The next chapter of this thesis presents the discussion of the existing literature on strategy process research with particular focus on concepts and theories which could provide frames of references for the present research. Chapter 3 deals with the issues of choice of methods and concepts coherent with the adopted methodology. It will also provide the discussion and argumentation for the new suggested conceptual framework which would be used to analyse organisational activities in the coming chapters. The analyses of organisational activities and processes are structured into a number of themes such as innovation, environment and organisation, sense of direction and discussed in chapters 4 and 5. Chapter 6 will draw conclusions and suggest areas and directions for further research.

The thesis in general presents a discussion and analysis and theorisation about processes of strategy making with a particular attention given to the organisational story making and interplay of uncertainty and innovation discourses. The agreement with the company made it possible for an ethnographic style of research to be adopted. Ethnography, more than any other method, draws attention to meanings and the processes through which the members of particular worlds make those worlds meaningful to themselves and others (Watson, 1994:6). The choice of methods will be further elaborated in chapter 3.

Chapter 2: Strategy process research literature: concepts, themes and major studies

2.1 Introduction

There is not much agreement about the nature of strategy. The anonymous author in *The Economist* (1993:106) observes: 'the consultants and theorists jostling to advise business cannot even agree on the most basic of all questions: what, precisely, is a corporate strategy'. In his book on crafting strategy, Markides (1999:vii) admits from the first pages: 'We simply do not know what strategy is or how to develop a good one'.

The modernist system-based approach to strategy and managing which has dominated the research for over half a century has been extensively criticised for enforcing too many over simplistic and rational models and metaphors on complex organisational life. The challenges are coming mainly from what can be broadly categorised as behavioural sciences and they question the claims of 'truths' that are made on the basis of rational, objective and evident in the research (Watson: 2001).

The general direction that the opposition to the system based approach has and is taking suggests management and strategy can more usefully be understood by thinking in terms of *how* and *why* of strategy, rather than trying to answer *what* it is or what it should be. The phenomena of strategy, managing, organisation and organising posed in these questions are more conveniently addressed when they are conceptualised as having continuity and being embedded in context, rather than outcomes of fairly discrete steps performed in isolation by the capable ones. Process informed research thus should not be seen as denying results of traditional approaches to strategy. It, among other things, aims to make sense of how managers go about using, ignoring or

modifying the results and ideas the management and strategy research hands them.

In the chapter 1 the argument was put forward for developing a process informed approach to strategy research rather than a system based approach. The chapter also discussed the benefits of applying it when dealing with themes of innovation, uncertainty and context. This chapter will deal predominantly with process informed literature and research on strategy. It will revisit the same themes touched upon in the first chapter but looking at the ways they have been developing *within* strategy process research. The aim of this chapter is not to give an overview of the whole field of strategy research or even strategy process research, but to identify and critically reflect on key studies, which could provide terms of references and conceptual contributions to the present research. Another aim is to position this research within the body of existing work and suggest how it can expand knowledge in strategy process research. In presenting the background literature the attention will be focused primarily on concepts of organisation and strategy which centre on process. This is done to avoid another repetition of differences between system and process based approaches touched upon in the chapter 1.

The study of strategy and organisational change has attracted scholars from a number of academic disciplines ranging from economics and mathematics to psychology and sociology. The adverse effect of this variety is that these different bodies of literature until recently did not, explicitly at least, talk to one another (Pettigrew 1985:3). Broad inquiries into process informed strategy research are relatively complicated for a number of reasons. Although many authors operate within the same or similar set of words (I specifically avoid the word *terms* here not to prompt similarity of meanings) these are often very different concepts. This has been acknowledged by Van de Ven (1992) in his discussion of the state of strategy process research. Therefore in many

cases when talking about a particular study the description of the whole conceptual framework would have to be presented in detail beyond shared terminology.

Another difficulty, which stems from the first one, is in structuring available literature within a singular frame of references and vocabulary. On one hand the failure to do so might produce unrelated descriptions of various pieces of research. On the other hand forcing the whole variety of existing approaches into a singular schema of 'shared' concepts would involve force fitting one set of concepts into another and thus compromising sensemaking of the original research in favour of the re-conceptualised one.

Those attempting classifications (Mintzberg, 1998; Whittington 2001) end up talking about how loose their categories are. Mintzberg distinguishes between various 'schools' based on prevailing metaphors thus leaving aside significant differences between interpretations of these metaphors.

Whittington (2001) offers his set of generic approaches to strategy positioning them along two dimensions: plural profit maximising vs. singular, and deliberate outcome of strategy process vs. emergent (Whittington, 2001:2). He believes any researcher would have to make his/her choices between these assumptions. However any such classifications should be treated with care as an arbitrary structuring done for specific purpose. By positioning all approaches along two axes of a two-by-two matrix Whittington (2001) imposes choice available within matrix on theories often otherwise unconcerned with such choices. Whittington himself acknowledges that the four generic approaches contain a variety of more particular perspectives on strategy, each differently positioned along the axis, some of which may overlap the generic ones.

Generally, while comparing any two pieces of strategy process research in pairs is a

manageable task, coming up with a reasonable number of common criteria to classify all of them is a big challenge at least at the moment. One way of dealing with multiple approaches and conceptualisations within process strategy research attempted in this chapter is to look at how successfully various studies meet the demands of process informed thinking about strategy. This will allow possible gaps and areas for further investigation to surface. At the end of the chapter conclusions will be made about areas needing further research.

It is possible to say that the number of studies which can be broadly categorised as process oriented has grown significantly in the recent decade. The topics range from advocating the processual approach among other perspectives, to theoretical and conceptual innovations and empirical studies and analysis. Primary processual research however, has not enjoyed as much attention and commitment as other approaches, mainly due to problems of access and significant time required to conduct process informed research. The number of studies that are contextual, longitudinal and first hand accounts is still very small. Therefore an examination of the few major works that do fall into this category is of particular value.

In order to address all of the above issues this chapter examines a number of major pieces of research which use primary longitudinal data and claim to be concerned with process and context of strategy and strategizing. Also authors of these large empirical enquiries into strategy processes from a processual perspective go into depth to position their research within a broader context of literature and to make terms of reference explicit. Although these are requirements for any well argued piece of work, writers on strategy and strategic processes have additional reasons for following these lines of presentation. This is yet another rationale to discuss such works in detail within their conceptual frameworks with cross references to others where believed appropriate.

Other research contributions are discussed in groups employing secondary data and others more concerned with theorising about organisational life and strategy process. These are made sense of in terms of arguments and concepts that shaped thinking about the present research.

The three major pieces of work which will be discussed in detail for the reasons mentioned above are Pettigrew's (1985) study of ICI, Smith, Child and Rowlinson's (1990) research on Cadbury (1990) and Watson's (1994) study of ZTC Ryland.

Pettigrew's (1985) work on ICI is probably one of the most heavily cited process informed primary strategy research. Initially planned as a study of specialist based attempts to create changes in organisational culture and structure, its limitations and contributions, it progressed to research a "more inclusive process, the long term processes of strategic decision-making and change in ICI in the differing social, economic and political context of 1960-1983" (ibid:p2). The work was positioned to offset, the then dominant and still dominating tradition of prescriptive and normative approach to change research, which views change as an isolated event. "Research on change continues... to focus on change episodes, and more likely *a* change episode, rather than the processual dynamics of change" (ibid:p10).

Pettigrew's (1985) ICI study is important in many ways. It was one of the first if not the first primary first hand study to be informed by concepts of emerging strategy developed by Mintzberg (1979; Mintzberg and Waters, 1982). Pettigrew (1985) also described and made sense of micro processes of cultural and political interactions and how through them organisational change was constructed. One of the analytical conclusions of his study was that theoretically sound and practically useful research on strategic change should involve the continuous interplay between ideas about the

context of change, the process of change, and the content of change, together with skill in regulating.

Another attempt at a longitudinal empirical study on decision making and strategy was made by Smith, Child and Rowlinson on Cadbury (1990). In the introductory chapter they describe their work as "an interpretation of these questions through an in-depth, contextual analysis of Cadbury Ltd in its historical setting, its industrial sector, and the power relations within management and between management and organised workers" (ibid:2). The book is said to be concerned "with historical reconstruction of strategic ideas, tracing the paths of strategies, policies and individuals or 'key' actors through the course of work organisation at Cadbury Ltd as it was create over a twenty-year period" (ibid:3).

The first edition of Watson's *In Search of Management* was published in 1994, but nevertheless it is still one of the most recent process informed primary longitudinal research. This work is critical of the line of thinking about managers and management manifested by Peters and Waterman (1982) about importance of strong cultures. Watson developed a theory to address the issues of *why* and *how* strong cultures are important (Watson, 1994:22).

For every manager the strategy-making process starts with a fundamental strategic choice: which theoretical picture of human activity and environment fits most closely with his or her own view of the world, his or her personal 'action theory' (Argyris, 1977).

2.2 To what extent are existing analyses processual?

The literature on processual analysis often implies very diverse concepts of process itself. The choice of concept is usually vaguely defined or remains undefined as something almost self-explanatory. Lack of clarity contributes to interpretations by various researchers in ways significantly different from each other. Those who do not actively confront their underlying assumptions are condemned to be 'prisoners of their own theories' (Argyris 1977:119 as cited by Whittington, 2001:10) To make the present analysis of literature more helpful for understanding, discussion of what will be called processual analysis is essential. Whereas a definition of process indicates one's meaning of process in relation to other uses in the literature, a theory of process consists of statements that explain "how" and "why" a process unfolds over time (Van de Ven, 1992:174).

Van de Ven (1992) identifies three views of process. The first one is a definition of a process as an explaining logic to explain cause-and-effect relationships between inputs and outcomes. However, the process itself is not present in these analyses; it is only referred to as a link which holds inputs and outcomes together. Process is reduced to an inevitable self propelling force which transforms A into B. The focus here is on *whether* or *if* A turns into B.

The second meaning is that of a category of concepts that apply to phenomena taking some time (e.g. planning, running, evaluating). However, apart from having continuity they are then put within the same frame of cause and effect relationships as other concepts. Process is used here to differentiate between conceptual constructs which take time and exist in time. Both these approaches are mechanistic in a sense that they can only provide frames of reference for answering questions concerning *what* happens and *if* something will happen. Neither of the approaches deconstruct phenomena from the

why and *how* perspectives.

The third view of process (Van de Ven, 1992) is that of a sequence of events and activities that describe how things develop over time, and why the outcomes we observe are produced. The profound difference is in making sense of why certain things contribute to transformations and with what effect. It is this notion of process that is argued for in this thesis and it is in this sense that the terms processual and process informed research will be used.

The process informed perspective on strategy is especially helpful if strategizing is not seen as a purely deterministic activity, be it environmentally determined or rationally derived. Already in the early 1970s Bower (1970) and later Mintzberg (1979), Burgelman (1983) and others started seeing transformation of a firm as an iterative, multilevel process, with outcomes emerging not merely as a product of rational or boundedly rational debates, but also as shaped by the interests and commitments of individuals and groups, the forces of bureaucratic momentum, gross changes in the environment, and the manipulation of the structural context around decisions (Pettigrew, 1987:658). Peters and Waterman in their famous work *In search of excellence* (1982) talked about emergence of the successful company through purposeful, though specifically unpredictable evolution.

While there is hardly any disagreement among processualists about taking on this assumption the differences emerge when the search for what presents a satisfactory explanation is launched.

Pettigrew (1985) was among the first to present a *first hand* empirical study of strategic processes coherent with the processual view of organisation. He consistently

acknowledges from the start the 'messy' character of organisational life. "The process of assessing environmental change and its implications for new strategies, structures, technologies, and cultures in the firm is the immensely human process in which differential perception, quests for efficiency and power, visionary leadership skills, the vicariousness of chance, and subtle process of additively building up a momentum of support for change and then vigorously implementing change, all play their parts." (Pettigrew, 1985:xviii)

Although the agenda of the research on Cadbury might appear similar to that on ICI, and Smith, Child and Rowlinson (1990) claim to be influenced by that work, it follows Pettigrew's ideas in a rather narrow way. Nominally the Cadbury research was done within the same or very similar vocabulary of context, process, change, continuity, and paths of strategies, organisational change, ethos and culture. However, conceptually, these terms are very different to the ones employed in the ICI research.

The Cadbury study can not be labelled fully processual, as the term is used in this thesis, although the word process is used frequently and said to be the focus of the research. The way Smith, Child and Rowlinson (1990) view processes of change assumes a prearranged order or sequence where change "proceeds through distinct and identifiable phases, but without clear beginning and ends" (ibid:5, 328). On the other hand, a processual perspective takes charge when a phenomenon of change is posed in terms of *how*, rather than *why*. Here the authors see their task as "to analyse the process by which the transformation proceeded and locate this within sectoral context" (ibid:309). The notion of this process is therefore different from the previously described sequential view, it is about generating or forcing "acceptance of their [transformations] necessity" (ibid:310), position which is very close to the concept of legitimising used by Pettigrew (1985).

This contradictory use of concepts is intentional. The authors explicitly suggest marrying the two polar approaches of environmental determinism and social construction within one approach.

The tension and interplay between determinism and the emergent character of process are at the core of differences among the approaches within process informed research. Departing from the rationally driven view by accepting often irrational behaviour of organisational participants many researchers are reluctant to fully part with the idea of rationality and subscribe to a fully emergent idea of strategy.

Smith, et al (1990) among other authors believe that environment, as they conceptualise it, in some ways forces certain outcomes of organisational change and transformation, and as such, influences organisation beyond any human involvement. In this approach the link between organisational participants and their environment is followed to a degree in allowing independent existence of the environment. The organisational-context relationship will be further discussed later in this chapter, but at this stage it is the deterministic influence, free of human action or perception, of the environment that is important for the argument. Here the reverse move towards the first definition of process discussed at the beginning of this chapter is made as the process of environmental influence on an organisation is reduced to the reference of the theorised underlying cause-and-effect link. As such, any references to such determination move the research away from fully processual approach to strategy.

It is through the rejection of environmental determinism allegedly inherent in the processual view that Whittington (2001) separates himself from the label of processualist. He uses this distinction between emergent and deliberate view of process

to distinguish between what he calls processual and systemic views of strategy. According to his view of processual approach, organisations rather than having perfectly clear rational strategies, opt simply for 'adaptive rationality', the gradual adjusting of routines *as awkward messages from a dynamic environment eventually force themselves on manager's attention* (ibid:22). Managers are seen to be passive towards their environment and interact with it on an almost random basis by processing the random messages that they pick up. There is no determinism and no deliberation towards the direction of strategy.

Whittington (2001) draws a line between what he labels a processual approach and a systematic one by placing *criteria* for satisfying need for rationality within an organisation (processual) or outside in the context (systemic).

> *[firms] are not just the particularistic organisations of the Processual perspective, whose idiosyncrasies are the product of internal limits and compromises. In the Systematic view, the norms that guide strategy derive from the cultural rules of the local society. The internal contests of organisations involve not just the micro-politics of individuals and departments but the social groups, interests and resources of the surrounding context. (Whittington, 2001:29)*

In other words rationalities of a particular strategy are specific to its context and within this context managers can be rational and can successfully plan forward and act effectively.

To further understand the argument about determinism vs. emergence in strategy processes it is useful to make sense of the differences between the terms *determined* and *deliberate*. Whittington's systemic approach is 'deliberate' in that managers knowingly

strive to act rationally and often do this with success. On the other hand it is not deterministic as their rationalities are not merely a function of the universal logic or objectively existing environmental context but are interpretations and actions upon enactments of immediate and broader contexts.

Whittington's distinction between processual and systemic views on strategy is only possible if individuals and their context are treated as separable. Who can answer what someone's local culture *is* except that someone? On the other hand how can one define him/her self meaningfully without references to categories of his/her social environment?

In his classification Whittington excludes a social constructivist view of an organisation out of processual perspective as if under this perspective local and broader culture does not play a role in what kind of strategy emerges. He opposes systemic to processual on the grounds that in systemic perspective strategy is deliberate and it matters.

Processual perspectives should not be seen as denying the importance of having a deliberate strategy, at least on the grounds that the making of it is the focus of their attention. Unfortunately in making these divisions one has to make a choice between deliberate and emergent views of strategy. These however can be seen as inseparable. Values, beliefs and motives of organisational members are not enacted solely within organisational boundaries, not least because such boundaries are evasive and shifting. The ways we act and see ourselves outside organisations influence what we do in a workplace. Organisational participants, those participating in organisational interactions e.g. consumers of goods and services, are often those whom we see as part of the local environment.

On the other hand, such separation of approaches into processual and systemic categories as offered by Whittington (2001) helps to surface potential dangers in fully subscribing to either of the approaches as they are conceptualised. Should the processual approach be associated only with cognitive choices and micro-politics in organisation, this would force us to accept that who we are outside of an organisational setting has nothing to do with what we do in a work-place. To a certain degree logical incrementalism (Quinn, 1980) supports this view, or better put, does not emphasises the opposite. This position suggests that we do exercise logic and rationel but only on much smaller scale.

From the action perspective advocated by March and Olsen (1987), Weick (1990) and Mintzberg (1982; 1979) strategy is seen emergent as actions are taken and made sense of. However it would be unwise to suggest that both actions and sensemaking are not embedded in context of local and broader culture. The importance of local culture is not denied nor does it have to be denied by processualists (Watson, 1994; Pettigrew, 1985, Johnson, 1992). It however is not elevated to the position of a self standing phenomenon existing independently of an organisation or at least it does not have to be.

Perhaps the perception of the processual view as one which does not pay attention to broader context of organisation, and which is locked on purely intra-organisational analysis forces researchers to adopt different terminology to label their approach. Be it the cultural-political perspective of Pettigrew (1985), the Systemic view of Whittington (2001) or process-relational approach employed by Watson (1994) they all stress the '*knitting*', to stay with Peters and Waterman's (1982) metaphor, of organisational fabric from outer and inner contexts into which it is '*woven*'.

However, this diversity of similar yet slightly different approaches within process

informed research produces interesting insights into conceptualisation of strategy process. In Watson's (1994) work, strategy is defined along the lines of Mintzberg's (1979) emergent strategy as "a pattern to be seen emerging over time as actions are taken to enable the organisation to continue into the future" (Watson, 1994:87). There is however no indication which pair of eyes 'sees' this pattern: managers, observers, outsiders, or historians and autobiographers. In presenting discussion of this point Watson (1994) does not emphasis strongly enough the relativity of the strategy pattern and its inevitable link to the moment of its perception in time and context. Even if we concentrate on the realised strategy as the author suggests, the definition of a situation, of what has happened changes with time and context, and so does a perceived pattern.

This definition is offset by the others offered by authors focusing more on ideological and sociological deconstructions of classical strategy. Knights and Morgan (1990, 1991) and Shrivastava (1986), see strategy as a discourse which is employed to legitimise power and hierarchical relationships within western society by relating to positivistic scientific norms and rules of rationality. In itself this definition has limited usability for investigation into strategy process as it makes no claims about what might constitute this discourse. It, however, provides useful addition to Mintzberg's definition in that it implies that the "pattern in the stream of action" whatever it might be only exists and makes sense within the contextual rationale of an observer.

Strategy process research has to a certain degree fallen victim to the broad meaning that the term 'process' entails in everyday life. Without explicit conceptualisation it has been employed to mean a different thing and led to modification or total avoidance of it by many authors. The general direction in which go those who want to disassociate themselves from a mechanistic view of process is to stress and reflect contextual embedding of actions and sensemaking in organisation and how these develop over

time. However with time the term processual has come to be more associated with continuity and context of organisational action and can now act as an umbrella to other-known process informed approaches.

Another argument within process informed research is about where, if at all, to draw a line between influence of environment and influence on it. The general trend is to include increasingly broader context in the analyses. However the relationship between outer context and organisational participants is conceptualised differently, depending on the perceived powers of organisational members to enact their environment.

2.3 To what extent does the existing research successfully deals with issues of context and culture?

2.3.1 Dealing with context in process informed strategy research

The need for contextual analysis is not contested by anyone subscribing to a process-informed view of strategy. Whittington (2001) in his classification limits the processual perspective almost exclusively to the intra-organisational domain while leaving broader context consideration for a systemic perspective. This goes very much against a widely held belief among supporters of processual perspectives that frames of relevant context are to be set broader than simply organisational boundaries. The process skill at the most general level involves legitimising of the content of strategy in the evolving inner and outer context of the firm. (Pettigrew, 1987:661) His framework is applied to three levels of analyses. The primary level of analysis is the *group level*, the second level is *intra-organisational context* and the third one – *environmental context.*

The importance and interplay of both intra and outer organisational context in organising and managing is also at the core of Watson's (1994) research into ZTC Ryland. In *In Search of Management* Watson (1994) sets himself a task of relating strategic exchanges of individuals to the ones which involve their work organisations. Probably an even more important dimension of context analyses is the attention towards temporal, historical context, as the process can only be made sense of as it develops in time.

One of the very valuable features of the ICI study is the accumulation of data on a continuous real-time basis for a period of almost 8 years. And although the final account was written at the end of the involvement, the processes of on-going sensemaking of organisational life as it was unfolding over time was elaborated on and put against retrospective view. These two processes of sensemaking resulted in a framework which

views continuity and change not as separate events or distinctive periods of time but as mutually embedded concepts. In Pettigrew's opinion change is evident in short observations and continuity in long:

> Time itself sets a frame of reference for what changes are seen and how those changes are explained. The more we look at present-day events the easier it is to identify change; the longer we stay with an emergent process and the further back we go to disentangle its origins, the more we can identify continuity (Pettigrew, 1984:1)

Although both time and broader societal context are seen as vital for process analyses the conceptualisation of their relationship with the organisation is seen different by different researchers.

One important assumption made by almost all processualists is a dismissal of concept of organisation as an actor with human-like abilities to "respond", "move" or "think". Treatment of the firm as a 'black box' is quite inadequate for understanding how and why large internally differentiated companies behave as economic actors (Smith et. al. 1990:341). By acknowledging existence of various interest and profession group rationalities within an organisation Smith et. al. (1990) follow with a conclusion that "a firm of any size and internal complexity is unlikely to operate as a cohesive and single-minded actor within its sector" (ibid:318). This as argued by Whitley (1984) brings internal dynamics of management teams within organisations into the focus of the research. The dynamics are primarily conceptualised as a competition of various groups and individuals for gaining corporate acceptance of strategic priorities (ibid:318). The later concept is very poorly elaborated on.

It is even more surprising then that the environment often remains a 'black blanket', if one may extend the metaphor.

Perhaps the heritage of heavy economic influence on strategy research prevents full dismissal of the concept of objective environment with the power to influence an organisation. When talking about political and especially cultural explanations of strategy processes Bailey and Johnson, (1992), Johnson (1992) see these influences as add-on factors to the objective environment-organisation relationship.

The logic seems to be that because there are successful and unsuccessful strategies and the *criteria of success* is positioned outside an organisation (with observers from industry, academia, competitors, media, stock market participants, etc.) , there is a need for strategy, regardless of the process by which it is produced, to match, fit, correspond or be aligned with *company's* environment. The problem emerges where "organisation and its environment are increasingly mismatched" (Faulkner and Johnson, 1992:149). However the relationship between the change and strategy processes, and their contexts is somewhat mechanistic especially with respect to environmental context. The clear separation of an organisation from its environment creates a situation where environment is objectified to a point of self-existence, although influencing the organisation and influenced by it but somehow independent of it. Pettigrew does take on board the position argued by Pfeffer and Salancick (1974:89) that "an organisation responds to what it *perceives* and *believes* about the world", however these interpretations he sees as made against the background of self sustaining environment and self propelling environmental change. It would be difficult otherwise to explain how contexts can derive "from environmental change; the accidents and events of intragroup development; *or* environmental circumstances; they may *also* [not exclusively!] be products of the social construction of men seeking to adjust and label

social conditions to meet their ends" (ibid:49). He later talks about perceptions "of an *incipient or actual* environment" (ibid:439). Authors sometimes treat social construction as something inevitable, which occurs and even can have an influence over actions, but nevertheless a disturbing cover over a true objective environment. In this line of thinking Smith et. al. (1990) expand heavily on some objectified characteristics of the environment, which are present in Pettigrew's (1985) ICI study. To sustain this picture, environment would have to get more "complicated" to be able to cause the variety of influences in organisation.

From the processual perspective, attention to cognitive and network aspects of organisations environment are of most interest. The cognitive arena is described in concepts of constructs and strategic recipes (Spender, 1980) which are shared by sector members. This view is reinforced by Whipp and Clark (1986) who argue that a sector may be characterised by a distinctive language, constructs, mental models and key concepts all of which influence the evolving learning path within this sector. The authors of the Cadbury study though do not provide any criteria on how constructs can be differentiated from the "objective characteristics" of the sector. However, they attempt to explaine *how and why* strategic recipes might change. Smith et.al (1990) identify two sources of such changes: entrepreneurial initiative and "substantial shifts in market and technological conditions", whether these are seen as objective or also as constructs remains unclear.

The authors of the Cadbury study (Smith, Child and Rowlinson, 1990) support the view that changes are appreciated only in terms of the conceptions people have of them, and therefore a sector is a mental model (ibid:315). However they dismiss the fully enacted concept of environment and organisation advocated by Weick (1969, 1975) and elaborated by Smirchich and Stubbart (1985) on the grounds that their analysis requires

"a firmer footing than the view that nothing exists outside a person's ability to recognise it" (Smith, Child and Rowlinson, 1990:316). However they agree with the enactment view "in an immediate sense" without further clarifying, leaving the reader wondering what this might mean.

Unlike Smith et.al (1990), Watson (1994) is comfortable in fully adopting Weick's (1979) concept of environment *enacted* by managers: that is made sense of and acted within and towards correspondingly. From this point of view environment-organisation relationships are not objectively inevitable but just other enactments, however widely or narrowly shared. They are inseparable from those who make sense of them.

2.3.2 Issues of researchers' own voices and perspectives in research accounts

The situation when criteria for strategic success are placed outside an organisation presents another major issue in process research. Getting away from prescriptive modernistic approaches to strategy and acknowledging an arsenal of other influences on strategy such as culture and politics often results in attempts to explore the 'nature of strategy formulation'.

While discussing 'paradigms' in a sense of mind-sets, interpretative schemes, recipes, taken-for-granted which although helpful is always limited, strategy researcher often fails to acknowledge or diverge from an academic 'paradigm'. The tradition of academic writing, where findings and often analyses are given a sense of objectivity through disassociation of authors from written accounts leads to a Cartesian perspective 'as if from above' when talking about organisational phenomena. Therefore what authors *see* in the environment but organisational participants do not see, or choose not to notice is then attributed by the authors to the objective characteristics and forces.

One limitation of the ICI study, which can also be linked to the way Pettigrew (1985) applied social constructionist methodology in his research, is the issue of the author's perspective, or otherwise, the problem of self reflection. Although Pettigrew (1985) was reminding himself and readers of dangers of forcing all variety of organisational behaviour into any single scheme he at the same time set himself "the task of examining how strategic change *actually* takes place and some of the dynamics behind those change processes" (ibid. :24, 39). He later expands on it by seeking answers specifically to: Where do ideas for change come from? Who supports the change agents, and why, and who are the opponents and doubters of change, and why? He also put a lot of emphasis on how the ideas of change were advocated by their supporters, counter played by detractors, the tactics of both and impacts of organisational power systems and cultures in such processes. But still the pair of 'watching eyes' is rarely revealed.

He acknowledged (ibid:41) that the choice of method of enquiry determines the outcome both in terms of empirical findings and theoretical developments and therefore goes into detailed discussion of the chosen methodological approach, which he labels as contextualism. Pettigrew (1985) refers to it as an approach which "seeks to engage a process analysis of action with features of intra-organisational and social, economic, and political context" (ibid:42).

One of the central concepts in Pettigrew's analyses is of interest group rationalities, but the group rationality he seems to have been ignoring is the one of academics, or academia informed observer/participants, which he himself belongs to. There is a strange blend of looking for *actual*, while on the other hand questioning the appropriateness of arguments over 'the true or basic sources of change' (ibid:1) and at the same time attempting to examine process of continuity and change in ICI "as seen

through the eyes and actions of the main board, divisional boards, and senior managers of ICI" (ibid. ; xviii). Writing the researcher's role and involvement out of a research account in an attempt to make it appear more objective gives a reader less chance to get an insight into how and why the process had been made sense of and presented the way it was.

The disassociation of the author from the voice of the account becomes an obstacle in shifting focus from groups' rationalities to making sense and interpreting an individual's perspectives and sensemaking. Speaking of someone's thinking would require acknowledging very subjective character of all judgements in the research on ICI, which in itself is hardly a problem, unless the quest for *the actual* is declared. Even when looking 'through eyes' of managers Pettigrew (1985) rarely talks about a particular pair of eyes it is always at a group level. Whittington (2001) when commenting on the ICI study believes individual managerial rationalities and everyday *practice* of strategy, as he refers to it, are being absorbed in organisational processes (ibid:5).

Unlike Smith et.al (1990) and Pettigrew (1985) , Watson (1994) cannot claim, due to his chosen social construction methodology, to be able to report how things *actually* are. In the research on ZTC Ryland he is very open and clear about his role as a researcher in the process of making sense of organisation and processes. He tries to identify patterns in his own behaviour and thinking which shape his understanding of a situation.

> At this meeting I was playing hard the 'participant' role within the company's management... However, this does not mean that I was not speaking as a social scientist in the sense that I was drawing on my sociological knowledge and theoretical understanding of how organisations work when playing my role as a

committed and combative member of the 'management team'. (ibid:136)

There are also many instances where Watson (1994) talks through the process of his sensemaking of situations, including options which were set aside.

I tried to make sense for myself of such experiences. One area of explanation could be the particular stresses and insecurities arising from currently being adopted by the corporate government. But this did not seem to me to be a good enough explanation on its own. It had also to be related to some of the major challenges at the core of being a manager... (ibid:179)

The first person perspective not only "reveals the hand of a puppeteer" but allows readers to make their own judgements on the appropriateness of arguments, conceptualisations and conclusions made by the author.

Every strategist should analyse his or her particular social characteristics, and those of his or her immediate social system, in order to grasp the variety of social resources and rules of conduct available (Whittington 1992, as cited in Whittington, 2001:36)

2.3.3 Dealing with culture in process informed strategy research

Context and culture in process informed research are often treated as closely related concepts and go very much hand-in-hand. Without cultural analysis the call for broader and deeper context can result in a search for a more sophisticated and complicated system governing this broader stage, rather than seeking ways of understanding why it is sustained or changed and how it is enacted.

If there is one thing that almost all authors, even those opposing processual perspective

and certainly those who support it, agree on then it is that culture is important and it does matter. The way this message is put across shows where the focus of attention in various research projects is applied.

One line of argument for inclusion of cultural analysis in strategy research is linked to the general criticism of objective rationality in favour of culture-embedded rationality. Apart from anything else, decisions are made because they are expected by modern business culture. From a systemic view as argued by Whittington (2001), the show of rationality, if not the substance, is essential to the maintenance of legitimacy. He then emphasises how strategic goals and processes reflect the social system in which strategy is being made (ibid:36).

The culture is seen as a source of rationality rules which allow for such understandings of the world that are accepted within this particular culture. Marsh and Olsen (1987) and Carr (1991) all talk about how rational instruments, especially financial ones, are often put aside in strategic decisions or applied post hoc to justify made choices. And Knights and Morgan (1990: 477) see strategy itself as "a part of discourse of power" which gains legitimacy through references to "positivistic and scientific norms of rationality" which prevail in western business culture.

Pettigrew (1985) turns to a *cultural* view of process combining it with a *political* view of process to deal with issues raised by his *contextualism* approach which "seeks to engage a process analysis of action with features of intra-organisational and social, economic, and political context" (ibid:42). The political view was informed by author's previous works on organisations as political systems (Pettigrew, 1972, 1973, 1977) and drew attention to ways political energy was released at various stages of organisational life. The cultural component of the suggested framework was introduced by Pettigrew

(1985) through the concept of *legitimacy* which bridges '*politics as the management of meaning*' (Pettigrew, 1977, 1979) and *culture*, as a system of such collectively accepted meanings and the source of a family of concepts (Pettigrew, 1985:44). The content of strategic change is thus ultimately a product of a legitimating process shaped by political/cultural considerations, though often expressed in rational/analytical terms (ibid. : 659).

Watson (1994) offers a more encompassing view of culture and sees culture as something that simplifies individual processes of sensemaking and collective action in that it functions as a shared value base by references to which legitimacy for actions is achieved. To support this line of thinking the author gives his accounts of ZTC Ryland where in absence of strong culture or sub-culture rational decisions end up in implementation going astray. In his analysis of ZTC Ryland, Watson (1994) uses the concept of organisational culture as a set of meanings *to be shared* by all members of organisation which defines moral categories of right and wrong and corresponding behaviour (ibid:111). In this sense culture is something elusive, which exists in the form of unrealised attempt to attain desired sharing of meanings. To addresses this problem Watson (1994) differentiates between *official* and *unofficial* cultures through identifying which norms are espoused and which ones prevail. "The rationale of managing an organisation 'through culture' is one of trying to make the official culture and unofficial cultures as consonant as possible and, ideally, to make them one and the same' (ibid: 112). The issue however remains, how do we know that the official culture would work? What does it have to be to work? By differentiating between official and unofficial cultures Watson also sets a question for further research of what the official culture should be. Otherwise, successful managing 'through culture' can turn out to be going along with unofficial culture purely for the sake of consonance. The issue is partially addressed through references to *strong* cultures and the assumption is made

that in this case official culture would work for the organisation, that it would create *nomos* (concept of Berger, 1973) order out of the continuous flow of experiences.

A slightly different way of explaining links between organisational culture, strategy and managerial behaviour was made by Johnson (1992). He grounds his explanations in ideas of logical incrementalism (Quinn, 1980) and a cultural perspective on organisation. Central to his culture informed approach is a concept of *paradigm* offered by (Schein, 1986) a 'deeper level of basic assumptions and beliefs that are shared by members of an organisation, that operates unconsciously and defines in a basic "taken for granted" fashion an organisation's view of itself and its environment" (Johnson, 1992: 6). By combining the two approaches Johnson (ibid) effectively strips logical incrementalism of its logical component. Instead of understanding it as a logical testing out of strategies in action, "strategic management can be seen as organisational response over time to a business environment which is essentially internally constructed rather than objectively understood" (Johnson, 1992:212).

Analysis of culture in process informed strategy research also requires attention to how elements of cultures such as symbols, beliefs and values come to mean what they mean, the way they are negotiated and constructed. "Moreover the ability to reshape corporate culture through the formulation of new key *concepts* and *symbols* made an important contribution to the activation of change." (Smith, et.al, 1990:339) For this task Watson (1994) turns to language as its "major manifestation". All three studies of ICI, Cadbury and ZTC recognise the influential role of language in shaping managerial thinking. However, Watson (1994) makes issues of language, rhetoric and discourse central in his research. The concept of discourse is seen as mediating the power and language relationship (ibid:113) as discourse determines what truth is with regards to issues it covers (Foucault, 1980). Attention to and sensemaking of discourses employed by

organisational members while revealing authors' own discourse allows readers to make their judgements on appropriateness of presented argumentation, truths and outcomes.

> The present book, for example, is developing its own discourse and its own 'truths' as part of its author's rhetorical enterprise of influencing his readers, linking together terms and concepts such as strategic exchange, culture, dialogue, rhetoric, the nature of being human, work organisation, productive co-operation, managerial work and so on. (Watson 1994:113)

The above statement suggests that discourses are produced through the process in which various concepts are linked together. Watson (1994:22) talks about importance of story telling in providing us, as humans, with answers, 'truths' to many questions including that of meanings of life, love, and success. As such, stories as expressed discourses can be seen as major ways to influence and change cultures. Because of this profound importance of stories in shaping individuals' lives the concept of *story telling* might not be totally appropriate. Individuals do not just *listen* to stories, they *engage* with them (ibid:22). This aspect of story telling has been acknowledged in ZTC study but needs to be further elaborated.

The concept of paradigm is somewhat similar to that of a discourse in that it provides a frame of reference for sensemaking with the exception of attempting to be more holistic by relating to all members of organisation. Paradigm is something shared by member of an organisation on a deeper level (Johnson, 1992:206). It is embedded in a wider cultural context and protected by a web of cultural artefacts such as stories and myths, symbols, power structures, organisational structures, control systems, rituals and routines. The questions then arise such as, do all members share it? Can it be partially shared? How is it different if at all from culture? The way it is transmitted to new

members of an organisation: through stories, symbols, power structures, control systems, organisational structures, rituals and routines suggests these all can influence an individual's interpretative scheme. Hardly any two members of an organisation share the same function, same power status, same age, and gender, social, cultural and educational grouping, and it would be more appropriate to talk about multiple paradigms within any organisation. Discourse is a more convenient concept as it acts as a subsystem of meanings, with internal criteria of truths, which are employed more or less often by organisational members in some situations of negotiating. It is not necessarily shared by all members multiple discourses can exist within the same organisation were often compete for legitimacy.

The theory of structuration, the enactment view of strategy and context, and concepts such as discourse and legitimacy provide means for dealing with issues of context and culture in strategizing. However, current studies lack attention to how new and particular discourses are created and brought into processes of strategy making and why some of them become more important than others in a particular organisational culture. The level of analysis should be on an individual level to allow for individuals' rationalities to be observed by a researcher who in doing so should also aim to reveal his own rationalities and discourse for the benefit of broader readership.

2.3.4 What is the underlying theorising of human agency in organisational settings?

In many ways the whole area of process informed research offers a discussion around the same set of problems: how one can profitably understand the interplay between organisational culture and what is referred to as internal and external environments and how these relate to processes of managing and strategy making. The major problem

appears to be in fitting the newly accepted model of human beings who are not always rational and driven by many, rather than single, motives into theorganisation-environment frame. The issues of rationality have been touched upon earlier in this chapter and because the discussion was mainly concerned with group rationalities and not individual ones these need to be revisited here. Positions on this matter determine what powers are "granted" by theorists to managers to affect organisational life. Inevitably any research has to be based on a model of a man and his/her interactions with environment. Although this issue is of high importance very few researchers take time and space to explicitly state their views in respect to the issue.

Strategy process research has been significantly influenced by the concept of *bounded rationality* offered by Simon (1955, 1956) and further developed by Cyert, March and Simon (March and Simon, 1958; Cyert and March, 1963). The notion that we accept satisfactory solutions rather than keep searching for the best ends the hegemony of view about rational agency in human beings and does justice to other influences which make us do what we do. The concept of bounded rationality has definitely been taken on board by process informed researchers but implications of adopting it are seen differently.

There is Quinn's *logical incrementalism* which can be seen as a direct derivative from Simon's bounded rationality point of view in that the search for optimal solution substituted with search for satisfying. This raises the issue of what the criterion for satisfying is or where it is coming from. Quinn acknowledges that even small incremental decisions should not be seen as entirely separate. The organisational subsystems are in a continual state of interplay; the managers all know each other and can interpret each others' actions and requirements (Johnson, 1992:154). Logical incrementalism assumes the existence of a commonly accepted set of values or at least

understandings within the frame of which the processes of negotiation and bargaining take place.

One of the main features of Quinn's theoretical approach is that the search for satisfying does not imply absence of the *actual.* In other words managers are seen as making sense of the objective actual environment, however as their rationality is bounded their understanding is never full. This interpretation of Simon's work is common in management literature even among process informed researchers and can, as in the case of the Cadbury study, lead to acceptance of objective forces behind environment-organisation interactions.

When discussing sensemaking of managers, Watson (1994:88) also suggests it is always *partial* due to bounded rationality. The use of the word *partial* in this context may be misleading as it might suggest the existence of some *full sense* which is unattainable due to a limited ability of humans to process data. More consistent with the enacted view would be a position in which a manager's sensemaking is regarded not as partial but as unique, and by being different from senses made by others it always lacks many elements of these other sensmakings. An individual's perspectives on the world should not be seen as some parts of the *full sense*, but as phenomena in their own rights, which are competing with each other for legitimacy.

So Quinn's logical instrumentalism does not explicitly deny the universal character of logic, and although such rationality is applied on a smaller scale it is still viewed neither as socially determined rationality of systemic view according to Whittington (2001), nor socially negotiated rules of enactment.

The 'garbage can' model (Cohen, March and Olsen, 1972), on the other hand suggests

that decisions have little to do with rational process. They happen rather than are taken. Decisions are produced through relatively random moulding of 'problems', 'solutions', 'participants' and 'choice of opportunities' (situations) which are floating in an organisation. Mintzberg (1998) and Waters (Mintzberg and Waters, 1990) go further by saying that decisions can get in the way of strategy as they often lead to commitment, which is not necessary where the combination of incremental change, intuition and chance would take a firm. This line of thinking can be supported by industry examples such as the chief executive of McKinsey. In his interview in 2001 he said that at his company where rationality is mastered to perfection all decisions and solutions presented to him by his colleagues are flawless from the point of view of logic. He prefers not to make decisions but *work towards a situation when a decision will be made by itself.* In an environment where everything is logical and rational, they loose their value. Another observation that one can make from the literature on strategy processes is that objectified features of environment do not necessarily translate into non-socially constructed view of social actors:

> The perceptions and social construction of actors can then be regarded as of consequence in their own right if these directly determine the behaviour of firms, even though at the same time sector environments possess real properties which are distinct from the perceptions of particular players within them. (Pettigrew 1985:316)

But at the same time:

> *...external forces had to be perceived by managers and internalised through the power structures and the decision making processes of managerial hierarchy, and could not in some straight-forward way simply enter managerial thinking and*

action. (Pettigrew 1985:359)

Thus although environmental forces are believed to exist objectively managers can only relate and think of them through social processes of internalisation were multiple rationalities compete.

The existence of various rationalities is credited to and reflects *external linkages.* Depending on the intensity of these linkages, the degree to which managers are "immersed in sector information and knowledge" (Pettigrew 1985:319), two types of managers are identified: *boundary managers* and firm *specific (or core) managers.* This position is a marriage of social constructionist methodology with elements of epistemological realism and is quite difficult to sustain because of contradictions between underlying philosophical assumptions. Further evidence to support this argument can be found in Pettigrew's critique of Marxian influenced scholars for dismissing ontological status of organisation (ibid:30). He believed this would have to lead to the abandonment of use of the term organisation, and later went on criticising definitions of environment, which concentrated on behavioural processes (ibid:34).

In *In Search of Management* Watson (1994) goes into length in discussing humanness and the way it is socially constructed through engaging in conversations with others and ourselves through internal dialogues. By adopting this model of humanness Watson (1994) accepts the two-sidedness of social life: the side in which individuals can be seen to initiate, choose and shape their world, and the side in which they can be seen as being constrained and shaped by influences external to themselves.

The perspective labelled by Watson (1994) as *strategic exchange* is offered to deal with the two sidedness of social life. Exchanges in this perspective refer to the symbolic and

the abstract as well as the material and the concrete. These exchanges are said to be *strategically* shaped wherever they have some relationship to a broader purposive scheme of things "however vague or emergent that scheme might be" (ibid: 26). In this sense *shaping* is similar to the concept of structuration suggested by Giddens (1984) in which an individual's orientations towards action are both constrained and enabled by context. Thus the strategic exchange perspective focuses on processes and practices through which structuration of both individuals themselves and their environment is achieved.

The framework offered by Johnson (1992) works within the assumption of individuals reacting to their construction of the environment and in this part it is very similar to the basis of structuration theory of Giddens. However it downplays the roles of individuals in strategy making in favour of shared cognitive mechanism – paradigm, which suggests homogeneous interpretative schemes within an organisation. Nevertheless it draws attention to the importance of various cultural artefacts as enabling and constraining mechanisms of effecting sensemaking and strategy making in organisations.

To a certain degree, the socially constructed view of social actors is present in almost all strategy process research. However, the introduction of objective features of environment, or a concept of universal logic distorts full enactment models of human beings and their environment. To sustain these models authors employ concepts of shared group rationalities and paradigms to be the source of criteria for making sense of what presents a satisfactory construct or explanation. By redirecting the focus of attention from an individual to group rationality, the questionable assumption is made that such rationalities are shared and accepted. Those who adopt this assumption grant such constructs almost a self sustaining status, while those who do not are than forced to

deconstruct them in order to understand how they come into existence and change. On the other hand, approaches which maintain a focus on individual rationalities, agendas and politics and remain within a socially constructed model of humanness, allow for analysing dynamics of both actions of organisational participants in immediate and broader context and at the same time addressing questions of *why* and *how* these contexts are changing as they are made sense of and re-enacted.

2.4 The themes of innovation and uncertainty in the existing research

In strategy process research the theme of innovation is developing along the same major lines as in strategy processes research itself. With the exception that unlike other organisational processes innovation was from the start granted the status of very unpredictable and difficult to manage processes with a variety of multiple factors at interplay.

Although no time sequence should be attached to the following arguments there is an attempt to look at various themes which were developing in innovation process literature in the last half a century.

A number of decades ago the belief was that innovation process can be fully rationalised and predictable.

> Technological progress is increasingly becoming about the teams of trained specialists who turned out what is required and make it work in predictable ways. The romance of earlier commercial adventure is rapidly wearing away, because so many more things can be strictly calculated that had of old to be visualised in a flash of genius (Schumpeter, 1962:132).

This opinion was given up relatively easy following numerous investigations into the "nature" of innovation. In spite of increasingly scientific understanding and the growth of R&D activities as a central feature of corporate 'routines', innovative activities are still highly uncertain (Pavitt and Steinmueller, 2001: HSM 351).

In strategic management, many now agree that formal and rational models of

technology and innovation strategy are likely to be based on mistaken assumptions, especially in fields with rapid technological change. Innovation within firms occurs through processes that are autonomous and emergent even as they are shaped through processes that are strategically introduced by top management (Burgelman, 1983; Mintzberg, 1978; Noda and Bower, 1996). Under such circumstances, incremental 'muddling through' (Lindblom, 1959) and 'emergent strategy' (Mintzberg, 1987) models are likely to offer greater insights.

The issue of process definition and conceptualisation in this area is as vital and crucial as it is in strategy process itself. Those taking a rational, mechanistic view of processes which passes though defined stages are more concerned to find the fit between its various stages and the organisational structure (Burns and Stalker, 1961). Claims like the one of Zaltman et al. (1973:53) "in the process approach, innovation is viewed as an unfolding processes consisting of stages in which characteristic factors not only appear in greater or smaller degree, but also in a certain order of occurrence" often force authors to avoid being labelled as processualists when it comes to discussion of innovation. Pettigrew (1985:16) specifically uses the quote of Zaltman to distance himself from this position and calls for research into *how* and *why* of innovation process along the lines of *satisficing* (March and Simon, 1958), *political* and *garbage can* views of process.

Pettigrew (1987) further extends his criticism by saying that episodic views of change not only treat innovations as if they had a clear beginnings and a clear end but also, where they limit themselves to snapshot time-series data they fail to provide data on the mechanisms and processes through which changes are created.

In short, the essence of non-mechanistic process informed approach to study of

innovation is well captured by Wolfe (1994): 'Process theory research of organisational innovation investigates the nature of the innovation process; how and why innovations emerge, develop, grow and (perhaps) terminate, are examined. The unit of analysis of process theory research is the innovation process itself' (Wolfe, 1994)

Concepts which are often linked to the discussion of innovation are knowledge and knowledge creation. Both knowledge and creativity are more easily associated with social human activity compared to many other organisational processes, not least because they have for long been in the domain of social scientists. Sociologists of science have stressed that scientific and technological capabilities are socially embedded, and therefore cannot be readily transferred because each social grouping requires a process of working out specific forms of power, negotiations, decisions, delegation and monitoring functions. (Pavitt and Steinmueller, 2001) Process informed researchers who elaborate on many developments in social science generally agree that innovation is a socially embedded processes and a very "human" process. However this does not mean there is a shared understanding of this phenomenon

The Concept of knowledge, although highly important, by itself proved to be insufficient in providing understanding of innovation success. Contrary to many predictions, the growth of specialised knowledge has not been accompanied by the dominance in innovative activities of firms specialised in providing such knowledge (Pavitt and Steinmueller, 2001: 350).

Although large organisations have been able to institutionalise the process of knowledge creation, their capacity to exploit this knowledge in commercial application is often hindered by the difficulties of demonstrating that a project will have a measurable impact on the corporate balance sheet, of co-ordinating the specialised competencies of

R&D and manufacturing, of harnessing 'feedback' processes from customers, downstream development processes, and of organising parallel development cycles. These difficult issues are all consequences of the uncertainties about the rate and the direction of technological change. They raise fundamental doubts about the ability of single organisations to co-ordinate the commercialisation of new technologies, especially radically improving ones.

Further research led to the acceptance of the importance of a much broader context for organisational innovation. Many recent studies indicate that successfully innovating companies are embedded in a web of relationships with external bodies and organisations. There were a significant number of studies which stress relevance of external linkages to successful innovation. Powell, Koput and Smith-Doerr (1996) looked at the alliances in biotechnology industries and came to the conclusion that the locus of innovation they see can be found in learning networks rather within individual firms. Rosenkopf and Nerkar (1999) researched the optical disc industry and believe that companies which are relatively uninvolved in the developing of external linkages tend to stick to the path of what they refer to as "technological evolution" where incremental steps are taken to improve existing technologies. Interconnectivity required for successful commercialisation is also achieved through "technological clusters" and networking (Pavitt and Steinmueller, 2001:359). Such clusters provide large organisations with a variety generation mechanism, which is difficult to construct internally within an organisation.

In addition to formal interactions a similar pattern was found in informal linkages between organisations. Liebeskind et.al (1996) researched collaboration behaviour in biotech industry. They studied informal research collaborations. Their analysis of the publication and patent records of two highly successful biotechnology firms revealed a

myriad of research collaborations with external parties (mainly research laboratories and universities), which were not covered by either contractual or market arrangements. In addition, the findings of the study also pointed to the importance of long-term employment of scientists that enable a stable organisational context, creating conditions that were helpful for sharing knowledge.

The move towards analysis of a broader context and acceptance of its relevance do not downplay the processes which are conceptualised as intra organisational. Thus Garud and Van de Ven (2002) among others conclude that innovation is shaped by change processes occurring on numerous fronts. The term *interactive process* has been attached to innovation to describe both intra- and inter-organisational innovative activities.

However acceptance of this process-relational position once again led to very different suggestions for further research. The trend in strategy research was to include broader context when looking at innovation processes, which partially redirected research agenda into focusing on how these linkages with broader context can be managed. On one hand there those who argue for a typology of various innovation projects, industries, approaches and so on in search of various *fits*. (Pavitt and Steinmueller: 360). They see the aim of culture research to develop a robust taxonomy that classifies and matches the nature of technologies (their source, rates and directions of change, costs of experimentation) with the products, markets and organisational practices associated with their successful exploitation.

There is an alternative approach. The growing body of empirical research looks at many organisational features associated with successful and unsuccessful innovating firms in an attempt to give greater practical and operational substance to the notion of the 'routines' that govern innovative activities. However, accepting that the lack of

homogeneity in social contexts makes it impossible to offer simple recipes and procedures for successful innovation that will ensure success in all circumstances and at all times, attention is directed at *rules* of matching of the characteristics of technology with organisational practices: external linkages with potential customers and important sources of knowledge and skills; internal linkages in the key functional interfaces for experimentation and learning; degree of centralisation of resource allocation and monitoring consonant with the cost of technological and market experimentation; criteria of resource allocation and monitoring consonant with the cost of technological and market opportunity; and alignment of professional groups with power and control fields of future opportunity (Pavitt and Steinmueller, 2001: 356). Eisenhardt (2001) uses the term *simple rules strategy* to describe a similar approach which she argues is especially profitable when applied to managing innovation. Her argument is centred on the belief that when structuring and assessing innovation outcomes is problematic it is the process of decision making that has to be structured.

Process informed literature on organisational strategy provides a rather well developed discussion on the importance of interplay of intra organisational processes and external linkages. However in some cases the impression is given that such linkages are significant in acquisition of further knowledge *for* innovation processes, although in this case it is not necessarily specialised or technical knowledge.

Innovation as a process and as practice, goes beyond knowledge creation and also includes what Dougherty (1992) calls the "*exploration* of knowledge which links market and technological possibilities" (Dougherty, 1992:77) However, accepting this definition does not mean signing up to the notion of existing market opportunities as self sustaining structures. The structuration theory of Giddens (1984), favoured by many researchers operating from a process informed perspective, stresses the dualism of

structures and human actions where humans are both influenced but at the same time empowered by existing structures but also have the freedom and capacity to alter them.

One attempt to model innovation as a structuration process was undertaken by Edwards (2000). He argues that a better understanding of innovation will be served if a process approach is couched in terms that treat action and structure as a duality not a dualism. Edwards (2000) grounds his model on Clark's (1987) concepts of organisational *repertoires* and *poses*.

The interactive process perspective on innovation offered by Edwards (2000) is in many ways similar to the strategic exchanges approach of Watson (1994, 2001) and the practice approach of Whittington (2001) in that it reflects the continuity or modification of behaviours and resources that mediate outcomes of human conduct in organisational setting. However Edwards (2000) in his study places nearly all emphasis on innovation processes leaving the issues of their interaction with broader strategic processes out of the scope. Watson and Whittington on the other hand offer broader frameworks encompassing all multiplicity of interactions of organisational life. However there are very few studies on organisational strategic processes which give specific justice to innovation processes at the same time placing them within a broader context of organisational processes.

Smith, Child & Rowlison (1990) attempt to conceptualise the place of innovation processes in relation to other strategic processes by introducing the concept of *strategic innovation. Strategic innovation* is identified by decisions and their implementation which gave rise to major changes in products and markets, production processes and technologies and organisations of work. Such innovation is strategic in so far as it denotes a shift in the basis on which management seek to secure prosperity for the

organisation within their environment (Smith, Child and Rowlinson, 1990:309). This approach however implies a retrospective analysis of the outcomes and gives little explanation of the unfolding events and actions.

Discussion of innovation processes and especially their interplay with other strategic processes would be difficult if not impossible without resorting to discussion of uncertainty. One position on which almost all authors on the subject tend to agree is that innovation relates to the conditions of higher perceived uncertainty associated with innovation itself. While, the task of any manager is to address issues of continuation of his/her organisation into the future, innovation by its definition offers interpretations of the future previously unavailable. "By the very nature, R&D activities are highly uncertain: R&D invents a future that cannot be known today. Processual theorists stress both the unpredictability of innovation and the rigidities embedded in the creative process." (Whittington, 2001 :78) it is a more or less uncontrollable process, which often happens regardless rather than because of what management attempt to do.

2.5 Conclusion

Van de Ven and Rogers (1988:632) when discussing requirements for future research from the positions of structuration and process informed perspectives call for development of new theories which would reconcile the action-structure relationship. Although this claim was made more than a decade ago it still remains.

The available literature on strategic processes shows a move towards a behavioural notion of organisational processes. Significant emphases are put on theorisation of the phenomenon of strategizing through introduction of concepts of context, culture, symbolism, rhetoric, discourse and innovating which do justice to continuity and social embedding of organisational processes. Process informed strategy research develops in a number of directions. On one hand there is broad theorising of managerial action and motivation for action within organisational setting. On the other hand there is theorising about a particular managerial activity with consideration and reference to various internal and external organisational influences. While the first way does not usually provide insights into rationalities of particular broadly identifiable contexts of modern business, the second approach tends to elevate what is in the focus of its enquiry almost to self standing organisational phenomena be it innovating, promoting or anything else. This could be seen as a sign of a relatively young and developing field which had not yet had time and resources to go all the directions that the newly adopted approaches allow it. A beneficial way forward would be to make sense of strategizing in contexts where particular powerful discourses and identifiable orders prevail without loosing focus of overall strategy processes themselves.

Research is needed to make sense of *how* strategic processes are constrained and enabled by the organisational culture and organisational orders and especially why

certain social constructs such as particular discourses and narratives are more successfully brought into negotiations than others. Particular interest would be to address these issues in contexts and cultures which are perceived as both innovative and uncertain. In many high-tech markets today 'winner-takes-all' (Shappiro and Varian, 1999) and innovation and uncertainty, as a discourse at least, are perceived to bear more and more connection to the overall strategic and organisational success. Thus attention to particularities of strategizing in such contexts would be beneficial.

Apart from anything else first-hand longitudinal studies of strategic processes are still very limited in numbers, due to the time consuming characters of such projects and each new attempt aiming to apply and extend further existing theorising would be of a benefit to the strategy process research. These of course would have to be done revealing authors' own rationalities and along the lines of appropriate methodologies and methods. The next chapter will address the issues of appropriate methods along the lines of chosen process informed methodology as well and will present the discussion of the conceptual framework which has been evolving throughout the duration of the present research project.

Chapter 3: Methods and Conceptual framework

3.1 Introduction

The main task of this research inquiry is to understand and make sense of *how* and *with what effect* strategic processes are constrained and enabled by the organisational culture and organisational orders and especially why certain social constructs such as particular discourses and narratives are more successfully brought into negotiations than others. The study started as a quest for sense making framework of organisational context and process and the way strategic processes play part in it.

The essential difficulty and at the same time one of the main advantages of grounded theory approach is the lack of a clear defined set of categories which allow breaking the fieldwork experience into significant and manageable chunks. On the other hand it would be naïve to imply that a researcher can approach a field setting with 'clear head' and develop concepts and categories out of pure experience there and then. I expected my field work to be a process of testing assumptions about importance, mutual coherence, relevancy and applicability of concepts already known to me, and at the same time I was prepared to make sense out of experiences as I proceeded and to develop new concepts out of it.

However exiting I was finding the prospect of that process to be I was afraid to miss the important or crucial bits as I did not always knew what to look for or whether I even would recognize 'it' when I see 'it'. The danger was, of course, to end up with nothing in a sense of no answers that would be both relevant and internally consistent to address my research questions. Having a hypothesis has at least an advantage of being able to report on *either* its appropriateness or inappropriateness, while seeking sense and not

finding it can hardly be qualified as a satisfactory outcome of a research inquiry or a PhD project for that reason. I sincerely believe this did not happen in this case and the study provides a useful conceptual and theoretical exploration and introduces the new conceptual framework to make sense of *why* and *how* strategic processes can have more or less powerful effect on organisational life. However in this chapter it is my intention to present the discussion of methodological, ethical, conceptual and other important choices I had to make and dilemmas I had to resolve as I was proceeding with the project, rather than provide a post hoc rationalisation for the suggested framework.

The chapter is structured in the following way: description of the conditions of access and the issues rising from it; the discussion of how the initial pool of concepts was selected; adoption of an ethnographic approach and single case study design is advocated; the conceptual framework resulting from the whole study is presented and explained; limitations of methods and research design are discussed. Such an order also roughly reflects the temporal sequence in which the decisions were made (apart from the discussion of limitations, which are touched upon in relevant parts throughout this chapter but are summarised at the end for the convenience). The aim of this chapter is to report on the process of *how it was* to conduct this research and also to present its main theoretical contribution, the new conceptual framework.

It was a long struggle to decide how appropriate it was to place the discussion of the conceptual framework at this point of the paper. In this project, a practical conceptual framework for sensemaking of organisational sensemaking should provide answers to the proposed research questions and as such it is not only the way to structure the research but also its outcome. The completed and finalised conceptual framework was not available prior to the fieldwork but was developing throughout it. However I believe while in this chapter it is explained *how* the results were achieved, in the later chapters

of analysis and discussions the framework is used to suggest *how* to make sense and give explanations to the posed research questions, thus justifying the appropriateness of the new framework and its validity. Therefore the conceptual framework is presented at this point of the paper while its appropriateness and limitations will be further discussed and summarised in the Conclusion chapter.

3.2 Conditions of access

The existence of a parallel project in which I was involved as an associate with one of the UK leading biotech companies in its field made the research possible.

The role of an associate meant a number of desirable research conditions. It was a full time, year- round and extending over an eighteen month long engagement period. I was employed by the company to work on what was broadly defined as a marketing function. My position also meant I was exposed to and involved in everyday activities of the company including daily interactions with formal strategists and other internal and external organisational constituencies. The associate's role also implied that this affiliation was designed to be beneficial for all parties from the very start and thus, facilitated more intensive involvement in many aspects of the organisation's activities, which could have been problematic. Upon my joining, the company's management expressed intention 'to scale things up' and 'to make it more commercial', which could be interpreted as a desire for organisational transformation.

The company under study can be characterised as one of the most innovating organisations in its sector in the region. This was explicitly and numerously acknowledged by the government bodies, pharmaceutical companies, industry rivals, customers and management of the firm.

The duality of my 'outsider' role as a researcher and an associate allowed for a very close involvement in organisational web of relationships. And although Coffey (1999) argues that 'it would be wrong to suggest that most of us ever really become part of the cultural setting we study... even where the relationship between field-worker and setting is lengthy, the fieldworker comes and goes and is rarely a constant element' (ibid: 37) I felt for a number of reasons I came very close in this respect. The two years I spent with the company on a full time daily basis meant I was there for almost as

along as most of the staff. Very early into the project I was offered the option to stay with the company upon completion of my consultancy project, and I was seriously considering this option. And out of my three roles of 'one of us', 'consultant who works for us' and 'researcher' I believe the last identity was least often referred to by organisational participants, however, that is not to say I was able to forget about it myself at all times.

This level of access was extremely favourable for conducting in-depth, longitudinal, contextual research and my initial pull of concepts was chosen to reflect these aspects of organisational life and to allow make sense of the organisational dynamics as events were unfolding.

3.3 Initial choice of concepts

The emphasis on continuity and processes of social construction expressed in the research questions call for concepts which could do justice to contextual management of meanings over a period of time. Thus, although the choice of concepts was not finalised at the beginning of the field research there certainly was understanding of what kind of concepts these might be. The intention was to look for continuity, change and patterns in perceptions, values, cultures, processes of negotiation, processes of conveying meaning, processes of resolving conflicts, processes of communication and social processes of enactment.

3.4 Why case study?

The research questions for this project as well as types of concepts intended for theoretical exploration and devising the final conceptual framework call for research design and research methods which can successfully accommodate deep contextual, longitudinal data gathering. On one hand many organisational processes which can be identified as patterns take place over a prolonged period of time. Also, as Pettigrew (1985) noted in his study of ICI as time passes perceptions of change and continuity alter and what is perceived as change in a short term analysis might be interpreted as continuity on another level.

The need for a researcher's longitudinal and profoundly deep involvement in organisational processes and context together with the time constraints of the project itself made the choice of a single case study as a research design and ethnographic research methods to appear most suitable.

The case study approach has long established its appropriateness in organisational research especially in projects concerned with situations where either a particular phenomenon within an organisation was researched in maximally rich context or the phenomenon under study was believed to be relatively unique or rare. The importance of rich context has already been discussed in chapter two. In case study research design the focus is placed not so much on general constructs but on the context of such constructs and the roles these play in a particular organisation setting. According to Dalton (1959; see also Dyer and Wilkins 1991):

The aim [of the researcher] is to get as close as possible to the world of managers and to interpret this world and its problems from the inside... we wish to describe both unique and typical experiences and events as bases for theory that is developed and

related to other studies. (Dalton, 1959:1-2)

Through close involvement with one case the researcher is less likely to ignore more tacit aspects and elements of organisational setting which might not appear obvious from a more surface approach. In their debate with Eisenhardt (1989, 1991) about appropriateness and suitability of case study design in organisational studies Dyer and Wilkins (1991) argue that single cases allow for deeper analysis of the dynamics and processes, highlighting constructs operations in an ongoing social context. "The result is that the classic case study becomes a much more coherent, credible and memorable story. And we argue that good storytelling is what makes the most difference in the generative capacity of the classic studies..." (ibid: 634). They argue that the classic case study approach has been extremely powerful namely because authors have described general phenomena so well that others have little difficulties constructing similar phenomena out of their own experiences. (Dyer and Wilkins, 1991:617)

Supporters of case study research design in organisations call for even more context from which the study has emerged and also for more personal disclosure of the authors' own position and presence with a particular context (Stake, 1995; Yin 1993). Case studies allow for multiple levels of analysis within a single study (Yin, 1984) and this should be fully exploited, whether multiple levels refer to various organisational contexts from more immediate to broader ones, or whether they refer to multiple levels of sensemaking.

The traditional criticism of case study research design comes in one way or another from a statistically informed point of view whereas one case can not be viewed as a typical representation of the whole class of phenomena. Thus the validity and generalisation of results in case study research are some times questioned. However, if

we look at each organisation as a relatively unique phenomenon with individual pull of resources, individuals and cultures, any generalisation would struggle to provide plausible explanation for a particular organisation with a multitude of factors involved at its interplay. The pattern of success or failure in each organisation is relatively unique for the reasons mentioned above and can only be reduced to template at a very crude level of generalisation. On the other hand the process through which successful patterns are emerging and enacted, the way sense is made of organisation and its environment might provide insights into why and how certain activities have a desired impact while others do not. Thus any generalisation attempted within interpretative research such as a case study should be done only processually and not through statistical significance (Watson, 2001). And even processual generalisations should not be attempts to uncover the universal laws governing social agent in humans, as some critics of case study design believe what is going on (Dyer and Wilkins, 1991). Processual generalisations are accounts of how one can make sense of organisational processes and why such sensemaking makes sense.

Any statistically significant generalisation implies similarity in elements of contexts of phenomena under study against which correlations are calculated. The call for generalisation implies an assumption of greater importance of similarities between phenomena rather than their differences in providing explanation for their success or failure. This might or might not be the case. However when the focus of attention is the companies that tend to innovate, to make things differently from others the search for similarities rather than peculiarities in their organisational context might be more harmful than useful. At best such statistical analyses would allow singling out particular innovative practices and turning them into best practices, however leaving behind the process of how innovation becomes innovation in the first place (Dyer and Wilkins, 1991).

There is no doubt that strategy research would benefit significantly from a large number of in-depth longitudinal case studies. However, large numbers are not feasible to achieve within any individual project with time constraints given.

Employing a case study in strategic process research will allow making sense of how and why organisational participants themselves enact their common and unique qualities and how and why they choose to act on them and make sense of their actions. The outcomes of this case study research cannot be generalised over a certain class of phenomena for the problem of classification of such phenomena alone. But the outcomes of the project can provide a conceptual framework which might be helpful in explaining how and why a particular pattern has developed in an organisational setting or it can act as a sensemaking reference in situations of strategizing where believed appropriate by researchers and managers alike.

With an adopted constructivist methodology the validity of case study outcomes is achieved through revealing individuality and contexts behind the author's conceptualisations and rationalities. Instead of reducing biases in the researcher's attitudes and understandings in a single case design, the possibility of eliminating such biases is questionable in general, the emphasis is put on revealing the author's presence and perspective in research accounts and discussions of organisational life. Readers of the research account are given contexts of a researcher's involvement for them to make their own judgements on whether they subscribe or not to the proposed sensemaking of a situation and to what degree. Validity in a case study account can be seen as the degree to which a reader of the research account feels that the rationality presented makes sense and that they feel they understand the sensemaking behind the rationality. On the other hand the sheer variety of influences and interactions in any occurrence of

organisational life make it very unique although some commonalties can also be identified.

3.5 Why ethnography?

The choice of ethnographic research method was determined by the decision to make sense of organisational life and culture and ethnographic method is better suited for such tasks than any other currently available method. In short, ethnography when used as a method can be summarised as "fieldwork conducted by a single investigator who 'lives with and lives like' those who are studied, usually for a year or more." (Van Maanen, 1996) In this sense ethnography reflects an experiential approach to studying a phenomenon but the term ethnography also means "an account, written description of a particular culture - the customs, beliefs, and behaviour - based on information collected through fieldwork." (Harris, Forbes, and Fletcher, 2000). These two definitions reflect the duality of ethnography both as a method for collecting information and a way for analysing and reporting it. Ethnography therefore allows for successful accommodation of simultaneous research processes: living through the experience and making sense of it, framing it in convenient categories and narratives to be presented to a reader. In other words it makes sense to study emergent and unfolding processes with methods which allow for emergent and unfolding analyses. "The analysis of the data involves interpretation of the meanings and functions of human actions and mainly takes the form of verbal descriptions and explanations, with quantification and statistical analysis playing a subordinate role at most... [data collection] is unstructured in the sense that it does not involve following through a detailed plan set up at the beginning; nor are the categories used for interpreting what people say and do pre-given or fixed. This does not mean that the research is unsystematic; simply that initially the data are collected in as raw a form, and on as wide a front, as feasible. Most ethnographic research, however, has been concerned with producing description and explanations of particular phenomena, or with developing theories rather than with testing existing hypotheses (Hammersley and Atkinson, 2000:25)

Ethnography provides unparalleled opportunity for a researcher to join the organisational setting and to report on experiences from the point of view of someone who has experienced them first hand. Watson (2003: 1306) suggests that adoption of an ethnographic style of investigation is "almost inevitable" when it is desired to look closely at the practices of actual human beings, their emotions, values, interests, understandings, uncertainties and ambiguities. Constant exposure to the organisational life creates better opportunities for making sense of how and why others make sense of situations the way they do. Most important an ethnographic approach allows for certain aspects of culture to be studied which other methods have difficulties gaining access to: e.g. which things are silenced, how they are silenced and why, organisational boundaries (secrets from outsiders). These aspects are more likely to be noticed by a researcher over a period of time when their presence becomes a part of routines rather than a deviation from them.

Ethnographic research methods are still not very widely used in the organisational and especially strategy research but the last decade had seen an increase in their popularity. Smith (2001) cites a significant number of studies where a researcher was fully immersed from often prolonged amount of time in various contexts ranging from paralegal (Pierce 1995), to phone sex operators (Flowers, 1998). Even a larger number of researchers tap into ethnographic methods without "full" immersion and on more temporary basis (Chetkovich, 1997; Leidner, 1993; Kleinman and Kleinman 1996; Kunda, 1992). Smith (2001) claims that no other single approach was more successful in understanding the tacit rules, the controls and the complexities in work processes, especially those that have been labelled as routines. It was "reality-as-experienced" (Harper, 1992) that allowed researcher to rethink those processes. Although the number of ethnographic studies in work has been growing the accounts of the dynamic nature of strategizing practices are rare and few are the longitudinal and in-depth studies of the

strategizing process (Pettigrew, 2002)

One major critique of ethnographic style research has been the same as with case studies in general as discussed earlier in this chapter, the problem of generalisability. The position of ethnography opponents was summarised and analysed by Hammersley in "*What's wrong with ethnography? Methodological explorations*" (Hammersley, 1992). He concludes that neither empirical nor theoretical generalisation from either ethnographic or single case research is valid, because no strong argument can be put forward that a single case setting is "typical of some larger whole or aggregate" (ibid:86) and also because when it comes to theoretical generalisation "insight model leaves open the question of how we are to decide what there is about the situation studied is generally relevant". However, ethnography's validity does not stem from empirical generalisation, nor does it provide theories testable against "objective truth". The major contributions from ethnographic research are frameworks for understanding how one can make sense of situations and complexities to successfully act in them. This does not imply the only way of understanding a situation, but the way that *makes sense*. The validity of ethnographic research is achieved through credibility of its account. The results of the research are as true as the ethnographic account of the study itself. An ethnographic account of organisational research should go beyond description of situations and contexts and into explanations of how and why things develop the way they do. The validity of such an explanatory framework is best understood through the pragmatist truth claims. The main criteria for judging a theoretical development from a pragmatist stand is whether it puts the reader of such a research in a better position in making sense and acting successfully in situations of perceived similarity (for discussion see Watson, 1994 and Watson, 2003).

Ethnographic research methods very much depend on the relationship a researcher is

able to develop with organisational members. Ethnography provides an opportunity to make sense of processes against a background of events and personal involvement with situations that relate to these stories. Among everything else ethnography allows for observation and participation in situations where organisational members are less concerned with being studied and thus adjusting their behaviour accordingly. This does not suggest that such behaviour is totally avoidable with ethnographic methods, but that organisational participants would see it as a more common situation than for example formal interviews. This creates considerable problems of confidentiality and trust for someone involved in such studies. Apart from the legal and economic implications of exposing strategizing practices and knowledge of an organisation to a broader public there are as well moral dilemmas of publicising important, often critical information which was gained under an explicit or implicit agreement of secrecy. Watson (2003) offers his solution of dealing with such complex sensitivities which he labels *ethnographic fiction science* "it weaves a narrative out of the social scientist's research experiences in such a way that confidentiality and sensitivities vital to the gaining of that research material are fully respected and in such a way that the range of particular theoretical issues with which the writer is concerned are given empirical attention." This approach to ethnographic writing Watson (2003) believes can be the only form of reporting on strategizing activity that research subjects would be unhappy to see directly exposed for any reasons.

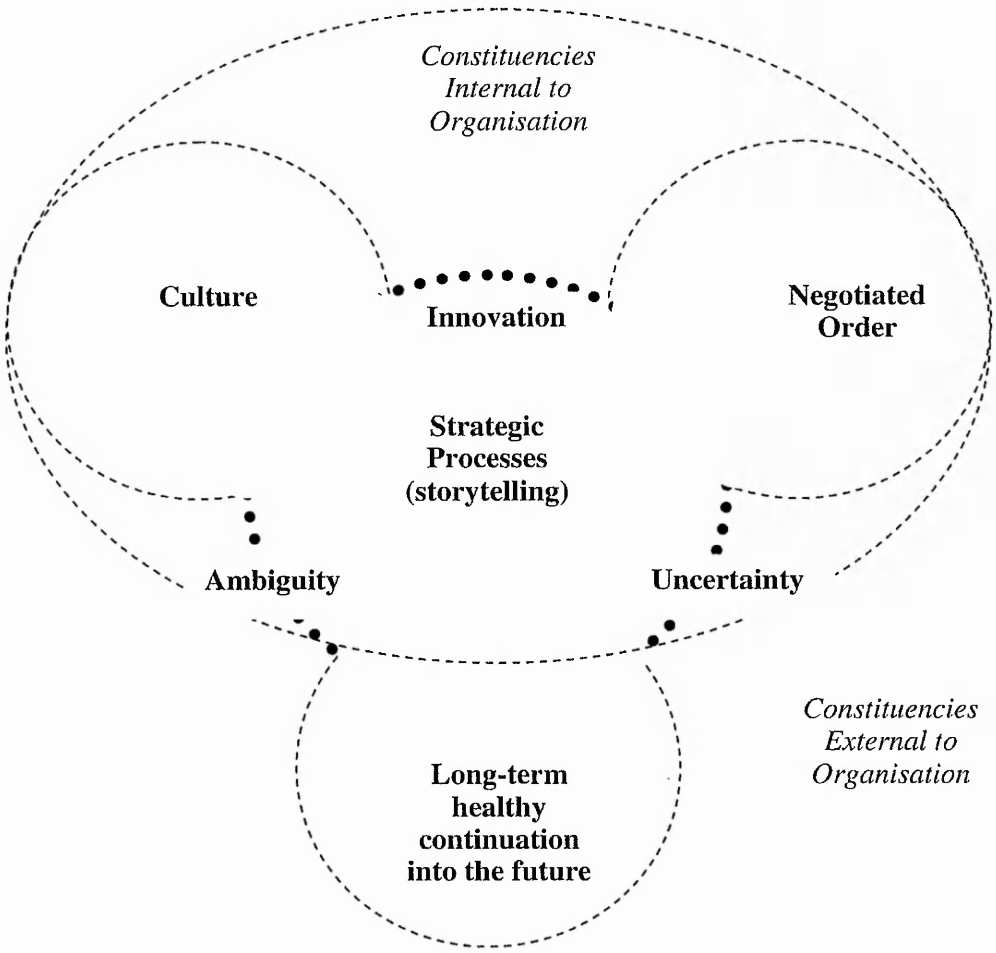
The present research project adopts an ethnographic fiction science approach to writing in order to protect identities of individuals involved in the study, their intellectual property and their right to privacy. At the same time all efforts are made to retain in the narrative as many observed behavioural and processual patterns as possible. The context of the original actions is changed only to the degree that the author believes is insignificant for making understanding how and why a particular pattern emerged.

Neither names nor monetary figures mentioned anywhere in this research should be taken at a face value but only as an indication of the presence of such subjects and their importance for the narrative.

3.6 Developing the conceptual framework

As it was mentioned earlier in this chapter this conceptual framework has been emerging throughout the duration of the project and is as much a result of structuring ethnographic experience as it has been a tool of such structuration. The conceptual framework (Figure 1) distinguishes between external and internal organisational entities in order to relate to various contexts of organisation from immediate to much broader ones. The understanding of organisation and its boundaries is based on the metaphor of a city and its city centre stressing that there is no defined organisational boundary which would be appropriate for any situation. Just like city's industrial, cultural, commercial and geographical centres might be different in size and location so are boundaries of organisation shifting depending what aspect of organisational life is in the focus of attention. Organisational boundaries encircle those entities with a high degree of involvement in organising practices of the company and which act in the name of the organisation. The separation into organisational insiders and outsiders is an arbitrary and very important process of both organisational sensemaking making sense of an organisation. The suggested conceptual framework deliberately omits any category of intermediate or middle context with the aim to make processes of inclusion and exclusion into organisation more theoretically apparent and also understand how these relate to other organisational contexts. This choice was also supported by the field work involvement in which the presence of a strong theme of belonging to the organisation with its *"us against them"* rhetoric was very noticeable.

Figure 1



3.6.1 Negotiated Order: the pattern of *how* things are

Adopting social construction methodology for this study also calls for adopting a concept of social order which is neither part of "the nature of things" nor can it be derived from the "laws of nature" but which exists only as a product of human activity, both in its genesis and its existence in any instance of time (Berger and Luckmann, 1967). The concept of *negotiated order* originated in the symbolic interactionist tradition of theorising to relate to the outcomes of social interactions and trading of meanings within organisational setting, which allow its members to make sense of themselves, their actions and the world around. It is the order which is not designed or

imposed by anyone but the pattern of activity which is constructed socially by organisational members (Watson, 2001) and which in a way is a snap shot of how generally interactions happen in an organisation at any given time. Negotiated orders are not stable and are being constantly renegotiated as organisational participants introduce new resources (both material, and non-material) in their negotiations. Negotiation and renegotiations of orders in organisations occur in contexts where ambiguity is a norm (March and Olsen, 1976) and organisational members manage ambiguities through enactment and re-enactment of the organisation and its context by interpreting actions and acting on such interpretations. In his article in *Encyclopaedia of the Social and Behavioural Sciences* on negotiated orders in organisation (Watson, 2001a) looks at the criticism of the concept which comes from failing to ground analysis of processes of interaction in their wider political, structural and historical context (Day and Day, 1977). He concludes that the concept could have had made a more significant impact on the field of organisational research however "if the significant insights which it offers are incorporated into broader perspectives which link activities at the intra-organisational interactional level to wider societal patterns and processes, then it has considerable and continuing potential as a device for understanding organisational processes" (Watson, 2001a). The proposed conceptual framework is set to address how processes of negotiations are embedded in various level of context.

Negotiated order as used in the suggested framework is categorised as a pattern of how things tend to work in an organisation as a result of complex on-going negotiations which are grounded both in internal and external contexts. In many ways negotiated order is the outcome of all interaction processes of organisational members, and as such, from a process informed perspective it "is" the organisation itself and also its organising. While negotiating such orders organisational participants draw on various

resources and relate to a system of values which is appropriated in their organisational setting, and allows for moral judgement of what is good and bad, important and unimportant, right and wrong. The concept of *culture* was introduced into the framework next to negotiated orders to make sense of why orders have to be renegotiated the way they are. Culture in a way is a price-making domain for resources being traded in negotiating orders. If negotiated order provides a picture of *how* things are, then culture represents a source for answers to *why* things are the way they are. The relationship between the concepts of negotiated order and culture does not imply existence of any one directional causal link between the two. They should be seen as mutually enabling concepts rather than a pair of cause and effect elements.

3.6.2 Organisational Culture: the pattern of *why* things are the way they are

The concept of organisational culture as used within the suggested framework is not an attribute; it is the emergent result of a dynamic process of social construction, of continuing negotiations about values, meanings and beliefs among the members of that organisation. Negotiated order and organisational culture are similar in that they are both conceptualised as emergent outcomes of social interactions of organisational members within immediate and broader social contexts. The difference is set to be in the answers that organisational members provide themselves and each other through the outcomes of such negotiations. Negotiated order relates to *how* people tend to act in the organisation while culture relates to *why* people act the way they do.

E.g. "so far we have never use old templates for new projects" and "we value novelty". The first pattern helps to make sense of how to act on a new project, while the second helps make sense why things are the way they are when it comes to a new project. It does not suggest that the pattern in action is the result of the culture, the relationship can work both ways: "We like novelty, and therefore we never use templates" or "We

never use templates, you can say we like novelty". In this example both the culture and the order are mutually supportive and make sense through references to each other. (Source of the quote)

The processes of social construction which produce negotiated order and organisational culture are linked to a broader context of external cultures and negotiated orders outside of the organisation. Individuals go about fulfilling their personal agendas within multiple contexts, and organisational context being just one of many. The human beings who involve themselves with any given organisation all have their own purposes and ... their own strategic projects (Watson 2001: 172) Actions and sense making processes of organisational members are informed and influenced by a myriad of interactions they have outside of a particular organisational context. Who people are outside of the organisation is very important to how and why they act within the organisation Watson (1994; 2001).

3.6.3 Organisational continuation into the future, and ambiguity and uncertainty

To make sense of how processes of social construction in various contexts relate and interconnect the concept of *organisational continuation into the future* is introduced into the framework. There are several reasons for making such conceptual choice. The future of an organisation is not certain; it is inherently uncertain and ambiguous and therefore is open for multiple interpretations which might be perceived as less or more favourable by entities external and internal to the organisational context. In other words, organisational future represents a potentially different negotiated order of the organisation itself as well as other orders in which organisation under study is brought into processes of social negotiations. Examples of such other orders can be orders of families of organisational members, organisations of suppliers and customers or any other in which organisational existence assigned any value. To continue into the future

an organisation has to participate in negotiations with these external entities to internalise necessary resources. In negotiating organisational future the interplay between immediate and broader social contexts become more apparent. A manager of an organisation when relating to external investors can be made sense of as a part of internal organisational context. On the other hand the same manager when negotiating his working hours and pay can be seen as an external entity with whom the organisation enters in negotiations to obtain necessary resources, in this case his labour. Extending negotiated order into a future domain is difficult because of the larger number of negotiating entities many of which are external to the organisation. These often have different and sometime conflicting enactments of organisational future, which increase the difficulty of maintaining organisational negotiated order relatively unchanged.

The concept of *organisational continuation into the future* is not a thing, or plan or a design but patterns emerging out of social construction processes grounded in immediate and broader social context, about understanding of organisational future. It is a source of meanings for organisational members about *how* things *will* tend to work in future. However, unlike negotiated order and culture on which they can reflect by living through them, organisational continuation into the future cannot be experienced and confirmed this way which means there is more place for uncertainty.

Uncertainty is a degree to which organisational members perceive it to be difficult to make sense of how current negotiated order will change in the future, the degree to which an understanding of future events is unclear or conflicting. Extending negotiated order into the future can be problematic for reasons of cultural beliefs shifting in light of new alternative futures. These new explanations of future might have an effect of what is perceived possible, positive and otherwise. In addition to the uncertainty about how things will be there might be difficulties in making sense of what it means, why it is

good or bad. The degree to which the meaning of future events is unclear will be referred to in this research as ambiguity.

To cope with uncertainty and ambiguity about the future of organisations certain members of organisations – strategists, are charged with the task (formally or informally) to enact fictional futures, into which organisation healthily continues. These fictional futures are accounts of how things will be providing "a story, and an embodiment, that builds on the most credible of past synthesis, revisits them in light of present concerns, leaves open a space for future events, and allows individual contributions by the persons in the group". The strategist's task is "an imaginative one, a creative one, an art" (Smircich and Stubbart, 1985:730) and the best work of strategists inspires splendid meanings (Peters and Waterman, 1982)

3.6.4 Strategic story making – the pattern in organisational patterns

The three elements of the framework: negotiated order, culture and organisational continuation into the future help to make sense of *how* things tend to work in the organisation, *why* they tend to work this way and *how* things *will* or might work in the future. All three categories conceptualised as patterns of activities emerging out of social construction processes in the organisational internal and external context. These patterns are not isolated but are tightly connected and overlapping, shaped and formed by references and interplay with each other which are both enabling and restraining. Any change in any one of them results in social processes of re-enactment of the other ones while subsequent changes in these other categories would be brought again into discussions and negotiations about the one which caused the other two to be re-enacted first place. These processes are ongoing and never-ending.

Strategy which is also conceptualised in this framework as an emergent pattern is

different from the other categories as it is *a pattern emerging out of pattern.* Strategy helps to understand and make sense of *how* and *why* we get where we get and achieve what we achieve. Strategic processes are processes which weave together the fabric of organisational life into a story of an organisation. Strategic processes are meant to address and resolve conflicts between current negotiated order, culture and current understanding of future to enact favourable future by constantly introducing changes among the three and maintain dynamic balance whereas uncertainty and ambiguity are kept at levels tolerated by organisational members. Strategy can be seen as a grand story of the organisation and strategic processes are processes of making this story by relating various themes in a sense meaningful to organisational stakeholders.

3.7 Effective strategy-narrative: balancing credibility with defamiliarisation

The units of analysis in this research are strategic processes in the organisation. The category of strategic processes implies that there are also non-strategic processes. It is important therefore to differentiate between processes which will be considered strategic and otherwise. In this study strategic processes are defined in relation to the concept of strategy itself as the processes which form strategy. Therefore, the concept of strategy is essential for understanding the mutually constituting relation between strategy and strategic process concepts. In line with the chosen constructivist methodology this work adopts a processual view of strategy and builds upon two approaches to this phenomenon. On one hand the definition of strategy used here is based on the emergent strategy concept developed by Mintzberg (1994), that of "a pattern in the stream of actions" to be seen emerging over time. Mintzberg's definition lacks any reference to the perspective from which such a pattern can "be seen". To avoid the objectified character which the third person perspective might suggest in this case the concept of emergent strategy is broadened through inclusions of narrative approach to strategy.

I use the terms narrative and story to refer to thematic, sequenced accounts that convey meaning from an implied author to an implied reader (Barry and Elms, 1997). This definition possesses elements of both trends in defining narrative: the structuring view that places events in relation to time and subject matter (Scholes, 1966), and communicative perspective where readership and interpretations are of equal importance to a story's structure (Iser, 1989). It is the notion of implied author and reader which should allow for various orders of sensemaking and analysis to be both linked and distinguished. This paper is a narrative conveying meaning from me as a researcher to readers. And it tells a story of a company and *stories made there* for those significant to the organisation. This thesis' narrative should be seen as sequentialising

sensemaking device (Quinn, 1992; Weick, 1995). It is therefore prerequisite that at any point of this research account there is clarity about who is voicing a narrative.

Narratives convey meanings "by noting how various parts: human action, events and etc. function together as a whole, thus providing a view through which various phenomena are set in relations to each other." Barry and Elmes (1997) in developing a narrative view to strategic discourse stress that narrativity emphasises the simultaneous presence of multiple, interlinked realities and therefore is well positioned to capture the diversities and complexities of strategic discourse. Seeing strategy also as a type of narrative allows extending the definition of strategy as an emergent pattern by specifying the authorship of such observation. In light of this, strategy is defined as a pattern to be seen emergent by a story-maker and conveyed through his/her story to an implied reader.

To single out strategy among potentially multiple patterns which can be seen as emergent, the definition of strategy needs to draw distinction between what will be considered strategic and what is not. Whatever approach to strategy one takes it almost without exclusion relates to organisation as whole, its relation to the world and its long-term continuation into the future (Pettigrew, Woodman and Cameron 2001). Thus *strategy can be conceptualised as a pattern to be seen emergent over time by a story maker in the stream of actions that are taken in the name of organisation to enable its long-term healthy continuation into the future.* The criteria of a *healthy continuation* lies in the discretion of story-maker (narrator/researcher) and might at extremes even include an option of organisation ceasing its existence if discontinuation is perceived to be the healthiest of options. Having adopted a definition of strategy it is now possible to conceptualise strategic processes as processes which constitute the pattern of strategy.

Story-making and narratives are processes of relating meaning and while readers of this research would employ their individual sensemaking schemes in appreciating it, the following conceptual framework is suggested to make sense of the stream of actions from which the organisational strategy story emerges and which it also tells.

Strategy as a narrative approach was discussed and argued for in this study earlier in this chapter. However, more attention needs to be given to the conceptualisation of processes of making strategy to address issues of what makes a good story-strategy and for this purpose the concept of *story making* is introduced in this study.

The concept of story making is different from story telling in that it encompasses such processes as acknowledging the story, being in the story, choosing to relate to it or develop it, or act on it in a way which becomes part of this story. Story making compared to story telling expresses the importance of a variety of influences that contribute to story development, influences and processes which can manifest themselves in a non-rhetorical way. In other words story making is story telling together with story-acting in which both processes are not consecutive but simultaneous. Strategy as story-making also reflects the assumption that strategic processes are not initiated only by those formally in charge of strategy development (Watson, 1994; Hatch, 1996) who "tell" the story, but also by many others.

The adoption of concepts of strategy as a narrative and strategic processes as processes of story-making makes sense to understand what makes a good story and a thus good strategy. According to the model developed by a member of Russian formalist circle Shklovsky (1990) *credibility (believability) and defamiliarisation (or novelty)* together make a good story. Applicability of this model for the field of strategy research has been discussed in detail by Barry (1997). He claims that because of its relative

simplicity and borrowing from it of other narrative frameworks it can be applied to any kind of narrative which is especially helpful considering that strategic stories can adopt a variety of forms. These two properties form "a kind of dialectic" as a degree of one usually accompanied by a degree of another one and strategists are involved in constantly resolving arising contradictions, attempting to maintain the dynamic balance between the two.

Acting on a strategy often if not always demands a large amount of resources therefore those signing up to it expect it to be very believable and credible. Credibility is achieved by making references to what is already known, experienced or believed to work. In a fictional strategy story, credibility can be achieved through objectification of such beliefs and experiences through skilful manipulation with voice and perspective (Hatch, 1996) of the story, ordering and plotting strategy along the line of an existing success story (Barry, 1997) and similar techniques. In any case, whatever combination of methods is employed it is negotiated order and culture that provide story-makers with the basis for credibility of arguments. If the culture of an organisation puts significant value on technological superiority then organisational stakeholders would be more willing to accept rationality of the story which is based on the same belief especially if such belief is objectified to a self standing truth. In similar fashion negotiated order adds to the credibility of the story when its elements extend into the future following with the assumption that things can be done this way because it is the way they are done now or known to have been done before.

Defamiliarisation in Shklovsky's (1990) scheme is an attribute of an effective narrative and refers to novelty and distinctiveness of a narrative. Novelty is created through challenging assumptions and outcomes of enactment and social construction of negotiated order and culture. It is through novelty and defamiliarisation that new

versions of future become possible to imagine.

3.8 Innovation as a strategic process

Novelty is the source of variation, prerequisite of change, it assumes that things can be done differently or there can be different attitudes towards things than currently held.

As novelty gets introduced in the current organisational order there will be a need to enact or re-enact organisational culture in a way which would adopt a favourable attitude towards the novelty. Without such re-enactment of culture the change in negotiated order through introduction of novelty would make no sense to be sustained or taken into the future. In a similar fashion, novel development in organisational culture would then be brought in renegotiations of organisational order so that it would make sense to do things they way they are done. For novelty to gain credibility within an organisation and to become part of the new, renegotiated order it has to be in line with organisational systems of meaning, with its culture; and it is this process of making it complacent which is defined as process of innovation. This definition of innovation which centres on novelty and its usefulness is very much in line with concepts of socially constructed innovations. Innovation within firms occurs through processes that are autonomous and emergent even as they are shaped through processes that are strategically introduced by top management (Burgelman, 1983; Mintzberg, 1979; Noda and Bower, 1996).

Innovation as such does not eliminate uncertainty or ambiguity about organisational future, nor does it create it out of nothing. It allows the substitution of one set of uncertainties and ambiguities about the possibility of a particular enactment of future with another set about what this future might mean for them. The innovation process is thus a strategic process as it allows for a new fictional story of future, which is not in conflict with renegotiated order and organisational culture, thus helping to maintaining a dynamic balance among the three.

This view and approach towards innovation also suggests that no particular novelty or a particular innovation is sustainable for a long time as "any defamiliarising perspective or device, no matter how initially exciting and captivating, becomes familiar, mundane and tiresome with time" (Barry, 1997:437) Any novelty would either become innovation and then be incorporated into negotiated order, the normal way things are done in an "organisation", or would be left outside of processes of enactment lacking the necessary reason to remain.

3.9 Conclusion

The conceptual framework offered for this study is both an outcome of the research as well as its tool. It was emerging and tested and enacted throughout the project and is presented at this point in the account for the reason of convenience and structure of the thesis. Although supporting arguments and theoretical underpinning of the suggested conceptual framework is given at this stage there will be further references in the analysis of the ethnographic experiences to justify and support such choices.

Adopting the concepts of organisational order and organisational culture which might be different from orders and cultures outside of immediate organisational context also suggests that strategy as a story might be made differently for internal and external entities and that different individuals make sense of it in different ways as they place it in a broader context of their own personal agendas and strategies. The suggested framework I believe would be helpful to make sense of strategizing in the company. In a way this project is about telling a story of how successful strategists are in telling their stories and how they go about enacting what they enact and with what effect.

The following chapters present the description and analyses of my personal experience as a researcher and a member of the organisation I was studying. My experience is made sense of with the help of the suggested conceptual framework and also aims to justify this particular choice of concepts as being helpful in analysing strategic processes and process of innovation in the organisation. The analyses are structured into thematic stories which constituted large and significant parts of organisational strategy in the organisation.

Names and references to the dates and places of the events have been changed to respect privacy and anonymity of the participants however all efforts have been made to

preserve the dynamics of processes and the relevant context of such processes.

Chapter 4: Organisational Background and the Strategic Story of Survival

4.1 Background on organisation and industry

Traditionally a case study about a business organisation begins with a description of its industrial context, background of the organisation itself and major players and entities involved. However instead of providing a description of the company on which this research project is based I believe it would be more insightful to look at how the concept of organisation and its environment has been enacted from the very beginning by organisational members.

Prior to my first contact with the organisation I had very little knowledge either of the company, the industry it operated in or anything regarding its environment. I was not even sure it would become the subject of this research project and all I new about the organisation was that it was looking for an associate from academia with a knowledge of business concepts and models to facilitate their process of transformation from an R&D organisation into commercial organisation.

It was a situation of testing grounds for both sides as BioDetect members also had no information about me apart form the copy of my CV. The story of the organisation has to be told by me covering all aspects of organisational life with explanations of how and why the organisation operates the way it does. I believe it is useful at least for a number of reasons to analyse this first instance of my experience of organisational story telling using the suggested framework. On one hand it is a rare occasion when the story can be told in holistic manner, in one go. Secondly it sets a stage against which any further changes to the organisational story can be evaluated. Thirdly it also provides a broad context description and background information on the company, industry and technology

Another distinctiveness of the first story telling is that its effectiveness can be analysed from the point of view of a listener rather than participator, which means the story has to be internally consistent and plausible mainly in broad societal context references rather than having to relate to enactments of the more immediate organisational context. In other words at this instance it is more about *story telling* rather than *story making* which makes possible later comparison of this *story-told* to the *story being enacted* in the company by the organisational members.

It is important to keep in mind that prior to any of my involvement with the company the strategic story had already been in the making since the organisation came into existence. And although this is the starting point for research analyses it is certainly not the beginning of the organisational story but rather just one of many versions which describes *how* and *why* organisation was the way it was at that moment.

The first encounter I had with BioDetect Ltd was at the interview I attended for the position of marketing and research associate through the university SIS scheme ('Stimulating Innovation in Small Companies' -- an EU funded scheme designed to encourage collaboration between universities and companies to promote transfer of technology and know-how from the academic sector into industry). Calvin, BioDetect's managing director, was the first person I met from the company. He was extremely friendly and appeared to be very interested in the meeting and had a large notepad and a pen ready from the start. He created an impression of a diligent student ready to take notes and do further research on any information he receives. There were three of us during the meeting including John, university co-ordinator of the SIS project, but Calvin was certainly the one co-ordinating the event. He asked permission to set up the agenda and offered it at once as we nodded in agreement.

Calvin: -- Let me start by giving you some background information on BioDetect and then we will play it from there. In BioDetect we are all scientists not businessmen and that is one of the reasons why we need someone to help us take our product to the market to make it commercial. We produce kits which allow detecting how cells proliferate and also how they die. We are selling now to scientists at universities and research centre labs and we are trying to get into a different market.

I do not know how much you know about how pharmaceutical industry works. Previously, drugs have been designed by scientists who would analyse what they know about cells and compounds and try to come up with the structure. Now all large pharmaceutical companies use computers and robots for trial and error processes to identify leads. Combinatorial chemists who work for large pharmaceuticals can now synthesise millions of different compounds which are then all tested against libraries of targets. (He grabs his notepad and starts drawing a scheme very fast as if he has done this many times before). This is known as High Throughput Screening, HTS, and involves sometimes hundreds of thousands of compounds. All new molecular are tested for activity against selected targets to identify what we call 'hits'. This is the first screening. Then the active compounds are made available for scientists who work in different therapeutic areas like cancer research, or Alzheimer disease research who analyse them and suggest for second screening to identify 'leads'. The number of hits entering second screening is normally a couple of hundred. This is the second screening from which leads are identified. The leads are then taken for leads optimisation back into therapeutic area research teams. This is the analytical part of work in which compounds are modified to be most effective against targets of a particular disease. Optimised leads then will be tested for toxicity to see what effect they have on different cells. This is the third screening in which only few compounds are tested. The

compounds which will pass this testing will be then taken for animal testing and then clinical testing in humans. Clinical trials are very expensive and are heavily regulated. The whole processes of drug discovery from first screening to product launch costs about 1 billion dollars and takes 10 to 12 years. As you understand, the cost of a mistake escalates as you get closer to the end of the process. The idea is to eliminate false targets as early in the discovery process as possible.

We try to convince large pharmaceuticals to use our kits in third screening. The amount of testing they do in just one batch is a hundred if not a thousand times more than in independent biotechs or university research centres. And we also try to convince them to use our tests in second screening which would mean much larger orders for us and will save them a lot of money.

We are a very small and innovative organisation and it helped us to develop the technology but now we also need to get some structure to get this innovation to the market. In pharmaceutical industry it is very difficult to introduce new methods and new products because the cost of making a mistake is so high, but once you get someone to accept it then it almost becomes a platform that everybody uses.

Alexey: -- So the potential market is huge and expands like a chain reaction but the initial inertia of acceptance of new technology is very strong? It reminds me of the software market for operational systems. There as well once something proves very successful it then becomes industry standard and its position is very difficult to challenge. Maybe we can use examples from this industry to understand what options are available for us.

Calvin: -- This is exactly why we wanted someone from academic side to join us. As I

said we are scientists and this is all very new to us. There is a lot of uncertainty about which way things will develop in this industry. Here the winner takes it all. One successful drug can generate billions in sales every year and pharmaceutical companies are pushing for new ones very hard. On the other hand the cost of failure is hundreds of millions so they are very careful about validity of all evaluation processes. Most pharmaceutical companies depend on one or two drugs that generate the bulk of profits and for many of them the patents will soon expire. Most compounds get patented in early stages of the discovery process and then it is a race against time to get it to the market and start selling before the patent expires and generic producers will force prices down. Shortening drug discovery process by a single day can mean an extra million or two in sales for pharmaceutical companies which means they are prepared to invest large amounts if they believe the new technology will work. Successful new technologies spread among big pharmaceutical companies very fast once one of the major companies finds them useful and successful but it takes long time to convince anyone to try it in the first place.

John: -- It is not one of those problems that you can go and grab a book about and learn the answer is it? How do you go about marketing something that everybody wants tested but nobody wants to test?

Calvin: -- Well, it was part of the reason why we want someone with university business degree to get involved and I hope it will be also interesting for you from the research point of view to work with us. By the way (Calvin was addressing me this time) from your CV I understand you have tried many things but it appears you had no experience in biology or related sciences, will you be comfortable working with all the scientific language and vocabulary involved? There is, of course, no need for you to have a degree in it but I believe it always helps to understand the technology behind the

product to make marketing and promotion more successful.

Alexey: -- I was very interested in natural sciences in high school and seriously considered a career as a physicist before choosing economics and business in the university, also biology was a compulsory subject in my high school, apart from this I have no formal experience in biotechnology. But I would be very willing to learn about the technology to be able to understand and hopefully speak some of the 'scientific language'.

Calvin: -- What are you thoughts about our company so far from what I have told you?

From the point of view of story telling the last question Calvin asked was extremely important. So far the story covered mainly the state of affairs in the industry from a technological perspective. This view as I later found out was widely shared in the industry and often referred to in most industry publications. It is a description of a relatively remote and wide organisational context and was told through the most common discourses of the industry at the time. Providing the rest of the story is told in consistency with assumptions and truths presented so far it would gain plausibility and credibility by those subscribing to such views of the industry.

So far the description of the company itself is very vague and largely open for interpretation, however before moving on with the story where it deals with more immediate organisational context Calvin invites John and myself to participate in this story making by revealing our assumptions and expectations of what is going on, and what scenarios of the future we identify so far and what clarification we might need.

On the other hand my agenda at the time was to convince Calvin I could make a valid

contribution to the company in the process of transition to commercial operations and my answers were largely informed by a desire to show my ability to come up with ideas which would facilitate this. From the information I was given I could not give any convincing interpretation of what a successful future of the company could be so I ended up speculating about ways of working towards a better future for the company.

Alexey: -- It certainly looks like an interesting challenge for me, both personally and professionally. I can think right now of some points we can start exploring to get access to the market segment of large pharmaceutical companies. I would probably try to make sense of who the decision makers are in such companies and what their motivations and concerns are (Calvin started taking notes in his notepad and was doing it all the way till the end of the interview). If we can make them "shine" in their jobs by taking on our technology this might be our ticket to get in. I would probably want to explore if there is any relation between the academic bio research, biotechs and pharmas.

Calvin: -- I can tell you now they are all connected but not in a direct way. Scientists in pharmas constantly monitor articles published by academic researchers, many university researchers and professors are also founders or partners in biotech companies. Pharmas depend on biotechs to supplying them with R&D in areas for which they do not have resources in house. So I can tell you they are connected.

Alexey: -- In this case we can probably look if we can use the relationship BioDetect has with universities and biotechs to send relevant messages to people in large pharmaceutical companies.

This is one example of many occasions when the story was made and told through the dialog. In the absence of extensive information about each other Calvin and I are

constructing an understanding of the environment which can accommodate both of our agendas. I express my desire to become one of the organisational story makers by developing on the story told so far while Calvin uses my suggestions to reinforce the point about the great possibilities existing for BioDetect in this industry. On one hand in the environment as we enact it important entities such as large pharmas can be manipulated through access to other entities such as Universities and biotechs. On the other hand it is an environment in which BioDetect has the ability to influence indirectly its potential customers – large pharmas.

It is important to understand that the story we are making serves at least two purposes: to generate interest for each other towards potential co-operation and commitment as a result of the current discussion, while it also outlines new ways of enacting a more desirable organisational future.

It is rather difficult yet to analyse the effectiveness of these first themes for the organisational strategic story as we are still discovering how things are and what can be deemed possible. So far the story of organisation as presented during the first meeting is one of *a* biotech company within the environment we are enacting. The limitations and constraints to which our story has to confirm so far are mainly those which existed in the external context, enacted by the three of us for BioDetect. The story we are making at the moment is by and large the story *about* BioDetect as opposed to the story *of* BioDetect, although there are certain references to its culture and organisational order.

Alexey: But my other challenge I was talking about before is to understand how companies manage to survive in the environment which seems so uncertain and unpredictable. How do you cope with stress about not knowing if results of your years of work and investments will pay off, considering, as you say, there is almost no middle

ground between 'the winner takes it all' and 'another one bites the dust'?

Calvin: -- We have fun in the process (Laughs)! In this company we enjoy doing the things we do and we try to do things to enjoy them. I as a managing director want to believe we have the opportunity to be relaxed about many things unlike many other more formal companies.

Alexey: -- Well then it is yet another great attraction for me to take on this project.

Although the story might appear to be relatively short it possesses many vital characteristics of an effective strategic story. Calvin has certainly told the story of BioDetect and pharmaceutical industry not for the first time mainly because it works. I would hear this story almost unchanged later on a number of occasions and would learn to tell it myself. It was the story that made sense and the story which was very engaging.

Calvin's story about BioDetect is strategic as it clearly outlines how the organisation can continue into the future. There are two interpretations of future (triumphant win and total failure) both of which are probable and this creates intrigue and excitement. One of the interpretations of the future is very appealing as it provides opportunities for almost anyone relating to BioDetect to benefit from it personally, be it investors who would share in its financial success, employees who would have opportunities to develop their careers as the company grows, customers, who will save money, partners who helped it happen and can enjoy a reputation of being good helpers, and even business researchers, who would have an interesting case to report.

The credibility of the story is achieved through extensive references to explanations of how things are done in the industry now and how many of those processes will continue

into the future unchanged. Many elements of the story are so significantly large that their presence in the story makes it almost unshakeable in the short run: '*Billions of dollars in annual sales*', '*million dollar costs of a single day delay*', multinational companies, '*thousands and thousand of tests*'. These categories are not likely to disappear or change dramatically in an instance, things *will* be done like this for some time, and Calvin's interpretation of the future builds on these large anchors of stability.

The whole story is told in two discourses, the scientific (biotechnology and pharmaceutical research) which is then translated into monetary terms of sales, revenues, costs, losses, etc. Switching between discourses achieves two outcomes: it reconfirms in two different sets of terms how the things are in the story and also adds to the credibility and believability of the story. Calvin stresses on a number of times that he and everybody in the company are scientists and do not have background in business theory or business models, yet his story is told in business terms as well. He invites John and me to make conclusions and interpretations in business terms that he lays in front of us at the same time leading the story within the scientific discourse. Calvin involves us in making the story in business terms as he withdraws from being an authority on business issues and thus leaving this role vacant for us. It certainly added credibility to the story from my perspective as I was given an option to pass my judgement about making sense of the organisation and its environment. However, Calvin does not allow the story to be made sense of without him influencing this process. He uses his position of authority in matters related to scientific discourse of the story to influence where attention is being directed. And although at this stage John and I know almost nothing about the BioDetect's product we are getting convinced that at least from the business point of view there is a *genuine* opportunity for it in the market.

Although the future enacted in Calvin's story has many familiar elements and develops

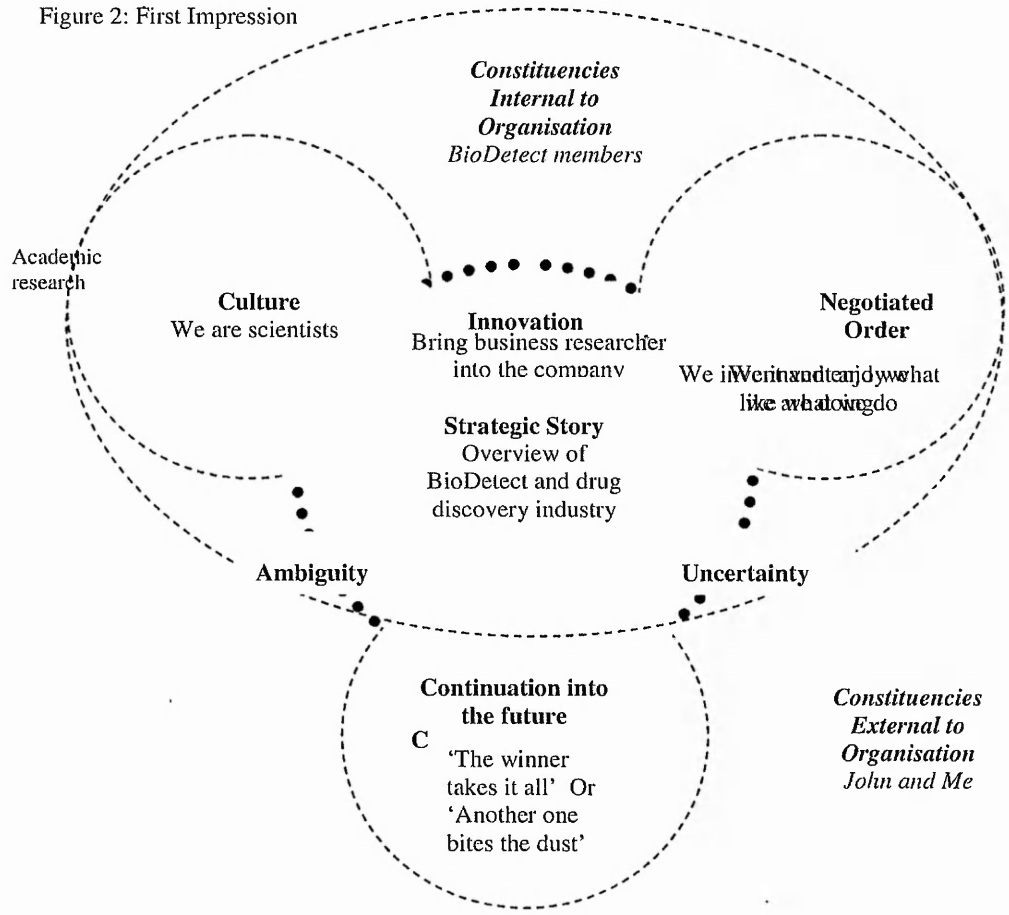
on the assumptions about the company and its environment that we believe to be true at the moment, this story of the future has a significant element of novelty whereas BioDetect is portrayed as one of the potential significant (in business terms) players on the market and even supplier of a platform-like solution for a multimillion dollar research industry segment. This is certainly an exciting development for anyone having interest in the company however it also raises a number of questions about how it can be done if this can be done at all, and, what would it mean for the parties involved. Current negotiated order cannot accommodate such an outcome nor does this future appear realistic in an organisational culture that emphasises scientific expertise as opposed to business expertise, which values non-formal approach to work and which is oriented to developing ideas rather than products. Calvin's interpretation of BioDetect's continuation into the future raises issues of uncertainty about how it can be done considering current activities and resources available to BioDetect. It also raises issues of what would it mean? Does it mean that commercial orientation becomes more important than research orientation, that 'small and innovative' might not be as good as 'large and financially secure' and why would organisational members want to change all these? There is both uncertainty and ambiguity about hinted interpretation of BioDetect's future, initially there is no clear understanding of how things would be done and what it would mean for parties involved: whether the changes necessary to achieve this future will be 'good' or 'bad', would the outcomes be worth the change and similar issues.

Things at BioDetect would have to be done differently from the way they are done now for this novelty to be enacted in the future. The current order in the company would have to be changed in such a way that is perceived helpful and useful for making a new desirable enactment of the future. Calvin's idea about changing the current order in the organisation is to introduce a new member of the team with knowledge of business

theory and business models to help further reshaping of the organisation in the direction of making it more commercially successful like the one in his interpretation of the future. However to achieve this Calvin needs to convince those with relevant resources that the idea of bringing them in is a good idea.

According to the conceptual framework (see Figure 2) adopted for this study this new development can be made sense of as a process of organisational innovation by which both organisational order and organisational culture are renegotiated to address and reduce uncertainties related to the new interpretation of future, and also in such way that the new patterns of culture and negotiated order become mutually enabling.

Figure 2: First Impression



The primary audience for the introduction story during the interview is me and the novelty makes the whole story interesting for me as it provides an interpretations of the

future on which I would be willing to act from the position of my own personal agendas, such as, for example, academic research interests, or potential interest in possible employment with BioDetect or the value I assign to being involved in such illustrious success story.

The story of introduction has one main difference from most of other strategic stories made in BioDetect: *it deals predominantly with the environmental context of organisation revealing very little of how and why organisation wants and will be able to capitalise on opportunities believed to be present in its environment, and with what effect.* Like an introduction to a book it reveals some of the assumptions and context in which the story will be developing, also advertising the story's intrigue, making the audience for which it is meant to want to learn how and why things will develop. It is a story of attention getting, but the story of action, the strategic story, would have to address many more uncertainties.

4.2 Strategic Story of Survival

The first period of BioDetect's organisational life was centred on organisational survival as one of the main resources available to the organisation so far was about to dry out in some foreseeable future and the strategic story would have to be made to enact another successful future for the company in which government funding would not be a major financial spring. The story of survival is a difficult story to make because of its dichotomy in searching for *how* this survival is achievable, while keeping commitment of organisational members and *significant others* through managing uncertainty of *why* they should work towards the solution for survival and survival itself. In BioDetect of that time the survival story was made along the lines of organisational themes which allowed managing those *why's* and *how's* and one of those themes was the theme of equality which I can best label as '*We are in it together*'.

4.2.1 The theme of equality in organisation: 'We are in it together'

Calvin: -- I am going to be boss and I am saying we need another kettle! Mike, can you please get one when you'll have time?

Mike: – Bugger off! (Pretending to be angry and then in a very calm and friendly voice) Yea, sure I'll do it.

Calvin: -- Thank you and I will be good and take the bin out.

One of the very first impressions of BioDetect that I got was the impression that there was a managing director, but there were no subordinates at all, at least for a long while.

One middle-sized room with open design, three tables, some chairs, two computers, book shelves, coffee table and a storage place was pretty much all that met the eye. There were three of us in that room: Calvin, Mike and myself: Calvin was the *managing*

director and we were *colleagues*. The question of job tittles was rather confusing and references to it were avoided wherever possible. The concepts of '*being on a particular side of the company*' was used when we were forced to introduce ourselves or one another.

Calvin: -- (Introducing us to one of the visitors from the local business development agency) Please meet Mike and Alexey. Mike manages it on the administrative and logistics side of the company, you can say he runs this place and Alexey joined us through the university link to help us on the marketing side of things.

The notion of us being '*on the side of things*' however was used mainly to help outsiders to make sense of who was who in the company. Within the organisation the notion of *sides* was blurred even more, with the exception of some very specific tasks *no one HAD to do anything* specific, but *everything HAD to be done* and it was appreciated and noticed by others if someone was doing it. Mike's specific task was to manage company's communication by being a gatekeeper through whom most incoming mail, telephone and often e-mails have been getting to the rest of us. He was also in charge of managing all paperwork flow in the company by maintaining the filing system, keeping track of deadlines and exercising control over them, taking minutes at meetings and scheduling events and making operational plans which kept the office and workflow going. I had difficulties in making distinction between the tasks that Mike was formally charged with doing and the ones he was volunteering to do anyway, as it was not known to me and I had doubts that it was known in specifics to anyone at all.

My task for the first couple of months was to get to know the field, to learn about company's technology, markets, environment and hopefully 'to come up with a *strategy for the company*' and how to market company's products and to make it successful.

This was the 'only' task I had, the rest was volunteering.

Calvin was in charge of *'everything else'*, but mainly representing the company for the outside world and negotiating on behalf of it with clients, potential clients, investor, potential investor, government officials and everybody else. Within the company Calvin was the final reference point for the issues and tasks that no one else was volunteering for. The order in the company was very little influenced by formal action or guidelines, the separation of tasks and responsibilities were to a very large extent open for negotiations.

Below are several typical examples how the story of equality was made and negotiated. The first example is a story of a garbage bin, it is a story about how orders were negotiated about sharing workload, responsibilities and expressing appreciations.

4.2.1.1 About the bin: Negotiating organisational order

As with many things at BioDetect at that time emptying the bin was nobody's responsibility but nevertheless it had to be done. This task was also the one that no one was feeling very excited about doing. Although it was mainly bits of shredded paper and the occasional tea bag in the clean plastic bag the task had a stigma of being something very unpleasant and unclean and as such something to be avoided. I had noticed the beginning of the negotiation processes about the bin when Mike raised the issue that it was a task that needed doing and he did not mind doing it from time to time but he was not the only one there and strictly speaking it was not in his job description. He suggested that other people could have done it as well.

Mike: -- Guys, I do not mind taking the bin out but you could start doing it from time to

time as well. I am not here to clean up after everybody.

Since that day and for couple of months the bin became something more than a bag of waste, it was a way to make a statement. Mike continued doing it because as he stated previously 'it *was the job which had to be done*', and he kept volunteering when he thought it was appreciated but not expected of him personally. Calvin was doing it to show by this example that he supports Mike's view on the subject and that he was no different from anyone of us when it comes to the job being done, whatever the job might be. This was usually manifested at times when Calvin was asking anyone of us to perform any new task which was nobody' s direct responsibility

Calvin: -- Guys, I am on the phone now, but can you help to unload the leaflets from the van please, and I'll take the garbage and will make tea for everyone when I get off the phone.

I was doing it to show that I do not see this task as Mike's solo responsibility and that I was ready to do my share of work for the benefits of all. Emptying the bin became the task which would reconfirm the position of the person doing it to be ready to do things for everyone, it was volunteering to be noticed and appreciated. Due to the conversation about the bin which Mike initiated this task enjoyed a guaranteed level of appreciation unlike some other volunteering which could go unnoticed. I think we specifically tried not to take turns in doing it, as this would reduce the task to the anticipated and expected routine, rather than being a kind of statement. At the same time nobody wanted to miss his turn and the opportunity to reconfirm the acceptance of existing order too often. This worked fine for some time until forgetfulness and erosion of significance caused by repetition of the action made bin emptying less of an issue. This

however does not mean that the order which was negotiated among the three of us simply disappeared. It was always there when it was remembered or when someone new would join the organisational context.

BioDetect apart from renting business office in the city also used laboratory facilities in one of the local hospitals. There was based the second part of the BioDetect team which was primarily involved in conducting R&D and scientific experimenting. Although I was aware of this part of the company it was not until a couple weeks later when one of the distributors paid us a visit that I got to meet the second half of the team as part of his stay there. In charge of the 'lab people' as opposed to us being 'office people' was Sheri.

Calvin and Sheri were business partners and started the company two years ago and were able to keep it afloat up to that time through personal investment and access to government grants to support significant research and start up enterprises in the field of healthcare and biotechnological research.

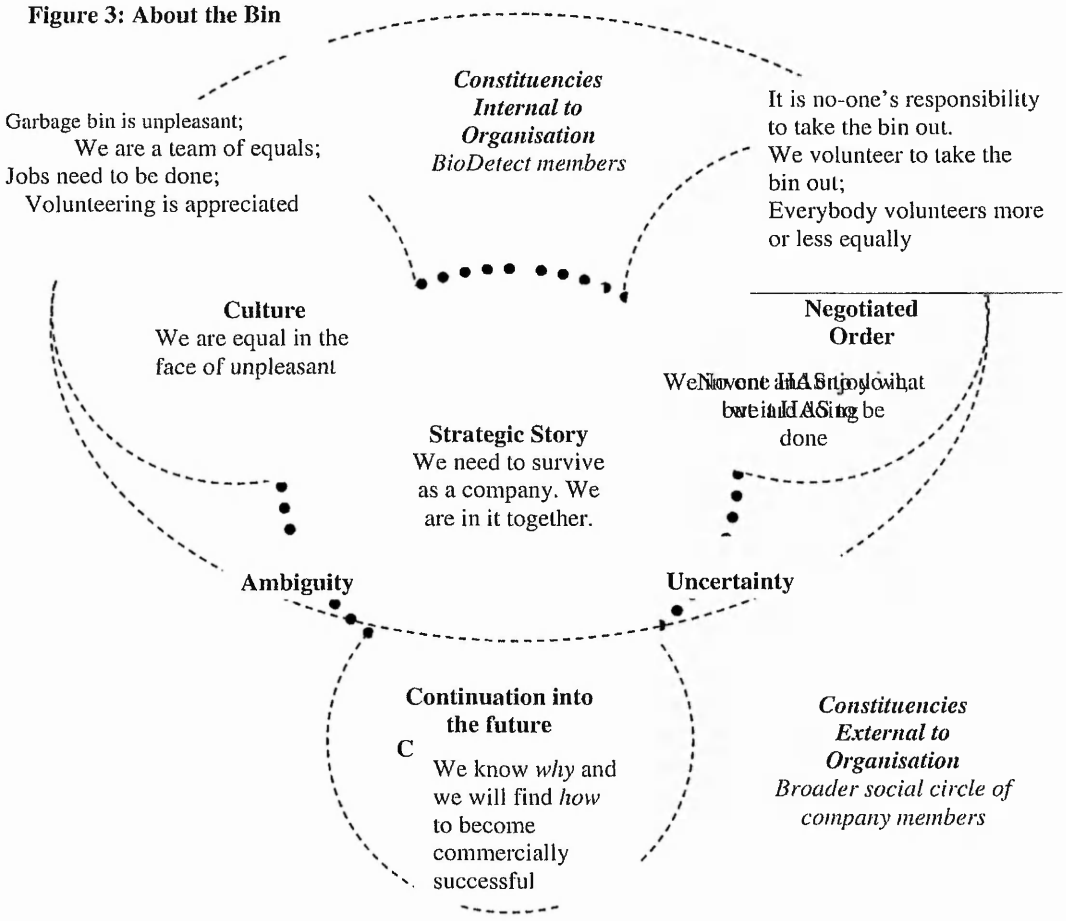
Within a couple of months two people made their transition from the labs into the office. One of them was Sheri, although she remained in between offices splitting her time almost evenly between the two venues. The second one was Denis, a recent graduate with a degree in sciences; he was formally put in charge of systematising, maintaining and organising technical information on the company's products.

As Denis and Sheri became part of the '*office gang*' (another name which was used by us to refer to members of the office team) they were learning existing orders and re-negotiating them from their positions. To continue with the example of the bin, Denis

was very keen on the idea of working with '*hands as well as with the head*'. I could only guess if this was an influence of the lab culture where many things were done physically as well as virtually, or it was simply down to his own explanation "*I like the chance to move around during the day and am a bit of a DIY man myself*". Denis took bin emptying almost with enthusiasm actively displaying the attitude of '*what is all the fuss about*?' As soon as the bin was mentioned he would not hesitate to offer his services first before anyone else did and would most of the time politely refuse help if it was offered to him. "*You can help me if you want to, but I can really cope myself*". Denis extended the attitude he developed towards the bin issue into other areas which required physical work. He volunteered for all tasks that required anything to be moved, assembled or disassembled, anything that required fixing, adjusting, reconditioning or similar hands-on experience. Sheri not only accepted the order of things but almost immediately projected it into other tasks that she probably perceived to be of similar unattractiveness such as cleaning the coffee table: "the only time this table gets cleaned is when I clean it!" Renegotiations of the orders by Denis and Sheri made it again relevant for all of us and significance of acting in accordance with it increased for a while.

The story of the bin is interesting as it illustrates how both patterns of organisational culture and order emerge by mutually enabling each other. The negotiation resources we bring into this story making are initially from a broader social context. Such things as each one of us perceives to be fair, or unfair, important or un-important, pleasant or unpleasant, more significant or less significant. See Figure 3

Figure 3: About the Bin



Certainly, strategic processes of negotiating orders and culture about the bin were just one of many interconnected episodes of strategic story making but these are typical examples of how things were done in BioDetect. The story was emerging that whatever the company was going through '*we were in it together*', we all took advantages and disadvantages which came with the situation the company was in and the orders we agreed on created grounds for believing in it. The next episode relates to how benefits as opposed to chores were shared in the organisation.

4.2.1.2 Benefits and rewards for all!

Calvin: -- When hiring, I told Mike that we can not give him the financial package he deserves but I was happy to offer any other perks and advantages we could find. We are very flexible about working hours as long as someone is in the office and the deadlines are met. We are at a transitional stage at the moment but things are going to change soon for everybody.

In BioDetect everybody enjoyed the degree of freedom in adjusting working hours, in taking vacation or time off to deal with personal issues. It was expected that the person would inform the rest about any changes in their schedule in advance but it never was an issue. '*I am sure we can work something out*' was a standard answer. I believe the underlying assumption was that nobody would abuse the trust of others and therefore any request was accepted as a genuine need and everybody made an effort to be understanding and flexible. Permissions were granted not from the position of formal authority but from the position of operational necessity of each individual and it was not uncommon for Calvin or Sheri to ask the rest of us if it was alright '*if I nip away for couple of hours*'.

BioDetect's culture of going through the process together without regards for formal status was also the culture where the emphasis was on the crucial job not the 'crucial person'. The best office computer with the most ergonomic mouse and keyboard was purchased for Mike because it was discussed and commonly believed he needed it most, new business cards were first printed for Calvin and Andrew from the 'labs' and only later for Sheri and the rest, because that it is how it made more sense work wise. Things which could have been interpreted as symbols of status were distributed within the company on the need-the-most bases. This totally made sense in situations were resources were limited and because '*we were all in this together*', to survive and to make it big. The approach manifested itself even more significantly when the company

decided to expand into another room in the building and the discussion about work space allocation was raised.

Mike: -- Ok, Calvin, we need to decide now where you want your desk, in which room, because then we can start planning where the rest of it will go.

Calvin: -- I do not mind at all, have you thought about it? I am more concerned about the meeting area.

Mike: -- Well, it's up to you if you and Sheri want to make an office in that room. We'd be happy to be as far away as possible from you (Sarcastic)

Calvin: -- Oh I am not that bad, am I? (Laughs) I think we will need a meeting place in whatever room you will be.

Mike: -- I am staying here

Calvin: -- Then I think we want to free some space here around the table and move the coffee table to the corner over there.

Alexey: -- I guess then it would make sense to move my table into another room.

Calvin: -- If you do not mind being all by yourself there.

Mike: -- Flipping Eke! Johnny's got his own office now! (Laughs)

Alexey: -- No, I don't mind. What do you want to do with your new computer now?

Calvin: -- Take it in there with you as well, I won't be needing it too often and I can use my old one to check e-mails. We can always change if we want to, but for now lets do it this way. And we can have here our Ally McBeal meetings. I already talked to Sheri about getting muffins to make them more authentic.

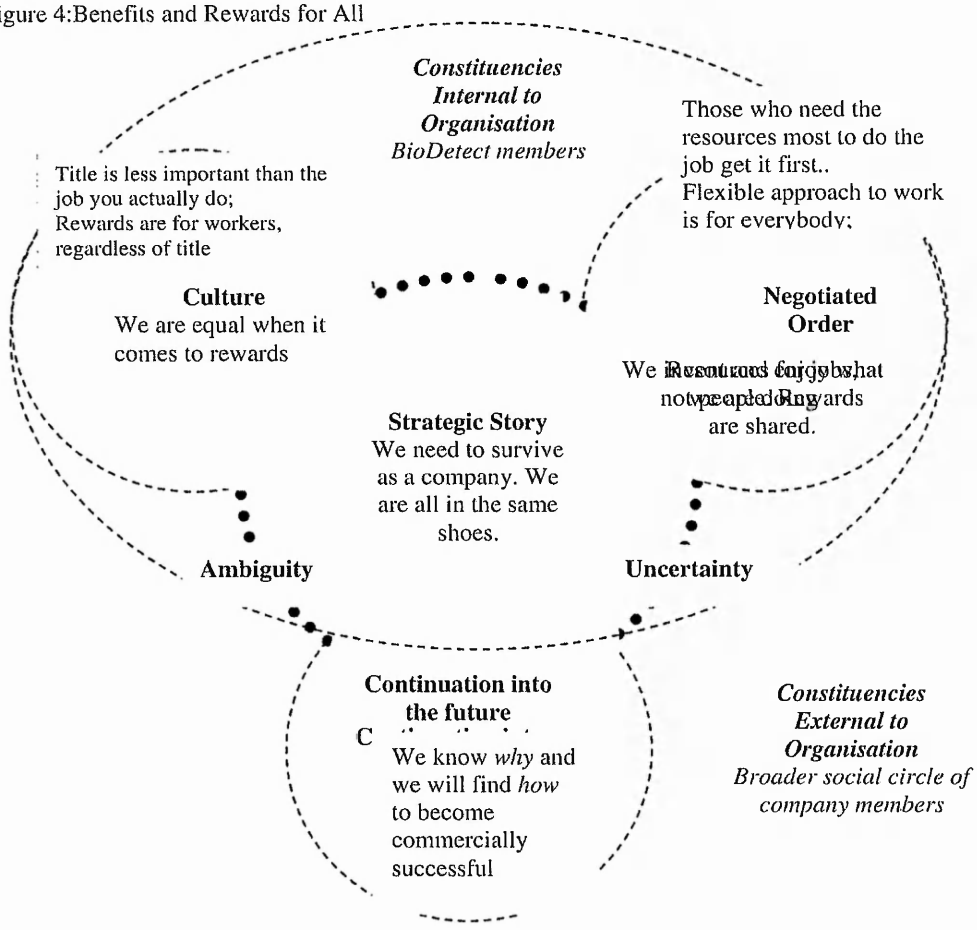
This discussion illustrates once again the prevailing values of operational functionality

over special treatment of anyone in the company even if it is the managing director himself. The values of working together towards a common cause with emphasis on the job being done, as opposed to doing a job, were constantly enacted in organisational orders which respected those values. By substituting rationality of personal interest with the rationality of common cause for a better future, Calvin adds further to the story of a better future for everyone which will happen if we all can make it through these times on an existing tight budget.

Distribution and re-distribution of office equipment and resources is a good illustration of how the strategic story was made as opposed to just told. Survival of the company is not mentioned here however actions and values manifested through them provide discursive resources which can and will be used to reconfirm commitment to the survival of the organisation for the benefit of all members. By choosing to act on this story, by agreeing and developing on it we as organisational members are turning them into patterns of orders and values which form bases for future actions and reference points for negotiation processes.

This can also be conceptualised as an innovation process in a sense that it changed assumptions about values of particular titles and positions within the organisation. The novelty was that official status was less important in resource and benefits allocation, as they were shared according to functional necessity rather than status. The story was shifting importance away from the position one held in the company to the job one actually performed. Together with the emerging pattern of blurred job description it made the theme of equality in the face of survival in the uncertain future even more powerful.

Figure 4:Benefits and Rewards for All



An important aspect of the story is that if there were any rewards or resources to be allocated because of titles they were not brought into the story making negotiations. This however does not exclude the possibility that these did not exist at all.

Looking at the framework and analysing how these two stories mutually support validity of each other by reinforcing patterns in organisational order and culture it is possible to see how a second order pattern of overall organisational commitment to survival and loyalty towards organisation is emerging. The pattern of the organisational strategic story is at that moment to a large degree unclear. It can not effectively address issues of uncertainty about the future in terms of *how* to survive but it certainly provides references for organisational members regarding *why* to survive as this particular

organisation.

Another important dimension within the theme of equality of all organisational members in the face of uncertainty about the future was a story of power and empowerment which also dealt with responsibility.

4.2.1.3 Reporting and control: One to all and all to anyone

The story of equality which promoted ideas of shared rewards, shared commitment and responsibility needed also to address issues of control and reporting. Organisational order and culture had to be negotiated to allow for organisational sense making of criteria about effectiveness of actions of organisational members. In a culture which has bosses but no subordinates and all organisational members are colleagues, the traditional hierarchical line of control and reporting could potentially run into a conflict with other organisational values. In BioDetect organisational processes which involved passing judgement about actions of organisational members and effectiveness of those actions were very much in line with an overall culture of everyone's equal in the face of uncertain future.

The *Ally McBeal meeting* refer to semiformal weekly meetings of the *'business gang'* which were set up to share information between company members, update everybody on new developments and agree on the tasks needed to be achieved. The name Ally McBeal comes from the American TV series set up in a small but high profile law firm. BioDetect's meeting would often start with discussion of the last episode that was on air. Ally McBeal TV series portrayed the law firm as a group of friends and soul-mates, and the characters were often bringing issues of personal nature and importance to the business discussions. The series also portrayed organisational culture in which it was

common and normal to challenge opinions and judgements of the superiors, and in fact the head of the company, the character named Fisher, was more of a facilitator and caretaker leader accepting the fact that people who worked for him were more knowledgeable in many aspects of the company's activity. I believe the game which Calvin and Sheri started by mimicking TV series style of meetings was to reflect their desire to be seen as managers with similar values and attitudes towards organisation. In retelling the past episodes they would often associate themselves with particular characters. I think Mike, Denis and me accepted the game and were eager to play along especially on the comic aspects of the series such as trying to spot Calvinisms, blunt and often controversial statements that nevertheless made sense in a particular situation, which corresponded to Fishisms in TV series.

The style and structure of such meetings reflected and reinstated further the priority of operational efficiency over the issues of maintaining hierarchical status in the organisation. Mike was the one who was keeping minutes of the meetings which also included the list of tasks to be carried out before the next Ally McBeal session. Mike was also the person to read the minutes from the previous meetings and everybody would report on the progresses along the agreed course of action. Effectively Mike was exercising operational control over the meeting as everybody including Calvin and Sheri, when present, had to answer to Mike's list of tasks. I had an impression Mike was not entirely comfortable in this controlling role which he demonstrated through the style he adopted during the meetings. He would often resort to irony and humour when asking us to report on progress or would restrain from making judgements on the progress by demanding the specific answer to what he had to put in the minutes. He was taking an almost indifferent position towards the explanation and reducing his responsibility to recording the answer not acting on it in any way.

Mike: -- Shall we now get to the minutes from the previous meetings?

(Everybody nodded, including Calvin)

Mike: -- Calvin, you promised you will decide which telephone numbers you want in each room. (Pulls an angry face and says in the meanest possible voice with a lot of sarcasm) Have you?

Calvin: -- Ok let's do it now. Actually I need to talk to Sheri about the technical support line and the number for it.

Mike: -- (Hesitates and waits couple of seconds before asking in a very neutral, almost apologetic voice) So what should I put in the minutes then?

Calvin: -- I will sort it out later today. Ok?

Mike: -- Whatever you say, YOU are the boss.

Mike: -- (turning to Denis and me) What about leaflets, you guys have done them?

Denis: -- They need to be proof read by Calvin or Sheri.

Alexey: -- I have written down my suggestions about potential mailing targets and ran some searches on them but I need some feedback from you, Calvin, as well.

Mike: -- So I mark them as 'done'? Good! (a sigh of relief) Now me! Invoices and payment reminders have been sent, the date was set for label printer to be delivered. They also will connect it and provide training so someone would have to cover the phones on Wednesday afternoon for me.

This situation develops within the belief that everybody including top managers have to answer to the rest of the colleagues on progress being made reconfirming yet again the '*we are in it together*' order of things.

The lab had their equivalent of weekly meeting which however followed a different protocol. It was initially set up to discuss progress and problems in research and was very technical and for that reason neither Mike nor I had to attend those. However I asked for permission to join in the meetings '*to get used to the language*' and was since then free to join them whenever my workload permitted.

Although both meetings were set to fulfil the same purpose of reporting to each other on the progress made so far, the format of these meetings was different.

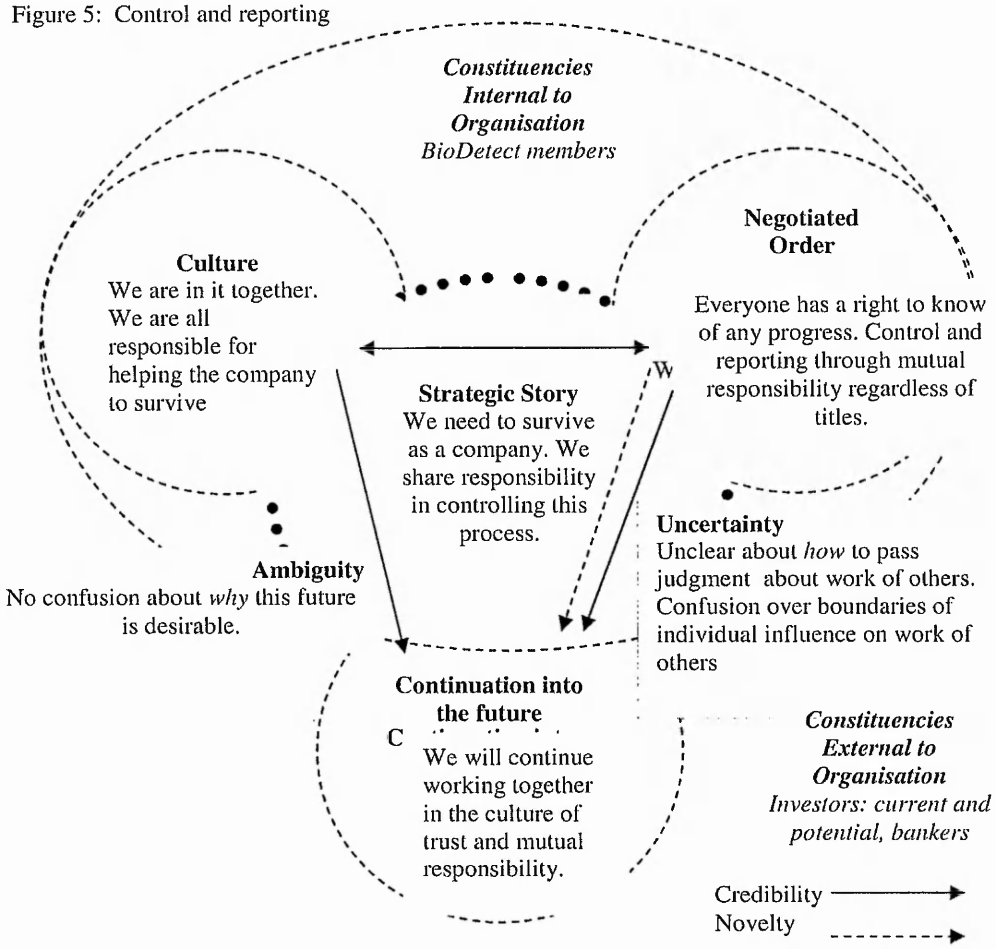
The R&D meetings were more structured than Ally McBeal meetings and almost without exclusion followed the same order every week. Everybody would get a cup of tea or coffee and take a seat around the table at what appeared to be at random. Sheri would then either start herself or would ask anyone to volunteer to start the meeting. The usual process was to report on what the person was doing during the week, the data normally would be presented in the form of printed graphs or similar visual representations which were laid on the table for everybody to see. The person who was presenting usually commented very little, telling everyone only what was measured and what was plotted and nothing on what '*the data showed*'. Other members of the team, most often Sheri, would voice the conclusion about what the data could have indicated. The conclusion that everybody seemed to have reached themselves by then, as I could not recollect a single episode when any of the conclusions were contested except for when people by mistake were looking at different graphs. Being an outsider to the biotechnological R&D I was very deeply amazed and impressed by such unanimity. However the judgements about what the results *meant* or *how* they could be interpreted and what they could mean, as opposed to what they *are*, produced discussions and debates. Based on the outcomes of such sensemaking, whether expected or unexpected, the provisions were made for next week's activities and the turn for presentation would

be passed to another member of the team. With rare exceptions the order of presentations followed the order of sittings around the table.

The general tone and rhetoric of the office Ally McBeal meetings was very informal and aimed to be more result oriented. The job was measured first and foremost in terms of whether it was completed or not. While R&D meetings were slightly more formal and more process oriented, focusing on what a person was doing rather than what was achieved. However, both meetings although very different shared one order which is important for the strategic story of survival. It was the protocol by which any report was done by everybody to everybody blurring differences between controlling and executive-operational functions.

The sources of meaning to deal with uncertainty about *how* to survive and *why* survive were developing through references to negotiated orders of doing things together and culture in which everybody is as important as anybody else. The strategic story so far was that we all will *somehow* survive as a company through staying together and we will do so for the benefit of *every one of us*. See Figure 5.

Figure 5: Control and reporting



4.2.2The theme of unity against common opponent: Us vs. Them

Another theme in the organisational culture and negotiated order of BioDetect which was closely related to the '*we are in it together*' was the theme of opposition as in '*us vs. them*'. This theme was developing along the lines of two sub themes of making sense of who belongs to '*us*' and also the sub-theme of the common enemy.

Calvin was rather nervous coming from a meeting with Professor Gordon at the local university, the usual 'how are you all doing guys?' went down pretty fast without going into any details. He put his leather case down and went straight for the phone.

Alexey: -- Bad news?

Calvin: -- Ahh, I am so frustrated with him! You do not expect people to become so hostile so fast! Who does he think he is?

Calvin shook the phone he was holding in frustration and anger.

Calvin: -- I'll talk to you all later I need to speak to Sheri about this NOW.

Calvin went to another room as he started dialling the number.

Alexey: -- (talking to Mike) Do you know what the problem is?

Mike: -- I do not know the details, but it sure gets Calvin alright.

Half an hour later Calvin entered the room still very excited and talking on the phone, took some papers out of his case and rushed out again. Another twenty or so minutes later he was back.

Calvin: -- Anybody for a cup of tea of coffee, cause I need one right now?

Calvin made tea for everyone and sat at the large desk we used for weekly meetings shaking his head as if in disbelief, while Mike and I were enjoying our drinks behind our desks.

Calvin: -- I do not see his point! He is not going to get anywhere this way.

Mike: -- He must have done something major to annoy you this much.

Calvin: -- I do not want to get into all the details but he started what I can only describe as blackmail to get his way. It does not work like this, but he sure can cause some problems for us. But if he wants war, he is going to get one.

Mike: -- I have nothing personal against this guy, but if he is going to put you in the mood like this one often it sure will make my life more difficult and stressful.

Alexey: -- So what are his crimes if it is not classified information?

Calvin: -- I think some of it might be. We worked with him on some projects and now he wants a share in BioDetect and he demands some special conditions for himself and threatens to pull a plug on some joint research projects and their outcomes.

Alexey: -- It sure does not sound good to me, can he cause lots of troubles?

Calvin: -- He probably can, but we are not going to let him. I am afraid guys you will see less of me the coming week. Sheri is going to be here in half an hour so if there is anything important I need to sign or decide on I'd rather do it now. We are going to see the lawyers and plan our retaliation.

From that day the news we were getting from Calvin and Sheri about matters related to Professor Gordon reminded me of battlefield messages. It felt like being at war in the home front, with Calvin and Sheri at the front line. Mike, Denis and me, we did not see the action but we knew it was there. When our 'front liners' were coming to the office we did not ask for the specifics especially if their mood was not victorious. We saw our task to address all arising issue without going to either Calvin or Sheri unless it was absolutely necessary. At some point in the midst of the action I realised that regardless of the fact that I did not have the full understanding of the problem, and that the outcome of the 'conflict' either way would hardly have any direct effect on me, I felt it was definitely my war as well.

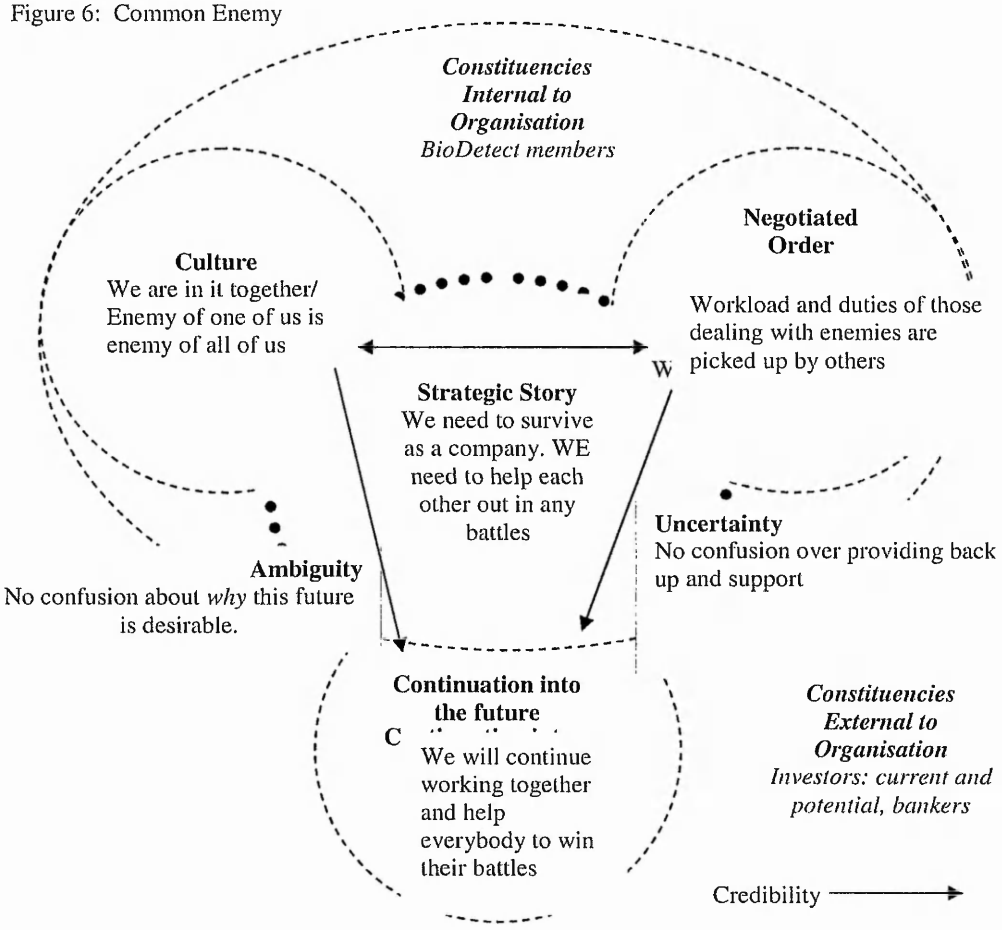
The theme of common enemy or opponent was almost constantly present in the company. Just like in the conflict described above, acknowledging the enemy meant we had to regroup and restructure for battle. Unity against a common enemy relaxed the negotiated orders in the organisation and allowed for easier re-negotiations if this was done in the name of the victory. In the described confrontation with Gordon, the order had to be renegotiated to allow running the office with minimal involvement of either Sheri or Calvin. We were able to challenge the right to take on certain tasks (in my case it was negotiating on behalf of the company with external entities such as publishers) or sometime leave the other ones unattended.

It might appear possible to put an argument forward that this confrontation was

something that could have an effect not only on certain individuals but on organisation as a whole and therefore should have been a concern of every organisational member at any level by default. To a certain degree it is a plausible explanation in a sense that implications of any action or relation in an organisation, no matter how small, could produce multiple influences similar to ripples on the water from a stone thrown in at a distance. However, the matter in debate was predominantly a shareholder's dispute over ownership rights and profit sharing and would have little direct effect on non-shareholders. Besides, there were other smaller examples of '*uniting against common enemy*' theme such as when one of *us* had an issue with obstructive neighbours or a debate with local authorities' officers. Time, advice and back-up at work were always provided for those '*in battle*' and therefore there are grounds to say it was becoming order of things in the organisation rather than an isolated episode.

The sub-theme of who constitutes "*us*" was less powerful than the theme of a common enemy and at that stage was often merging into one story. In short it can be reduced to a rule that in any given situation anyone who was against our common enemy of survival would be cast as one of *us*. Although that theme was relatively insignificant at the time compared to other themes it became very dominant in later strategic stories and therefore needs to be mentioned here.

Figure 6: Common Enemy



4.2.3 From reasons to survive to ways of survival

Up to that point in time the strategic story of BioDetect's survival was failing to address uncertainties about *how* commercial success of the company on which survival depended would be achieved. The story was providing meanings for individual sensemaking about *why* survival was desirable and why individual resources had to be pledged to it, however, little was known about *how* and *how soon* it could be achieved. The general idea was – that BioDetect needed to start selling the company's products and market research was initiated to get a better understanding of available options and customers.

4.2.3.1 Survival: external capital or a single customer

The beginning of the '*how to survive*' story for me as I have noticed it started when I overheard Calvin and Sheri talking about having difficulties in balancing accounts in the financial model they had been playing with on the computer. They kept finding '*the problem*' and correcting it but the accounts remained unbalanced. I offered my help in revising the model as I had some experience in finance and book keeping and quite recently had a similar exercise of searching for errors in spreadsheet models. My offer was appreciated but it was said it would probably not work as the model was rather big and it would take longer to explain it to me than to solve the problem themselves. That definitely made sense but I asked for permission to look at the model on another computer out of curiosity if nothing else. They did not mind.

Curiosity was certainly an issue but I also hoped to demonstrate I could be helpful in such matters and through this get a chance to get more involved with that aspect of the organisational operations. Up to that time anything concerning financial issues was generally kept secret from anyone who was not a shareholder. In a couple of hours, having 'a fresh eye' for numbers, I managed to balance the accounts in the model without fully making sense of it, although I could definitely see it was about forecasting financial performance for the next number of years.

Calvin and Sheri were not only very happy for me to eliminate the problem but also explained that it was supposed to be a part of business plan they have been attempting to put together for a long time. I was told they had been thinking about raising capital to help the company grow and to have sufficient funds to make the transition to the commercial manufacturing of BioDetect's products. Later that week the financial model was seriously rebuilt and had to be balanced again anyway, I however was already

working on sales forecast for the business plan.

My involvement with business plan led to a number of conversations I had with Calvin about the future of BioDetect.

Alexey: -- So you believe BioDetect requires additional capital investment?

Calvin: -- I think we do. We have been working on the technology for couple of years now we have a great product and couple more in the pipeline but we need to start selling in serious volumes if we want to survive. The potential is great but we need money to get through this commercial start-up period.

Alexey: -- Can I ask how you have managed to finance the company so far?

Calvin: -- Sheri and me invested our own money and time, some of our friends did too, we were successful in winning government research grants, one of which was approved several weeks before your first interview with us and there are other investors as well. But it is time for us to make a move from being mainly a research company to making use of the technologies and products we have.

Alexey: -- So you are considering a business loan?

Calvin:-- Among other things. We are also talking to venture capital companies who specialise in hi- tech and biotech sectors. We'd rather have an investor than simply a creditor.

Alexey: -- What would be the ideal version of events?

Calvin: -- That we start selling large volumes to pharmas soon and become financially secure. I like being an entrepreneur and I want to keep the spirit and the culture we have in this company. I like knowing that people like working for BioDetect, I do not want us to stop having fun and be all boring and formal. I do not want BioDetect to loose its independence. I believe soon things will change dramatically for the company as long as we can start selling our products. All we need is for one of the

pharmaceutical companies to start using our product in their screening and we are making profit already. But it takes time for the decision to be made and we need additional funds to get us through this waiting period and on to the market in the fastest time.

Alexey: -- So the business plan we are putting together right now is for venture capitalists?

Calvin: -- Yes. And I think it will also be a good exercise for us as well to get a perspective to where we are heading.

Alexey: -- Just a curiosity question, do you think BioDetect can make it on its own without raising additional capital at all.

Calvin: -- I think we could but we will loose a lot of valuable time. The technology is ready now and we should start using it.

This conversation took place before any serious research into the size of the potential market for the BioDetect's' products. In this story Calvin admits to high uncertainty that he feels about the future of the company in the short run. However accepting uncertainty I believe adds to credibility of the whole story, it creates reasons to believe that Calvin as a leader, an entrepreneur and a strategy maker has a good grasp about how things are. His interpretation of the future also gains credibility through his desire to extend the existing organisational culture into the future, something that many organisational members feel very strong about. The novelty element of his story, as I saw it then, was the use of investor capital to improve the company's ability to make it through in the short run at least. However there is another very important element to the story that makes it even more effective and engaging. Uncertainty about how things might change in the long run and what might it mean for organisational members if venture capitalist invest in BioDetect is managed through introduction of innovative idea, innovative in a sense that it enacts a new desirable order of things: *'All we need is*

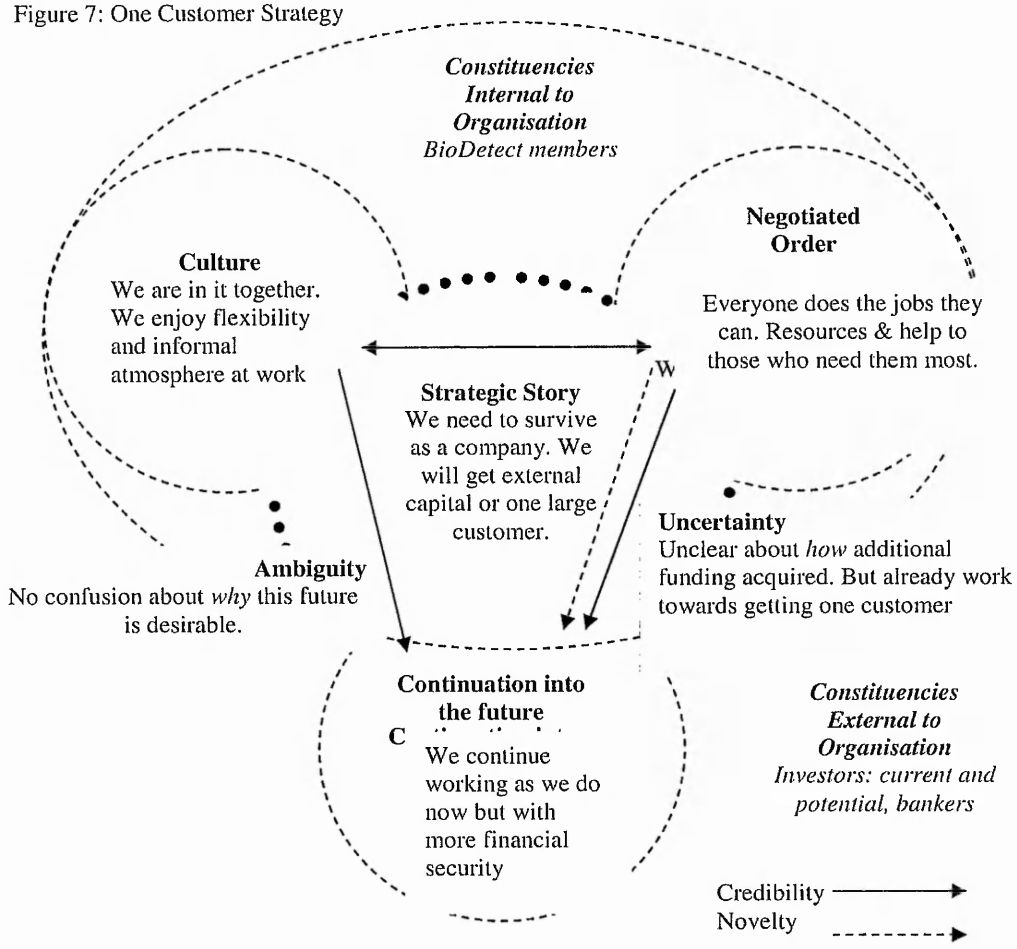
for one of the pharmaceutical companies to start using our product in their screening and we are making profit already'. Up to that time I had never heard or thought of BioDetect as a one customer company, but there was nothing stopping it from being one. Providing this customer was one of the big pharmaceutical companies which we were trying to get anyway. The novelty was in suggesting there was a safety-net if things did not work out with external investors. From now the story was that we had a good chance of *making it on our own by getting just a single customer account.* That is of course if the conditions offered by venture capitalists or other creditors/ investors were unacceptable for whatever reason.

What I have noticed about this story as it was developing was the way the chance of us making it without external capital was always used as a safety net in discussions about raising capital. The story was slowly transforming into '*we need some finance to get us going but if we had to we could do without it, by just getting one customer*'. This was always backed up with references to how many sites can potentially use our products (at least 30) and getting a contract with any one of them was enough to get us going. To support this line of argumentation it was often mentioned how well received were talks and presentations delivered by Calvin to scientists from research departments of large pharmaceutical companies. Gradually the phrase '*well, effectively we just need one customer don't we?*' was commonly used at the end of any discussions about BioDetect's financial situation and financial future. However the dominant theme was still the search for additional finance.

Here the diagram is used to analyse this story. The initial uncertainty about *how* to survive was addressed by declaring the search for external finance and this part of the story builds heavily on existing organisational order and culture as it aims to preserve both. On one hand the story of additional external finance (not generated by sales) was a

continuation of the financial policy of the company so far and the only variation was about the source of external finance (previously it was government grants, and from then on it had to be private capital). In that sense, it was a very familiar story. On the other hand BioDetect as an organisation lacked experience in successful negotiations with private investors and, equally important, there was no company activity in that direction at the time. If that was to become the *how* of survival, than somebody had to start doing it. The story so far was about brining products to the market and selling them, not finding ways to generate investment to stay afloat. The importance and effectiveness of the story of survival through signing a contract with just one customer was coming from supporting and confirming the belief that what we were already doing could lead to company survival and it was within very realistic proximity. Both parts of the story drew on existing order and culture but in different aspects which together made them a very credible and believable story about ways of survival.

Figure 7: One Customer Strategy



This story did not live long enough in its original form as new developments had been brought in negotiating an understanding of what kind of company BioDetect was. Those developments were a result of rethinking commercial potential of BioDetect's current and future products.

4.2.3.2 Survival by Prosperity

Part of the work that I was involved while working on a business plan was estimating market size for BioDetect products. There was very little if any data which we could use directly to put into calculations. The problem was that we were dealing with potential rather than existing demand for products many of which were still in the pipeline.

At the time when those market analyses were performed BioDetect had two main products: LifeDetect (LD) and DeathDetect (DD). LifeDetect was a product for conducting assays to understand whether cells were proliferating (and how fast), dying or were in a stable state. It was available in two variations which represented two different combinations of sensitivity and stability of measured parameters, which were tradeoffs of each other. LD was already sold in small quantities mainly to individual researchers and was also frequently used for promotional purposes as demonstration and '*give away kits*'. The novelty associated with LD products was not so much in the formulation of ingredients or chemical reaction but in new interpretations of the meaning of measurement those products allowed to perform. Scientists at BioDetect claimed that by following the protocol they suggested it was possible to say more about cell condition than was previously thought, thus extending applicability of the known reaction into other applications, making product more versatile. The idea was to fine tune products to make them work best with suggested protocols.

DethDetect (DD) was technologically ready but required more approval testing from external organisations. DeathDetect was a product for conducting assay to determine the way in which cells die. Unlike LD, DD was a product for which a patent was pending and it offered a new method rather than only new interpretation of the results. There was no equivalent of the DD product on the market, only substitute products which were based on different principles.

Both LD and DD had certain advantages from a technological point of view and could have been also applied in High Throughput Screening in large pharmaceutical companies. It was strongly believed that there was a market and demand for BioDetect's products, however as I have found out later there was very limited

understanding of potential market size. At that time when sales were discussed they were looked at from the point of view of what we had to generate to ensure healthy survival, rather than what level of sales it was possible to achieve. There were of course difficulties in assessing demand for products when we still needed to convince customers about credibility and sustainability of the results of the assays produced with company's products.

An integral part of surviving through commercialising operations was a successful marketing approach to existing and future products. The processes of trying to understand what kind of product BioDetect was dealing with revealed very innovative enacting processes.

Alexey: -- So in case of LD we are selling not so much the kit content, which other companies, apparently, also provide, but the way of looking at the results and interpreting them so that more could be said about the cell than was previously possible with similar measurements?

Calvin: – This is one way of putting it, but LD kit is also best suited for such experiments which follow our suggested protocol.

Alexey: -- I am just thinking how we can express in numbers the potential demand for LD. We have competitors who sell similar content kits but for narrower applicability. The obvious target would be customers who want all data that LD can provide, but how do we assess this segment?

Calvin: -- I am thinking more about how we measure the volume of sales we can achieve if we can convince large pharmaceuticals to start using our product.

Alexey: -- How are those different from the groups of customer we have just talked in general?

Calvin: -- For pharmas cost is a big issue. It is one thing if you run ten plates twice a

year and if you run 10 000 plates every two months.

Alexey: -- But I thought that pricewise we were not the cheapest option around?

Calvin: -- We are, if you consider that our kit allows them to eliminate more false leads earlier, which saves them money on not developing false leads. They would spot them later anyway, but by that time the cost of the reject would be much higher.

Alexey: -- In this case we have to measure the size of the market where there is no demand at the moment, simply because things are not done this way. We would need a strong argument to pull it through.

Calvin: -- If you could estimate how much money pharmas could save if they move LD test earlier in their process we could use this figure to justify adding this market to our projected sales figures. I could also use it for presentations I run for scientist at the research departments of pharmaceutical companies.

This was the first instance when I heard the story about making a market for a product. I was very surprised to find this attitude in the science dominated culture. My understanding of the R&D informed rationality was that of finding solutions for the problem not the other way around. The innovation process which allowed for the favourable interpretation of the future, in which BioDetect enters HTS market, was about enacting a new problem and also enacting culture in which this problem was enjoying the status of requiring a solution. Here the negotiated order of the HTS process was questioned and a new interpretation which treated cost incurred in the automated screening as a lesser concern than the cost incurred at stage of human involvement in testing (there was no evidence which could substantiate such claim at that time) were enacted. It is possible to argue that one could arrive at a similar conclusion by analysing cost saving opportunities in a normal, straight forward way, by examining the whole sequence of HTS stages and comparing various combinations of events to find the optimal spending pattern. But this would make sense only if we assume the existence of

the product with properties different from those already used in the optimised chain of stages.

It appears that both logics suggest that in this case it was the innovative enactment of the market for the existing product and not the other way around.

Similar innovation processes were used to make sense and create a new market for another product in BioDetect's pipeline. MicrobDetect (MD) and VirusDetect (VD) were two products still in the pipeline, but the principle behind them was similar to the one used in BioDetect's traditional products and there was confidence that they would perform as predicted. MD was of special interest because it could be used to substitute testing done by other methods, which were rather expensive or highly labour intensive. MD was expected to be both easier and cheaper which led Sheri, Calvin and me to agree that we could use the total turnover of the segment as the potential market value in our calculations of MD sales. This already put smiles on our faces but in my view what happened next significantly shifted perceptions of all of us about how the things could develop for the company.

Sheri: -- So far MD looks like the winner to me. Are we good or what?

Calvin: -- We are the best!

We are all smiling.

Alexey: -- One more question while we are at it. Providing that MD will simplify the testing do you think we might be creating additional market as well? Who do you think is avoiding testing because it is so time and labour intensive?

Sheri: -- Ideally everybody who works with cells should be running these tests regularly to make sure the cells are fine, because if they are not there is no point to continue -- end of story.

Alexey: -- And how cheap can we make it?

Shari: -- We can make it cheap-cheap especially if you compare it to contract testing that many large companies use.

Alexey: -- Can we do contract testing with MD?

Sheri: -- I do not think we should, MD is a screen not a definitive test. Well we might be able to prove that it is but it is not at the moment.

Calvin: -- MD can almost with 100% accuracy confirm if there is no problem but if cells test positive for MD, customer would have to do further testing with traditional techniques.

Alexey: -- If I understand you correctly then we are looking at the wrong market segment. Because if MD will be that much cheaper as you say it can be, and a lot easier to perform, then there will be no excuse for anyone not to test cells regularly simply to make sure they are fine.

Sheri: -- Yes, even small labs would want to use it at the price we can sell the kit to them.

Alexey: -- Then from the data I have, if just 10-20% of those who should be testing their cells but don't do so at the moment will start using MD these are the figures we should be looking at. (The sales of MD with that assumption looked much higher than the forecast for all other products combined)

Sheri: -- I like these numbers!

Alexey: -- It might be a miracle product, which by itself could be worth a lot more than what we thought the whole company was worth.

The forecast sales figures for MD were not entirely comprehensible from the position in which BioDetect was at the time. However it required little effort to see how those numbers added up. Ironically I had to think of reasons why we should have been operating with smaller figures. I think both Sheri and Calvin had the same feeling, they

were happy for MD to remain as the final argument, an effective fairytale-like ending to their story of BioDetect's future, but they both avoided using it at full face value in any discussions and negotiations. The common thing was to talk about future sales in terms of before and after MD sales where included.

I think the MD sales forecast if taken at face value would seriously affect interpretations of successful future which were negotiated in the organisation to the point of jeopardising credibility of such interpretations. I had never had any member of BioDetect to refer seriously to the total figure of potential MD sales or draw a conclusion or make an argument based on such figure. On the other hand MD made the rest of the financial forecasting less stressful. We would more easily agree to use numbers from the worst or average scenario when forecasting sales for other BioDetect's products rather than needing to push for the best scenario figures. If necessary we could always tip deeper into the MD story. This relaxed attitude towards forecasting figures that we developed because of the potential MD sales made the whole business plan more credible in our own eyes. We were proud to remind each other that we were making very modest assumptions and that no '*creative number twisting*' was employed.

As the business plan was taking shape the strategic story of BioDetect was changing again. When we ran the numbers we got for the sales forecast through the financial model of the company that Calvin and Sheri were using previously to make sense of what to expect, it turned out that the owners of the company would be better off if the company would grow organically. It looked like the company would be struggling during the first 18 months but by the year 5 the advantages looked undeniable on the spreadsheet.

4.2.3.3 Analysis of the Survival story

The story of survival made in BioDetect turned out to be an effective one. It allowed the company not to lose access to key resources and to secure commitment of all organisational members. However at the beginning the story was mainly developing along the lines of managing uncertainty about *why* to survive. In the story of survival the continuation of BioDetect into the future becomes an engaging and motivational aspect for all organisational members as it allows for favourable interpretation of individual positions in case of such survival. Things were expected to change for better for everybody involved and that mainly related to financial and job securities. The proposed novelty is that such financial security of organisational members can be achieved while preserving a current culture of informal attitudes and responsible freedom and collective responsibility. That aspect of the story built on the organisational culture of the time which put emphasis on values of unity and equality in the face of uncertainty.

Uncertainty about organisational future was managed in a number of ways. On one hand strong credibility of the strategic story was achieved through projecting current organisational culture almost unchanged into the version of desirable future. Many themes within the strategic story of survival emphasised importance of unity and equality of all organisational members in hard times and good times. Such organisational culture allowed every organisational member to make sense of how and why their contribution was valued and appreciated regardless of formal status. Extending that pattern of organisational culture into desirable future allowed organisational members also to make sense of *why* they would want to commit themselves to the company's survival. Within the existing culture any improvement in company's performance would be passed down in some form or shape to every

organisational member. The story was that all were equal in the face of financial uncertainty, but equally everybody would benefit from financial security if the company survives.

For a long time the story of survival lacked any significant novelty for it to become a more engaging story. However, strong credibility which was based on familiar culture and organisational order facilitated commitment of all organisational members towards company's survival, which in its turn provided main strategy makers with time to work on the story of *how* that future could be made possible. The novelty has emerged through processes of re-evaluating the potential market for the company's products on one hand and the effect of signing any major supply contract with large pharmaceutical companies on the other hand. As a result of those processes desirable future was meant to be achieved with more certainty. First of all, from then there were two ways of achieving survival: through sales *and* through investment. Secondly each of them was singularly sufficient in achieving desirable future. Thirdly, the sales route was thought to be achievable much faster than previously believed while the investment route was more prone to success than previously expected. And although the strategic story of survival, in the part of *how* BioDetect's survival could be achieved, has preserved organisational order almost unchanged, it provided ways of rethinking *effectiveness* of such order for attaining desirable future, which in its turn allowed to address uncertainty about *how* the change was possible.

The strategic story of survival at BioDetect was made up of a number of smaller stories which were internally effective and engaging, but individually insufficient to address all uncertainties and ambiguities about the company's successful continuation into the future. However by mutually supporting and developing non-contradictory assumptions they together emerged into a more encompassing story of organisational survival which

successfully addressed all issues about how and why BioDetect's survival was possible and desirable, and gained commitment for action from major entities involved.

The themes of organisational life and negotiated order that were presented in this chapter so far do not reflect the whole variety of other smaller themes and sub-themes that were negotiated and renegotiated on a daily basis which will be discussed along the strategic stories in the next chapter. On the other hand these were the themes that I believe have been developing from the start all the way through to the end of my involvement with the company. I felt it was necessary to put them aside together in this one chapter to create a general understanding of how it felt to be and act in that organisation. These themes will be further discussed in the following chapters as the processes of the strategic story making will be made sense of.

Chapter 5: Strategic Story of Alliance

The main achievement of the strategic story of survival was securing commitment of most resource holders to BioDetect as organisation. The strategic story of survival did not prioritise the investment route over survival through profitable sales but maintained a focus on the possibility to put an end to uncertain times and provide financial and job security for everybody involved. In accordance with the strategic story of survival both options available to BioDetect had to be pursued. One approach which appeared to benefit both scenarios simultaneously was participation in conferences and delivering presentations on technology and principles used in BioDetect's products to a wider audience. That was seen as a way to inform industry of new available products, gain credibility for the principles behind them and also make potential investors aware of the existence and technological potential of the company.

Within the adopted conceptual framework conferences and work shops are part of an important broader context of organisational negotiations. And for strategic story to be effective with entities external to BioDetect it had to be credible and engaging in broader social culture and negotiated order. Strategic story had to be modified to be successful within a broader context.

The strategic story of BioDetect for a broader context was more ambitious and less conservative than the one which was used internally. Many limitations (such as lack of trading experience and commercial operations, certain time pressures) which could not be ignored in internal negotiations were kept invisible to outsiders and thus allowed strategists to enact more favourable interpretations of the future. In the strategic story of survival for external audiences BioDetect was presented to all as a company virtually on the verge of unavoidably slipping into profitability '*with or without*' any particular

customer or investor. It was the internal story of survival upgraded in scale and speed of development and also enacted with more confidence and thrust.

It was mentioned before in this chapter that the moment when one story ends and the other begins is very difficult to define. It is especially difficult to do so because different versions of the strategic story would experience various rates of change. The story of survival for an external audience could be more easily amended as it had fewer limitations which had to be brought in negotiations about feasibility of desirable future. It is therefore not too surprising that the new story had started emerging from new enactments in the external version of BioDetect's strategic story. And if I am required to draw a line on the moment in time when the strategic story of BioDetect took another important turn it would be when Calvin returned from a large international conference on developments in biotechnological and pharmaceutical industries. That event took place in the US and was attended by all the major players in the field of drug discovery.

It was at one of the meetings which Calvin and I had as a part of the agreement about my research activity in the company, just a couple of days after his return from the US, when I first got an impression that the new interpretation of BioDetect's future was about to emerge. It was not only *what* Calvin was saying, but also *how* he was saying it: with much more confidence, enthusiasm and excitement of a person who knows more that he reveals.

Calvin: -- Being there with the big guys (referring to large pharmaceutical companies) made me realise that we are at the forefront of the industry development. We get citations! I was approached by some major players about possibilities of co-operation. We need the sales force and financial muscle to help start selling fast. I think we will have some visitors here very soon.

After the conference the rhetoric of the company's survival was almost forgotten. The emphasis shifted towards the importance of securing distribution channels and being able to do '*what we do best – research and product innovation*'. The word '*alliance*' entered the daily lexicon of Calvin and Sheri and became a buzz word for some time. We had groups of visitors coming from two different companies, Avotec and BioTrack, however they would spend most of the time in talks with Calvin, Sheri and Andy, and apart from brief introductions and occasional 5 minute chat over a coffee or tea neither me nor other members of BioDetect at the business office had a chance to talk to the visitors. These discussions were strictly confidential. However, Calvin was quite open about how things were generally developing and would take time to pass on information omitting only specifics and names to us – the *office gang*.

It was after seven o'clock on a Thursday night when Calvin popped back into the office after Simon from Avotec was on his way home after two days of talks at BioDetect. I was taking advantage of flexible working hours and was staying in the office so that I could be an hour or so late in the morning. The official out-of-office hours were hardly hectic (this would dramatically change later though) and were perfect for reflexive conversations about recent development in BioDetect.

Alexey: -- So how were the meetings today, successful you think?

Calvin: -- It is still hard to say now but we are having some interesting discussions, discussions we like having. (Calvin smiled as he was going through the papers Mike left for him on his desk) It looks like things might change for BioDetect in the nearest future.

Alexey: -- If it is not a matter of confidentiality may I ask what the general subject of the talks was?

Calvin: -- Well it is confidential, but I think you guys should know, as long as it does not get passed outside. Avotec and BioTrack both have expressed their interest in acquiring or merging with us. At the moment it is still unclear how we want to proceed with it.

Alexey: -- Do you know by now which one of the two it is more likely to be?

Calvin: -- We do not know yet, we want to keep both options open. These are very different companies. Avotec is more closely related to what we are doing. Simon is a brilliant person and he understands the science very well, which we certainly like a lot.

Alexey: -- So I assume you decided not to follow the option of making it on our own or to look for short term capital investment?

Calvin: -- The thing is, it would take us much longer to do it by ourselves. We can not afford all this time. If we want to be successful we need to start selling as fast as we can, we need to develop the products we have in the pipeline. It will take months if not years to achieve what we can expect to get if we go with one of the companies. Besides, Sheri and me we have invested so much effort, time and money in BioDetect in the last few years we want to see it develop and develop fast. There are advantages of going with Avotec, we want to retain as much autonomy as possible and they seem to be accepting it. We still will be the same company we are now, but with organisation and resources behind us to help us selling and market our products.

Alexey: -- It looks like a win-win situation assuming you are happy about all the conditions of the deal.

Calvin: -- Actually it would be helpful if you can tell me what methods there are there for company valuation.

Alexey: -- There are different methods, which might or might not work in our case. Do you want me look into it and try to assess the value of BioDetect, we can then discuss what I'll come up with?

Calvin: -- Thank you, this will be very helpful.

Alexey: -- I'll start tomorrow and will let you know as soon as I arrive to any number.

That was another story in the making. That was the story of BioDetect's alliance with another market player, the story which was rather different from the previous strategic narrative. That time interpretation of the future was based on the enactment of a successful alliance with more financially strong and commercial organisation. Initially the story was more of extension and continuation of the survival story. Finding a suitable investor was one of the alternative interpretations of success of that strategy but since that time it became the only option.

On one hand general credibility of the story was achieved through references to the processes which already became a common feature of organisational life at BioDetect. Things were developing as expected and enacted in the survival story and there was little uncertainty if an alliance and subsequent investment would follow. Regular meetings of BioDetect's management with representatives of Avotec and BioTrack supported assumptions that those organisations were interested in making some sort of a deal with the organisation and the issue remained what would be the exact conditions.

The new story had to address uncertainty about how organisational order would change when BioDetect would lose its formal independent status to a different one and what it would mean for organisational members.

5.1 The theme of equality in organisation: 'We are in it together'

The direction and pace of change in BioDetect was becoming more visible and clearer by the day. There was little doubt that the company would become part of a bigger organisation or a network of organisations. One of the main uncertainties which had to be addressed was about sustainability and preservation of favoured orders and values which justified survival in the first place. A theme of *going together* through the processes of achieving a better future for everybody had to be developed further to clarify what organisational members of BioDetect would commonly gain from the future in an alliance and what would they have to sacrifice.

Collective tea breaks and after-work pub visits were gradually becoming rarer as Calvin and Sheri were becoming increasingly busier with various aspects of alliance-building process. So when such meetings did happen Mike, Denis and I were trying to use them to get some feel of what was coming and what to expect. Most of the time we were talking to Calvin alone as Sheri would use such opportunities to visit lab facilities and mange that side of the organisation.

Calvin – I've got to tell you guys things will change very soon for this company. We would have a lot more resources at our disposal to market and sell our products.
Mike: -- Will you still be the Boss? Or will you have finally someone telling you and us what to do?
Calvin: -- It will be business as usual but with sales and marketing force to support us. If we go with Avotec and at the moment it looks like it, although it is still at an early stage, we would only benefit. They are scientists themselves, they understand this industry and they want to help us doing what we do best. It is not their intention to

interfere and change here everything. I personally want to keep the spirit we have in BioDetect, I like to think we have fun here and I will make sure we keep it this way.

Alexey: -- So BioDetect will operate as an independently subsidiary?

Calvin: -- We are still discussing it but it will be more like a company within a company, we will be completely ring-fenced. They have an excellent sales force and distributor-network, and they actually understand the technology. They are scientist like us.

Alexey: -- So there will be benefits from the technology swap?

Calvin: -- There will be some, but most importantly they know the market and all players and they know how to sell to them.

Alexey: -- But who gets to decide what the marketing message will be for instance or how we position the products and so on?

Calvin: -- Oh, no, we will be making all these decisions and providing sales people with all information they need and they will provide us with feedback from customers.

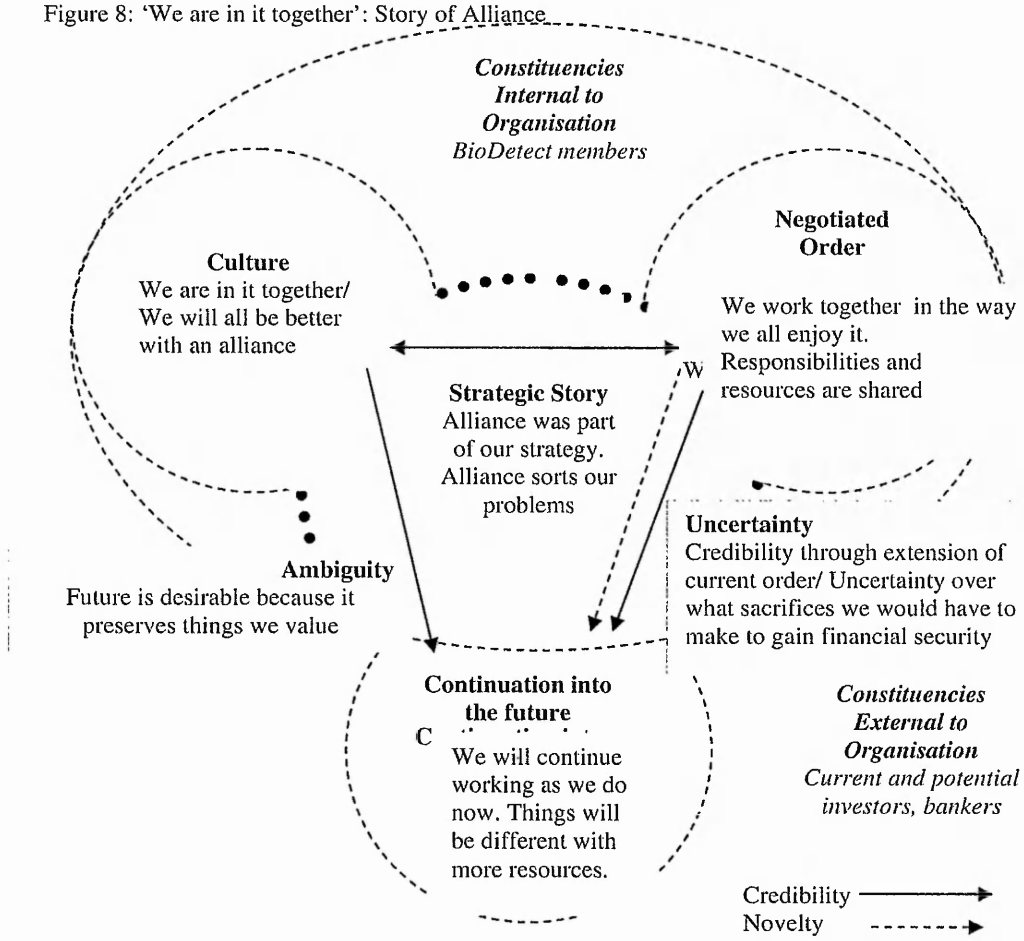
Denis: -- Does it mean technical support will be done through them as well?

Calvin: -- No, we will be doing it direct. Avotec is there to help us start selling fast. We will be doing what we do best – bring out new products, and they are going to help us with it. One great thing about Avotect is that they understand technology behind our products and also how scientists work. BioDetect will retain much of its autonomy.

That piece of conversation had outlined the general idea behind the emerging new strategic story which would be elaborated later. The story of alliance was being made along the lines of the seemingly contradictory statements. On one hand '*things were going to change dramatically soon for better for everybody*' on the other hand '*nothing will change it is going to be business as usual*'. Those two statements were able to successfully coexist within one story as one of them was relating to novelties in organisational order while the other allowed for familiarity through keeping

organisational culture. And although at that time very little detail was provided on how exactly things would be developing, in its crude version the new strategic story was so far meeting the requirements of an effective story.

Figure 8: 'We are in it together': Story of Alliance



However, the new interpretation of the future introduced basis for different kind of uncertainty, uncertainty about *how* exactly the order would change and *how* and *why* everybody in BioDetect would benefit from it. And although the theme '*we are in it together*' had almost remained unchanged the new spin was being put on the notion of who exactly constituted '*we*'.

The strategic story of alliance when referring to the future of BioDetect often failed to

distinguish between '*we*' as BioDetect as it was used in the story of survival and '*we*' which also included the new partner.

Mike: -- We can move manufacturing here for now, but would it be enough for long?
Calvin: -- After we will product train our sales force, we will be able to get an idea of how big the demand is but we'll have to do with what we have here to send first orders out.
Denis: -- And when will it happen, so I have the product file ready?
Calvin: -- We will send them information as soon as it is ready but not before we finalise and seal the deal with Avotec.

As the strategic story of alliance was developing further, the notion of who was included in '*we*' was rather difficult to trace and to make sense of. However, as much of the strategic story so far was dependent on *us* achieving something and benefiting from it, the new spin that was being put on that concept was causing a new degree of uncertainty. The criteria for organisational action, which was something benefiting us as a company, had to be renegotiated in the light of the newly introduced conceptions of '*we*'.

Motivation for organisation action, and explanations of what should be perceived as favourable outcomes of events were managed through numerous changes to the meaning of '*we*'. That approach benefited from a strong organisational culture in which organisational unity was already valued very high and common victory and success was a primary concern of all organisational members. So whenever novelty had to be introduced to organisational order as a result of adjustment necessary to continue with alliance, the notion of '*us*' was broadened to include new alliance partners. In that case

the uncertainty about *why* changes were desirable was addressed almost automatically '*because that was then in our common interest*'.

Effectiveness of the '*we*' concept as opposed to using company name in discussions and story making, was an ease with which levels of enclosure could be broadened or narrowed down even within one conversation.

Calvin: -- We can have sales force dedicated to just LifeDetect and DethDetect products and probably will do so anyway, but we want absolutely every salesperson to have product files and be able to cross-sell. Initially Alex will train our sales force but eventually we will manage part of it as well. (In this case '*we*' is used as a reference to the larger organisation which includes Avotec and its sales force)
Alexey: -- What about marketing and promotional decisions?
Calvin: -- We will keep full control of it as well as product files and just send updates and initiatives to Avotec or to sales people directly or through Alex. (Here '*we*' is BioDetect on its own, without Avotec)

The value of organisational unity and commitment to the common goal which BioDetect's culture inherited from the strategic story of survival made the processes of questioning and clarifying who exactly were '*we*' and '*us*' very uncomfortable in each given discussion. Therefore there was slight uncertainty about what exactly statements like: '*We will remain independent*', '*Things will change for better for everyone*', '*We will start selling fast*', '*We will be doing what we do best*' and similar ones meant.

Processes of sensemaking about meaning of company's identity became also a major part in negotiations and story making within the theme of unity against common opponent as in '*us vs. them*'. It was one thing to have difficulties in making sense of

who was '*us*' than, but it was another layer of confusion when there was a lack of clarity about who the opposition were.

5.2 The theme of unity against common opponent: Us vs. Them

With erosion of a clearly defined concept of *we* and *us* when it comes to the favourable future development, there was growing uncertainty of what *it* is we were in? Therefore themes and processes which could provide meaning for such sense making and connect previous story of survival with the new emerging strategic story of alliance enjoyed much attention and involvement from organisational members.

The theme of unity against a common opponent was the one that blended the two strategic stories into one. That theme remained unchanged from the times of the survival story, at least as far as organisational members of the *office gang* were concerned. The organisational culture at BioDetect still was about backing up resourcefully and emotionally those who had to face the opponent. However in the same way that there were difficulties in resolving a dynamic equivocal meaning of '*we*', there was uncertainty about whom we were expected to see as an opponent. BioDetect's new alliance partner Avotec was an organisation that we wanted to be embraced by and we already used rhetoric of commonality on future orientation, acceptance of organisational order and culture. The way the strategic story of alliance was told BioDetect had no reason at all to oppose or fight the coming merger or acquisition. The benefits that were presented to us by the formal strategist Calvin and Sheri did not have to be offset by anything that BioDetect had to sacrifice. However, personally for Calvin and Sheri there was an issue of giving away ownership of BioDetect in exchange for financial rewards. Financial security was something that was high on value in the BioDetect's organisational culture, but ownership rights weren't part of that culture. These were individual interests which we often were leaving outside of discussion as temporarily irrelevant in making survival story. However at that point they started to dominate agendas of formal company strategists and therefore became exceedingly relevant as

important negotiating resources in the strategic story of the company.

The only aspects of the strategic story where there was clear understanding of sides and opponents were aspects dealing with issues of transferred BioDetect's ownership. It was all tied up to the fact that *we* had to show *them* that BioDetect was worth a lot because *it was* or *was about to b*ecome a very commercially successful company. *"They"* now were clearly defined as all those who questioned any of those very vague statements.

The theme of unity against common opponents was remaining relevant with that new definition of opponent, but rules of engagement had to be renegotiated as we had no criteria to distinguish between victory and loss in the battle. The strategic story provided no internal or external reference to what exactly we wanted our opponents not to doubt. How much is "worth a lot" and why exactly BioDetect should be seen as a *successful commercial company* and not just a great company.

It is in enacting and negotiating of understanding of those highly uncertain but extremely important narratives that the processes of social innovation became more easily to notice and observe.

The task of valuing the company proved to be a rather difficult story. In the case of BioDetect, which had virtually no tangible assets of significant market value, nor proprietary technology and intellectual property of a confirmed value (such as for example universal patents for a widely used technology, for which the current royalties are known) it was a matter of making up yet another strategic story which would engage all interested parties in acting upon it.

I looked at the variety of methods that were available in the literature and after testing

most of them selected those that were giving me similar results of the value X plus or minus twenty per cent.

Calvin was busy reading through the notes he probably took earlier. With so many scientists working in BioDetect large yellow or white notepads became almost like a body extension for everybody in that company. I myself was holding one at the very same moment I was thinking through this idea. Sheri was typing on her laptop across the room.

Alexey: -- Calvin, whenever you have time, I have done those valuation figures we have talked about the other night.
Calvin – Actually 'now' is good for me. Let me just get a cup of tea. Anybody fancies one?
We were drinking tea at the table at which Sheri was still typing on the computer.
Alexey: -- There is definitely no one way to do this and the result could be different tenfold. I have tried couple of methods and these two and half gave me more or less similar value. The third method does not apply to us strictly speaking so I counted it as half. The value that I got was X, plus or minus 20%
Sheri:-- (Still looking at the screen) Then all of them are wrong because we know it should be worth approximately three times more than this.
Calvin: -- It does look a bit modest to me as well. Try running other methods may be they will give different result.

Sure enough later I was able to find a method which gave a more 'reasonable' answer. This was accepted as a working model for the time and was put on the shelf to be used later. But we never did, by the time we needed the valuation figure, it was already the 'wrong value' again.

I think this little story was very important in our scientific culture. I believe everybody was realising that valuation of a start-up biotech company was open for interpretation, however it would be very 'unscientific' to simply pick a number out of the air, it was helpful to know that the necessary number could be scientifically derivable.

However the scientific culture at BioDetect had the other side to it, which was almost the opposite of the above.

Calvin: -- In biotechnology you deal with living cells and sometimes it is difficult to understand what's going on in there, where there is life there is an element of surprise. Biotechnology is not an exact science, you never have the full control and sometimes we have to make a guess when we make theories which explain what we see in the microscope.

(Part of Calvin's explanation to me about why proving the reproducibility of an assay is not a straight forward issue)

Denis: -- Here is the file!

Calvin: – Great, I really need it. Where did you get it?

Denis: -- On Mikes computer!

Mike: -- (looking more puzzled than surprised)??? I think it was just a file, I do not think we have done the calculation on it, I am sure it wasn't agreed.

Calvin: -- It is now!

At BioDetect calculations and rational explanations were as much a way to arrive at the answer as it were the ways to justify the 'right' answer. This belief played a more important role in strategic story making in the company than might appear initially. In

internal negotiations often believing something was right was more important than proving it was right, which meant story makers often could cross in their narratives beyond the limitation of the context.

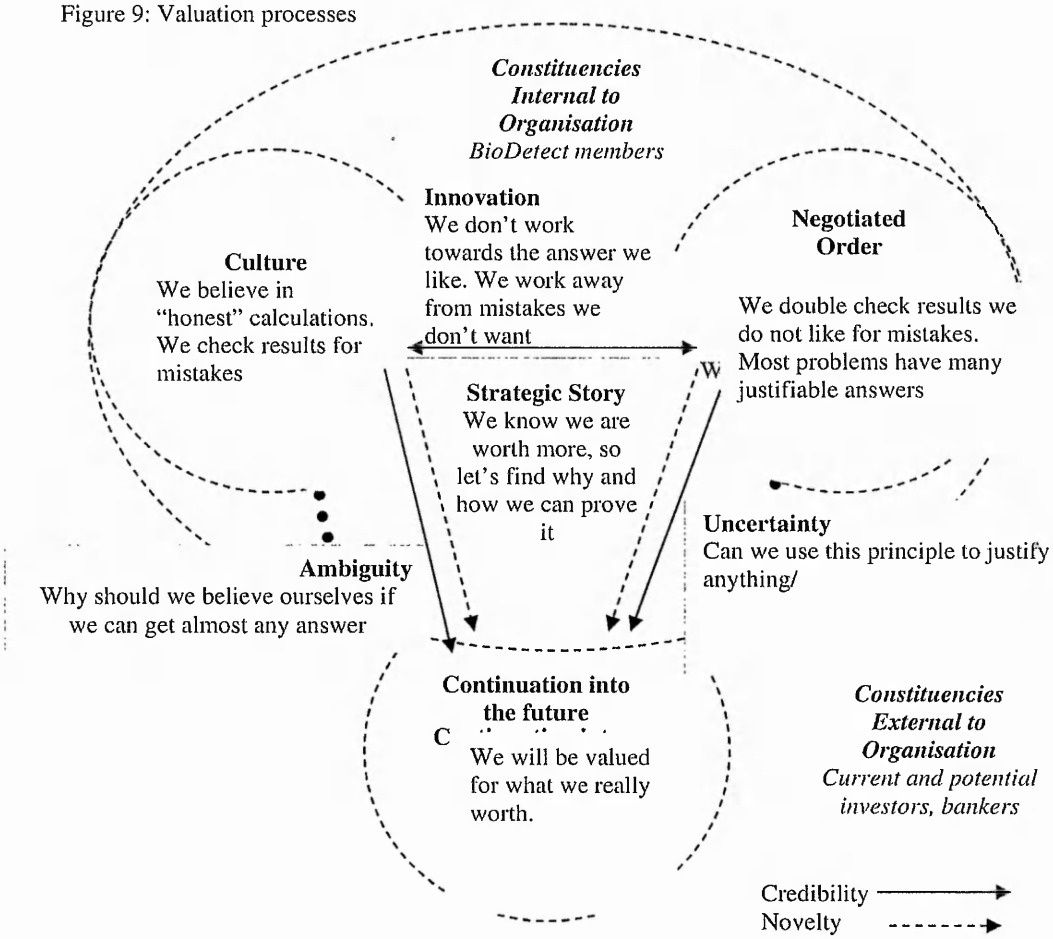
The story of valuation, of how much the company was 'really' worth illustrates particularly well how processes of social innovation allow for new interpretations of the future.

As I described before my initial valuation of the company of X pounds which I believed to be the most easy to argue for value did not support the interpretation of the future which was based on the assumption of the company being worth at least 3X. The uncertainty was about why the company would be valued by others at 3X if our own valuation was only X. That also created ambiguity about what such an outcome mean would: a) we do not believe our own methods b) we will be lying to others c) we will be lying to ourselves or d) something else. The 3X based view of the future was not supported by either organisational order or by organisational culture. The innovation was to come up with a way of calculating the company's value that would make sense and be believable. That was achieved by renegotiating the order of accepting the result of research and calculations and also renegotiating the cultural belief that one should work towards finding the result and not choosing the desired result and finding ways of justifying it.

The way innovation was taking place that time was first through renegotiating understandings of cultural values. Calvin suggested that although we did not want to be seen justifying any desirable outcome, at the same time we want to work away from the mistakes and miscalculations, and we should see the 3X value not as a reason to drop the X valuation, but, as an excuse to search for mistakes in the way it was calculated.

Alongside organisational culture, organisational order gets renegotiated also about how things are done, we do not simply accept the answer, nor do we to work justify any desirable answer, we are just checking for mistakes in the way we calculated it in the first place. This order had to be renegotiated with me, as I was part of it. On one hand I did not want the existed order to be changed as this could undermine my reputation of a person who would bend results for the sake of getting the desired answer, I just would not do it. On the other hand now that the cultural values have been re-negotiated to place value on checking for mistakes, I was more willing to renegotiate and accept different order. No longer did I insist on my results nor was I ready to bend my principles, I was double checking the validity of my outcomes. And in doing so I was able to find a way for the company estimate to reach 3X, as an equally possible value. That meant less discomfort about enacting a future which was based on 3X valuation. Organisational culture and organisational order both have been renegotiated and their new patterns were mutually enabling, while the culture provided explanations of why it was alright to reject the answer, and negotiated order was about how we act when we get the answer we do not like.

Figure 9: Valuation processes



In that situation innovation was used to allow for existing interpretation of the future to be perceived less uncertain and less ambiguous by adding credibility to the story through re-enactments of culture and organisational order. In other situations innovation makes new interpretations of the future possible. In my search for other ways to assess the value of the BioDetect company I decided to invert the logic we normally used in similar situations. The normal logic was – to find similar companies which have recently been going through IPO or merger-acquisition processes, where information about the settlement was publicly available. This way I was able to find a pool of companies which were similar to ours and which were valued in the region of 3X value, I struggled to find significantly higher values. However, when I inverted the logic, I

started looking for the companies which were valued at a lot more but in one way or another lacked the positive attributes of the BioDetect. I was looking for the companies which were unlike BioDetect but which enjoyed significantly higher valuations. I was able to assemble a large pool of companies which all lacked one or more positive characteristics of BioDetect as we understood it, and although many of them possessed other significant advantages, BioDetect looked at least equal among other companies in the whole group. I used it this way of thinking to argue for even higher valuation of around 10X. I than presented my calculations to Sheri and Calvin:

Alexey: -- Actually, I think I can prove that BioDetect's value is closer to 10X figure.
Sheri: -- We l-l-love this figure!
Calvin: -- It is nice to know we can justify this number.

Although both managers agreed with me, the tone of their voices suggested that although they were ready to believe in it, they were not sure others would. It did not feel realistic enough

Alexey: -- The figure is high, I agree, but why not? Actually this is how I approached it this time: instead of asking myself the question "Why the value of the company should be this or that?", I rephrased it and asked myself "Why the value should not be as high as this figure?".
Calvin: -- I think it can be right but it will be difficult to get this kind of price.

In this case innovation was again about the way the value of the company was assessed. However it allowed for the new interpretation of the future which was desirable but was also very uncertain although in a new way. For this story to be successful it had to be acted upon not only by organisational members but entities outside of the organisation,

such as inventors. There was uncertainty about how this new strategic story about new interpretation of the future would make sense in a broader cultural context, whether such interpretations would make sense in negotiated orders of investors. The ability and necessity to make a strategic story involving participants external to the organisation became even more important as the strategic story of alliances was developing into strategic story of performance.

The new strategic story addressed such concerns through innovation processes of renegotiating value and understanding of notions of independency and financial security. Strategic story of alliance introduced changes both to the culture and negotiated order in such a way that they support each other within new interpretation of the organisational future. Organisational order and organisational culture at BioDetect were renegotiated to accommodate new belief that being in alliance (including being acquired) does not necessarily mean loosing freedom in deciding how to run everyday operations. Those two simultaneous changes to the organisational culture and negotiated order empower and justify each other as well as reduce uncertainty associated with the new interpretation of the future.

'*Independence is great and it does not have to be sacrificed for job security*' was the new cultural belief. Independence in a broader sense was being substituted with independence in maintaining own culture and establishing own organisational orders. Importance of independency was not linked to freedom as an abstract notion of not having to answer to anybody, but freedom in choosing how to organise the company. Loosing independence but keeping control of day-to-day operations in the organisation were the two mutually enabling enactments that allowed for the future that assumed tight alliance with a larger organisation be enacted with less uncertainty and ambiguity. As the story was developing further the described innovation was conceptualised as

'*ring-fenced*' company, which referred to organisational order where operational freedom was preserved even if the organisation got acquired by another company.

5.3 The theme of becoming 'real normal company' through structure

There was always a feeling of BioDetect's uniqueness or at least significant difference from the average, normal company in the way it was managed and run. And even if this aspect of the story was not cultivated into a separate storyline or separate theme there were indirect references to how abnormal we were as a group of individuals and as a company. The notion of innovation assumes novel and different ways of thinking, or at least non-standard approach and therefore BioDetect's unconventional culture and organisational order made sense, because we were a company unlike many others, and we believed we were a group of individuals unlike any other.

During informal conversations both at work and outside, jokes were often made about how 'abnormal' or even weird each and everyone of us are, at least in the eyes of others. Everything was brought into the picture to manifest how unconventional we were: from tastes in music and food, to sense of humour and personal family circumstances, drinking habits, social roles, issues about sexuality, embarrassing situations and anything else. To a certain degree such order of things promoted openness and sincerity, values which mutually supported beliefs in trust and common goal. In some cases I felt it was expected to find an odd thing about ourselves to promote the unity of organisational members in the face of the other 'normal' ones. And the opposite of what BioDetect was, was something which we referred to as a 'real company'. However the theme of becoming a 'real company' has become one of the most powerful themes in the strategic story of alliance.

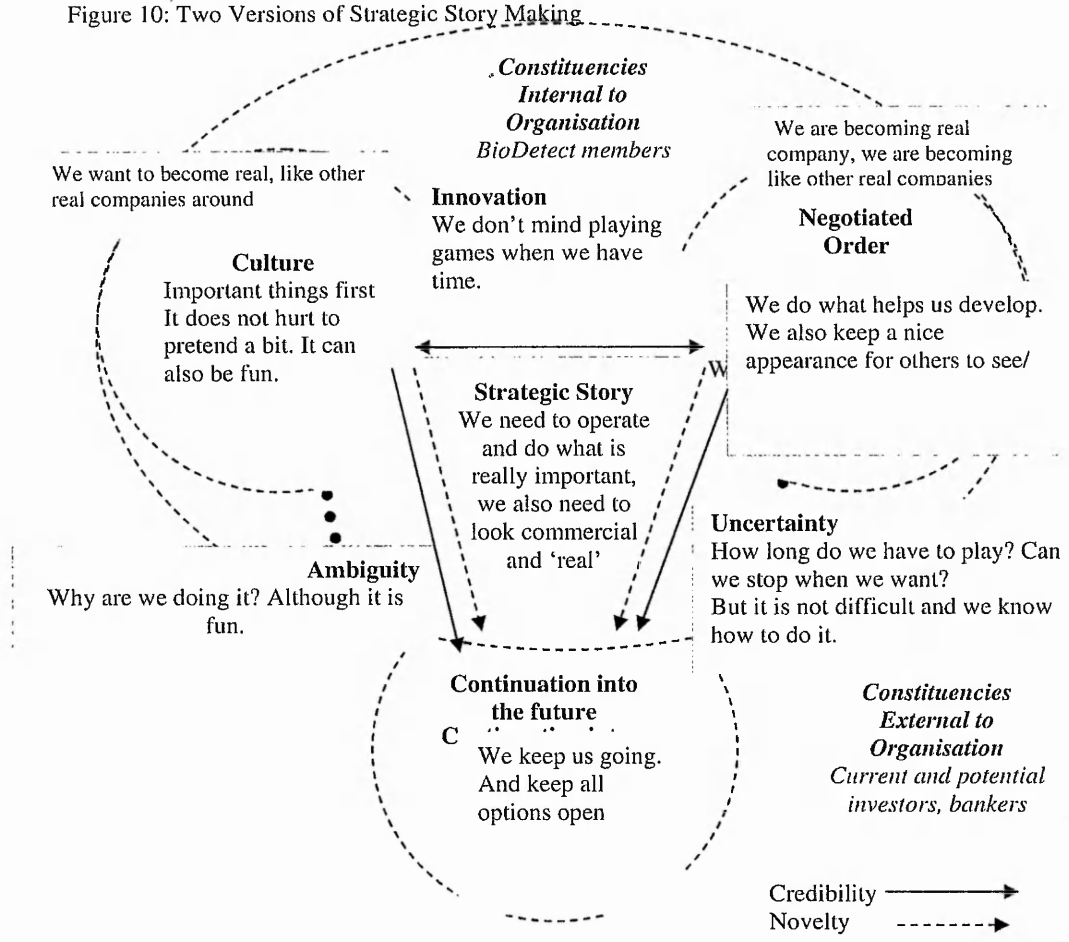
The term was coined by Calvin himself during the first meeting I had with him. And the initial dichotomy of this construct stemmed from the belief that BioDetect was not a

'real company' in the sense of a 'normal company', which was in many respects seen as a good thing, but on the other hand it was the direction the company had to follow according to formal strategists of BioDetect. To resolve those contradictions organisational members often resorted to irony when referring to becoming a real company, as if 'real company' was some sort of a game everybody was playing.

Mike: – I've moved all the files from the storage room and put them in the filing cabinet. They still need sorting but at least they are where they should be.
Calvin: -- I like it! Thank You Mike! We are becoming more and more like a real company (really cheerful with a hint of irony)
Mike: -- Yeah, whatever it might mean (really ironic)

In many instances the concept of becoming a 'real company' was used in reference to situations and rituals which already were accepted as official organisational games, such Ally McBeal meetings or joking about BioDetect being sued over something. There were also occasional situations when the term 'real company' was striped of its ironic meaning to elevate enactment processes to a higher level of significance and importance. Such as a situation when Mike took on health and safety training and introducing necessary amendments in the BioDetect's environment to comply with the law and best practices in the industry. When informing the rest of the gang about the changes, somebody made a reference about becoming yet 'more real as a company'. Mike had to reinforce his point about importance of such things and stresses that it was not his little game he was playing.

Figure 10: Two Versions of Strategic Story Making



There was one aspect of being a 'real company' which was not treated as a game, it had to do with commercial success of BioDetect's products and at that moment in time that meant – start selling. Working towards 'real sales' or achieving 'real volumes' was something that was taken very seriously and enjoyed high level of significance in any processes of organisational negotiations. The best way to describe the difference between the two connotations of the 'real' construct when referred to BioDetect as a company is to think of a difference between 'being real' and 'becoming real'. Being a real company with real sales which can provide financial means for the organisation's continuation into the future was something BioDetect as an organisation put a lot of value on, but at the same time the process of 'becoming a real company' was often treated with irony. The underlining theme was that the processes which were singled out

as processes of 'becoming a real company' were more often associated by organisational members with 'appearing real'. However the significance of 'becoming real' was beginning to change as the strategic story of alliance was further enacted.

The strategic story of alliance demanded new enactments to maintain commitment of external investors towards proceeding with the alliance and accepting it on the favourable terms for BioDetect's formal strategists. The story of alliance as enacted for the external investors was initially based on the novelty that BioDetect's technology was contributing to the resources of the newly found partners. Novelty which was associated with BioDetect and its products offered new favourable interpretations of the future for investors and the strategic story of partnership and alliance was engaging them in the processes of enacting such futures. Calvin and Sheri were extremely successful in enacting and developing the novel part of the strategic story by referring to such commonly accepted indicators of novelty as pending patents, relationships with government agencies set-up to support significant innovations in the field, positive reactions to Calvin presentations at large pharmaceutical companies, warm reception at conferences and the amount of citations. All those indicators referred to values which represent novelty in biotechnology industry. What the story needed at the time was familiarity to legitimise commitment to the new future, a future in which investors would become closely involved with BioDetect.

Becoming a real company and becoming one fast was the theme which was being enacted to give credibility to the story. The difficulty was in different perception of external and internal organisational entities about what was making the company real and financially attractive asset. For externals it had to appear 'real', that is to have resemblance to other successful companies, while internally such mimicking was going in many ways against the culture of uniqueness and difference.

Separating organisational story into two parallel stories aimed at different audiences helped to maintain relative effectiveness of each of them without the need to significantly challenge existing organisational order and culture. However it would be unwise to think of these stories separately or analyse them separately mainly for the reason that they both were known to organisational members and therefore they both informed actions and negotiations of all organisational members. And although there were two different versions of *how and why* things will develop further depending on the context, the strategic story of BioDetect as an organisation was a story of '*two stories*', or to be more precise of creating a '*second story*'.

Applying the conceptual framework to analyse effectiveness of the twist about *'the second story'* allows drawing a conclusion about its relative effectiveness. It addressed main uncertainties of the alliance story about the equivocal character of *we* and *us* by introducing criteria for separation. Those who knew the '*first*' story were *real us*, while the rest who knew only the second '*story*' were *other us*. It also became a source of meaning about *how* BioDetect would be able to maintain the existing organisational order and organisational culture which praised self management, celebrated differences, unconventional approaches and behaviours, and at the same time to gain financial resources from external investors to support it. The social innovation which was orchestrated and enacted by formal strategists and other organisational members was in legitimising '*normalising*' parts of organisational order as another unconventional way to appear '*real*' in order to maintain what is valued and praised (see Figure 10, above).

The existence of the second version of the story for broader context was not treated as deception of BioDetects partners-to-be. There was a clear understanding of the need to succeed in commercialisation of the existing products and products still in the pipeline,

and the future orientation of both versions of the story was dependent on achieving that commercial success. Both versions had similar interpretations of what had to be achieved, but there were differences in enacting *how that can be achieved.* In many ways the strategic story of BioDetect during that time was about which story was true and why. Nevertheless, that theme of multiple-realities would probably remain at the level of odd curiosity in the transitional period of agreeing on the terms of alliance with Avotec, at the end Avotec was a company of scientists, dealing with scientists and understanding the way they operate. Discrepancies in two versions of the story when blended together after the merger would probably erode quite swiftly, but there was a rather sudden change of events in the BioDetect's history in which the second-version strategic story emerged in a different pattern.

My personal most active involvement with organisational story making at that time was limited to the processes of company valuation. Any further negotiations with Avotec were managed exclusively by Sheri and Calvin, while the rest of the company was living the routine life negotiated around beliefs of going through this period of battle with Avotec together, supporting our front liners and hanging in there waiting for them to come up with victory for all of us.

It was already past the normal office hours, I was as usually taking advantage of flexible work scheduler but was a bit surprised that Sheri and Calvin were also still in the office working in the other room. They came in very happy, smiling and very excited.

Calvin: -- This is very historic; I want to keep this BiC pen we are using to sign the deal as a memorabilia of this historic moment.
Sheri: -- So I guess this is it? We a making the right thing!

Calvin: -- Of course we do! But it is not over until it is over.

Alexey: -- So this is the final verdict you signing?

Calvin: -- Yes, this is the deal with Avotec and we know we've done the right choice. They are a lot closer to us in terms of the sector they work in, they speak the language and they are very supportive in our desire to remain relatively autonomous.

I had the feeling that final revision they talked through was as much for them as it was an answer for me. I really felt the significance of the moment, when they put the pages in the fax machine and watched them going through. Finally the last one was sent and the machine printed confirmation slip.

Sheri: -- This is it! Done!

Calvin: -- We need to go celebrate it.

It seemed that the battle we were all in was finally over, when the next day Calvin received a phone call from BioTrack's American parent company Selex inviting him and Sheri to come to their American office for urgent meetings.

Sheri: -- We still can go, we have nothing to loose.

Calvin: -- It is not over until it is over. Of course we have nothing to loose.

Chapter 6: Sell-out and Organisational Culture crises

6.1 Introduction

When Calvin and Sheri returned from America they were extremely excited and talked how they had been received there and treated like true VIPs. They told Mike, Denis and me things were looking even more exciting now and Calvin joyfully asked for the file on company valuations because the last 10X version, '*believe it or not*' could become relevant. For the next two weeks BioDetect operated as if nothing had changed apart from the need to renegotiate the price of the deal as there was no other information available for sense making regarding future developments. Sheri and Calvin quite literally and formally removed themselves from managing the company for almost the next two weeks.

Calvin: '*I apologise but Sheri and I will be spending very little time in the office and you will have to manage it on your own guys. I will let you know more as soon as I could, but it looks like things going to change fast from now on*'.

In many ways BioDetect slipped back into the known patterns of *us vs. them*, and *we are in it together* and objectives were almost the same as during the survival period: to back up those in battle and survive in the mean time.

The office-based part of BioDetect kept working on existing projects, however, there was an increased feeling of uncertainty about where we as a company were heading. It started at operational level which required Calvin's and Sheri's involvement at the decision making points. The existing organisational order was well suited to handle

those situations mainly through self management which implied making our own decisions based on available information. However that time the difference was in the newly negotiated organisational order which was characterised by information shortage and lack of a whole-picture perspective which would allow organisational members to make informed decisions. The negotiated organisational order of BioDetect at the time was not effective in situations of informational vacuum and lacked alternative ways of organisational decision making.

Although there were some clear signs of concern about decision making and future orientation of the company they, however, did not escalate to any motivational crises. Mike, Denis and me at various times kept reminding each other that the situation would resolve itself pretty soon and because both Calvin and Sheri looked pretty happy most of the time we simply accepted that we could afford some inefficiency in that period. BioDetect as an organisation was going through a slow-motion period in terms of negotiating organisational order and culture as many sensemaking processes were postponed until later times when new information would be available from formal strategy makers. All previous uncertainties about *why* everybody had to support that new interpretation of future, and *how* it was going to work to everybody's individual, personal and organisational advantage were back in question. At the same time there was a belief that it could only be better than the previous interpretation of the future.

6.2 Staying in charge but loosing control: new organisational order, same organisational culture

Finally all legal aspects of the acquisition processes had been settled to the sheer satisfaction of all BioDetect's shareholders. There was no formal announcement of how much BioDetect was sold for but it was prompted by Calvin that it was not far from the highest estimate we had in the scrap books. The major difference from the Avotec deal was that Selex was paying part of the value in cash and part with its own stock. There were also performance related compensations and incentives for managing directors and shareholders. The deal with Avotec on the other hand was mainly shares-for-shares deal with little if any cash compensation.

In many ways signing the deal with Selex was a big personal relief for Calvin and Sheri. After years of keeping the company afloat with their own money and various government grants they were rewarded with financial security they hoped for. The deal with Selex was transforming their personal lives though financial wellbeing but it also changed their formal roles and status. Not only had they remained executive managers of BioDetect division of Selex they also had a say in how the parent company was developing. It was truly a honeymoon period when everything looked optimistic, positive, and under control.

The expectation bubble did not burst with explanation, however the pace of change started to develop exceedingly fast. An alliance with Avotec was out of the question, it was then a matter of how to get out of it with minimal problems and negative consequences. Tri-partite negations of which I have no detail allowed to resolve that matter within just couple of weeks at most. Selex appeared to be a totally different company compared to the partner we almost settled to merge with.

Calvin: -- Selex is huge! It is a multimillion company with thousands of employees and they want to make a move into life sciences. They are investing millions in innovation and R&D, building state-of-the-art research centre and they see us as one of the front runners in HTS cell assays segment. This means stability for the company and large financial resources to do what we need to do. They will be coming over here to see how we are doing and help with things.

One thing that remained unclear was the understanding of *how* all that changed and a sudden turn in choice of acquiring partners was translating into personal agendas of most organisational members. Temporal detachment of formal strategists during the negotiation period raised issues of whether previous themes in organisational culture such as *we are in it together* were still valid. There was also a great deal of confusion about how profound would be the change. Claims made by Calvin ranged from '*it will be very different*' to '*it will be business as usual for us*'. New available information and negotiation processes did not address the increasing uncertainty about the effect of new developments on the individual destinies of the organisational members. Apart from Calvin and Sheri most organisational members found it difficult to share in much of the excitement about merging with Selex as opposed to staying with Avotec. New information coming from formal strategists about future orientation of the company was not consistent with the level of significance that they assigned to it and instead of addressing uncertainty it was contributing to already existing worries about possible changes to organisational culture and organisational order (See Figure 11).

Calvin: -- It is going to be very different very soon. Selex has tremendous resources available to develop us but in the mean time we need to demonstrate we are becoming more commercial. We have agreed on the plan and deadlines and we have to meet them. The good thing that they do not want us to change the way we work now, they want us

to be the way we are but help us to achieve our targets faster.

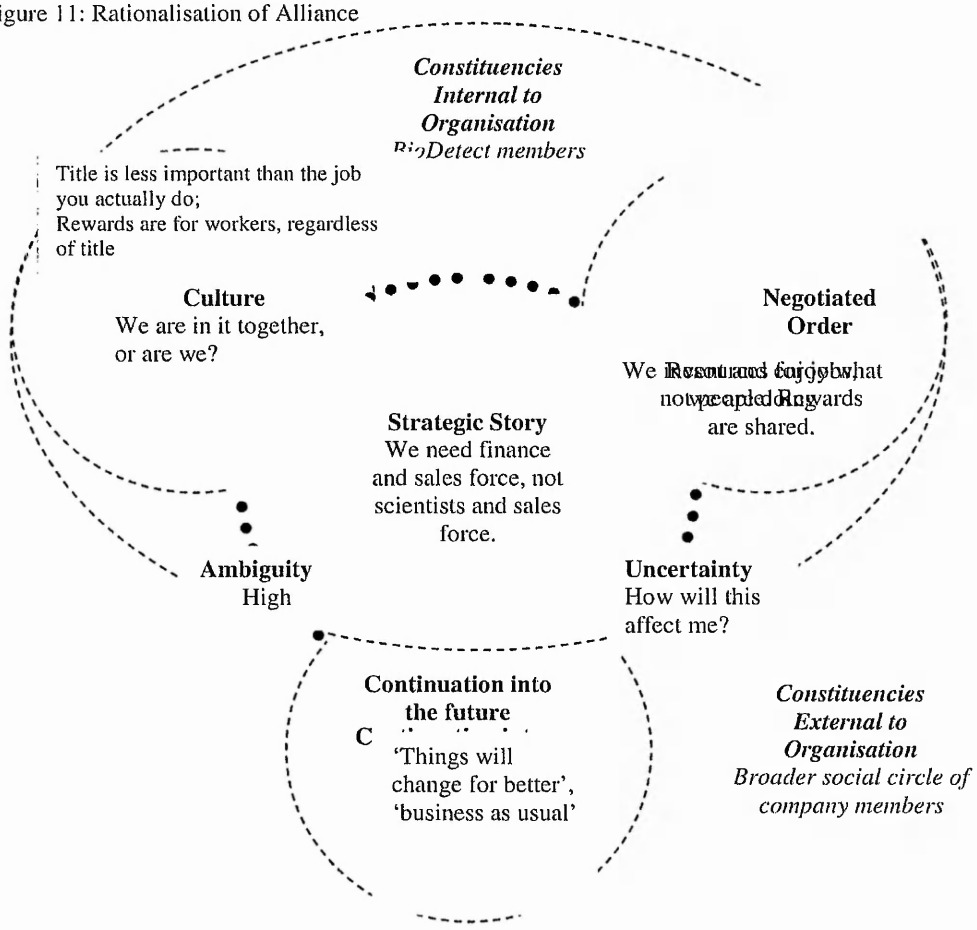
Mike: -- That's good to know.

Calvin: -- Everybody is going to benefit. From what we know Selex has great pension plan for employees.

Mike: -- And when ca we expect this to happen?

Calvin: -- Any time now.

Figure 11: Rationalisation of Alliance



Although the company was going through a significant change, if not the biggest change in its history there was no formal announcement of what was actually happening. The information was not so much withheld as it was not easily available.

Messages were dropped here and there, to one person or another at various times and locations. Most organisational members including myself were left to piece together the jigsaw puzzle of what was going on in the company. The most formal explanation was relatively brief and happened during one of the weekly planning meetings which now were becoming less regular. The overall message was that all previous advantages of being in a alliance with a large organisation still stand but there are many new advantages most of which could not be disclosed because of confidentiality issues.

Calvin: -- I have to apologise to you guys that you have not seen much of me or Sharon these last two months but things will be changing very fast now as we have the resources to do what we always wanted to do. We need to start manufacturing and start selling and bringing new products to the market. Selex wants us to be a front runner for their Life Sciences division so we will get pretty much everything what we ask for as long as we keep doing what we do best with our technology.

Alexey: -- So is it business as usual or something will dramatically change? Will we get another American boss or will you stay in charge of everything?

Calvin: -- I will still be MD.

Mike: -- Bugger!

Calvin: -- There is also Jackie who will be helping us with sales and communication in the US.

Alexey: -- But she is not your superior?

Calvin: -- No I answer directly to the Head of Life Sciences Division, and Jackie is there to help us, not the other way around. I do not know yet all the details myself as we still agreeing on plans but things will be moving very fast from now on. It's going to be exciting.

Uncertainties about what the future of the company would be, how it would be achieved and why it would be a desirable future were all addressed by promises of improvements in the nearest future. Essentially the strategic story has not changed since the deal with Avotec. According to Calvin the only thing that was changing was the amount of benefits BioDetect and its stakeholders would be getting. However the changes in organisational order of BioDetect soon became apparent through conversations and negotiations about improvements that have been promised.

One of the major uncertainties that was emerging since the acquisition by Selex was confusion over where the new limits of Calvin's and Sheri's decision making power were. The issue initially was developing within the '*we are in it together* theme. The acquisition was praised as achieving one of the major company goals. In the strategic story of the company it was the place of destination in many ways. In many ways there was no story beyond that point. It was a place where rewards would be ripe and where everybody should benefit personally. The semi-formal announcement about BioDetect being acquired by Selex was delivered together with confirmation of benefits that were coming with this deal such as pensions, new roles and titles. That announcement brought issues of individual benefits into open discussion with formal managers. Those discussions however revealed that Calvin or Sheri had little control over how fast and to what extent the promises would be fulfilled.

Mike was typing on computer when Calvin stopped by his cubical to collect one of the print-outs.

Mike: -- By the way, now that pensions have been mentioned I wanted to know when we can expect this to happen? It has been several weeks now. Has it been discussed or ...

Calvin: -- Yes it has been discussed but it is something which is not directly within my

control, but I'll ask finance and accounts department of Selex when they plan to do it.

Mike: -- I'm also doing these stock management reports and sending them over the ocean. Is it a one off task or should I expect to be doing it on a regular basis?

Calvin: -- I hope it is not too much trouble because I think this probably will be the case. We have to follow Selex's paper flow and accounting standards as well.

Mike: -- It's no trouble but I need to find time to do this, especially with invoices. It would be nice if I can be trained to use their system and log in information directly rather than send reports for them to input again. Another thing, if I will be doing this we will need someone else to help me with administrative duties.

Calvin: -- Yes you right, I will talk to division if we can get 'Santa's Little Helper' to free your hands of some office work.

It was a conversation similar to the one above that gave clues about what Calvin could and could not decide on his own since the acquisition. This was also the usual way to find out about additional tasks and jobs which often started as a one-off task and then converted into a standing responsibility. The important thing that this and other similar conversations revealed was that another higher authority had decisive power over BioDetect future development both strategic and operational. On one hand having to deal with forces and powers that were out of immediate control of the organisation was not something totally new, on the other hand those forces and powers were rarely personalised. The major area of uncertainty for most people within the company including myself was to understand where exactly the boundaries of Calvin's control in matters concerning BioDetect were.

If there was clear organisational management structure with more or less clear division of duties and work description then it was not communicated to most organisational

members. Calvin was now being invited to the board meeting in the USA and participated in decision making at a much higher level, influencing international development of Selex Life Sciences division. He very much enjoyed that new role as it was according to him 'giving me an international perspective and a chance to be at the heart of things'. At the same time it appeared Calvin had little control over remuneration packages and hiring decision within BioDetect itself.

The situation with Calvin's new status added another layer of uncertainty to the whole range of strategising processes. Confusion over the limits of his authority made it difficult for him to exercise negotiating power he used to have in pre-acquisition BioDetect. He became more cautious about making promises and giving guarantees. On the other hand it was becoming apparent there were certain obligations to Selex to be fulfilled. Calvin went partially open about those obligations at another weekly meeting (which were not as regular as before and they also lost the role-playing element of Ally McBeal in them).

Calvin: -- Selex wants us to move fast and launch new products as soon as possible. We are still agreeing on the dates but scheduler is pretty tight. We will be getting new equipment to set up larger manufacturing facilities and then we start selling. This means we need to product train their sales people by that time.
Andrew: -- And when do they expect us to launch the new version of DeathDetect?
Calvin: -- As soon as possible. We are scheduled to start generating sales on it within three months from now.

There was a short moment of silence as everybody processed that information. There was hardly anyone at the table who believed it to be achievable. However no one chose to make such a statement, there was no need to repeat what everybody including Calvin

already knew.

Calvin: -- The date is not carved in stone but we have to operate within the budget and reach sales targets. If we deliver I'll have more freedom with spending budgets as well. When can we realistically launch DeathDetect Update?

Andrew: -- It would take us just over a month just to scale up manufacturing and QA [quality assure] the first batch.

Calvin: -- What about product files, what state are they in?

Denis: -- They need to be proof-read by you guys (nodding to Calvin and Sheri) and we still need some data from the lab.

Sheri: -- I'll start doing it today and we do not need to wait for all the papers to work on product files, we'll put them when we have them.

Calvin: -- Alexey, do you think you can sketch a template for product launching with deadlines and critical cut-off points? It will be useful for me when I talk to Selex and we can also use it for future product launches.

Alexey: -- Sure, I'll give it a go.

Andrew: -- We might already have appropriate software to help you if you want to have a look at it.

That conversation was changing the perception of how BioDetect would be working and it meant the end of the old organisational order. It was no longer self-management or management by involvement, it became management by targets, targets that appeared unrealistic at the time.

Loyalty towards the company was still strong due to strong organisational culture which praised team spirit and involvement but new tensions started to build up. It turned out that alliance with Selex meant increased work load, increased levels of stress but little

immediate rewards for the team apart from the owners. There was still plenty of loyalty to Calvin as he was struggling to improve everybody's position in the company, but the theme of *we are in it together* was loosing its relevance. As one person in the company had put it *'I don't mind walking an extra mile for this company but now I need to know why I am doing it'*. It was becoming increasingly difficult to make sense of why management and the rest of the organisation were together in that new order of things. There was a growing frustration as many individuals felt they did not share in the success of the sell-out, prospects of better wages became dimmer and delays in rolling-out the promised pensions scheme did not send optimistic messages either.

The new strategic story of developing as a part of a 'real' company was neither exiting with novelty nor was it based on established organisational culture and organisational order. There were doubts and uncertainty about how it would be possible to achieve new targets which were seen as unrealistic from the start, but more important there was no clear way to understand why anyone would want to work towards this future. There was a general feeling that something had to be done about the whole situation and Calvin was looked upon as a person who would have to resolve it.

6.3 Fighting own strategic story

Since the emergence of '*us vs. them*' story there was a clear understanding that there was another strategic story made for the outsiders. That story was of BioDetect being a '*normal real company*'. All organisational members were rather happy to play along and project an image of the company run and operated in accordance with expectations others might have about a typical commercial enterprise. Internally the focus was always on committing the best resources and hoping for the best result and that made sense in the culture of scientists who expect to run into unexpected as they proceed. To a certain degree it was an industry standard to speak of work in progress as something almost finished and confirmed. That was one of the ways to cope with uncertainty and extended research processes which could fold at the end stage. In those terms any biotechnological company was by default speaking of any work in progress as a successful project on the brink of turning into a commercial one. Within biotechnological scientific discourse BioDetect with its two finished and ready to market products was already by-and-large a commercial company.

Selex was not a company of biotech scientists it was a company of investors and project managers they had taken on BioDetect's story of '*a real commercial company on the edge of inevitably slipping into high profitability*' with a different set of expectations. One way of how different perceptions of the two companies were can be illustrated with an example of a conversation I had with a scientist from Selex's newly acquired Excellence Centre for Life Sciences in the US. She was originally from Eastern Europe which helped to break the ice and have a very informal conversation about her job at the Excellence Centre. She explained how she, a scientist with doctoral degree from the top US University in its field was paid good money to run relatively simple tests and experiments but was a major asset to the company when it came to visits from major shareholders and potential investors. Her full academic title together with a catchy name

for the research centre she was based at was '*working magic*' on investors who liked to see '*top notch innovation*' in the company they were investing. She also added with a smile that Selex management strongly believed in that too. For Selex appearance of processes counted very much for the processes themselves when it came to science and innovation.

BioDetect had plenty of positive attributes for assessing its innovativeness and strong R&D practices but it also had a great number of independent sources they could quote which supported that position: conferences and conference feedback, quotes by major journals and papers, government and industry awards for innovation leadership and many others. But what was even more important it had a significant number of attributes of successful commercial practices: manufacturing (although on a small scale), sales and distribution (although mainly trial-and-test kits), extensive dialogs with large pharmaceutical company's (although no signed deals).

Selex was happily buying into the story that was enacted for them and was happy to commit itself to that enactment by becoming part of the story. Following the acquisition Selex became one of the principal resource holders for BioDetect and its bargaining and negotiating power began to dominate processes of organisational story making.

Calvin's rhetoric about the pace of change in BioDetect was not only about something organisational members had to experience but also something they were expected to achieve. At the same time as Calvin promised fast developments to BioDetect's organisational members he also promised it to Selex. It was not so much a formal promise as an extension and further development of a strategic story of BioDetect in which it was already a '*real*' commercial company. Business plans and cash flows had been drawn in accordance with beliefs about BioDetect being capable to switch to

commercial exploitation of its R&D potential within very short period of time. Selex was no longer on the receiving end of organisational strategic story it was acting on it and developing it. There were still two versions of strategic story in BioDetect but that time there were doubts about which one was the *true* one.

The conflict between the two versions of strategic story resulted in a power struggle of two formal strategists. Jackie was a Selex appointed US-based coordinator of BioDetect. She had a background in project management and marketing and was trying to impose a system of check-points, deadlines and measurable controls to monitor BioDetect's development along the agreed road to commercialisation. She was talking budgets, progress reports and schedules, however, unfortunately for her she could not get anyone in the company to commit to any of those.

Andrew was now spending a lot more time in the business quarters of BioDetect. He was setting up and overseeing work on construction of the new lab facility across the corridor and right now we were having a small chat over a cup of tea at the meeting table.

Alexey: -- There is no way we can launch anything by the date Jackie has in her book.

Andrew: -- No, I don't think so. We have not even started to scale up the production.

Alexey: -- Correct me if I am wrong but this alone will take over two weeks.

Andrew: -- We can probably do it in five days if we are lucky and everything goes fine the first time.

Alexey: -- And what if it does not?

Andrew: -- It normally does but I can not guarantee anything.

Alexey: -- So for the purpose of planning and reporting should I put something like ten days for it?

Andrew: -- I would not put anything. It can be five days or it can be twenty days we just have to see.

Alexey: -- And what about the second launch which is scheduled within a month and half of this one? Is it out of the R&D by now?

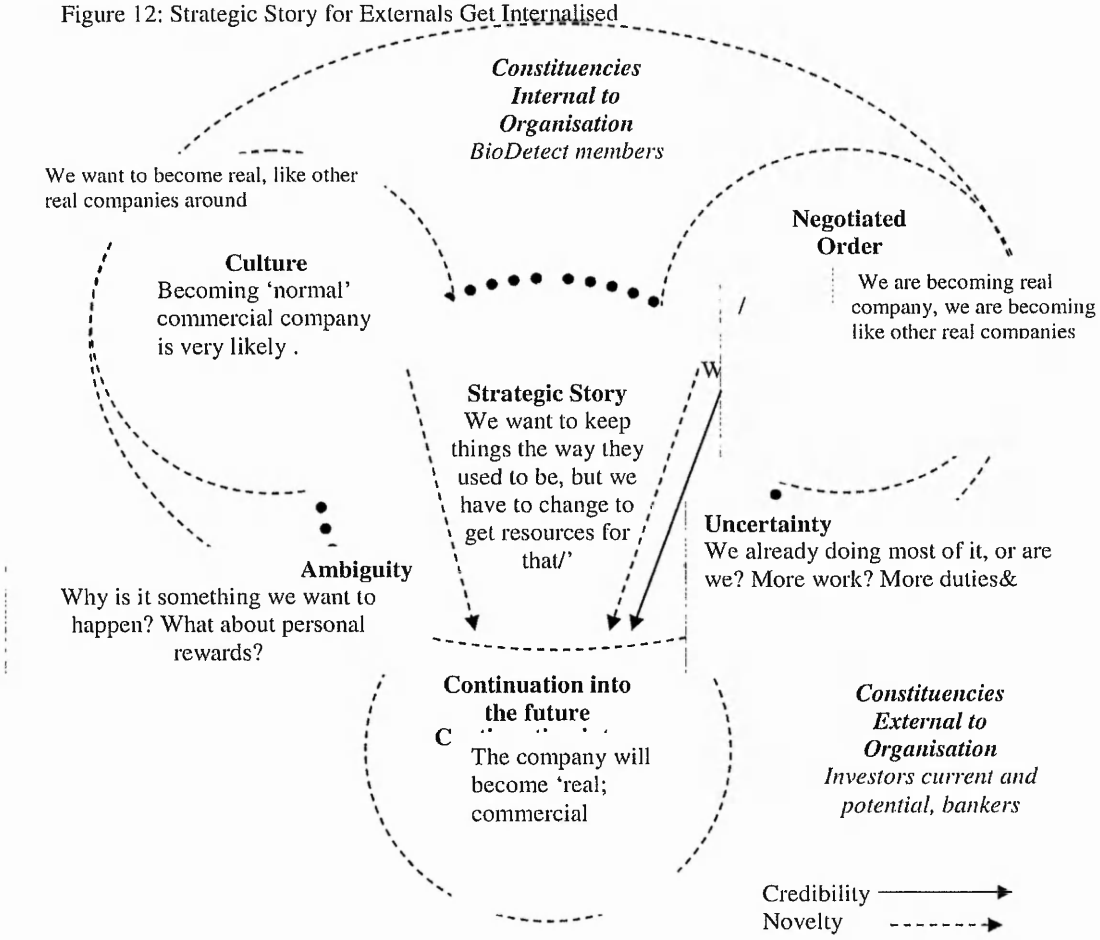
Andrew: -- It still keeps surprising us from time to time and we need to make it more reliable still.

Alexey: -- So it's a "no" I guess.

Andrew: -- I would not count too much on it.

That conversation was a typical example how Jackie's deadlines were treated. There was no open resistance or protest against imposed unrealistic targets. Everybody was simply doing their job and always had an excellent genuine explanation why things were running late. Calvin himself knew it better than anybody else but by acknowledging it he was going against the strategic story he was making before.

Figure 12: Strategic Story for Externals Get Internalised



Calvin's decision was trying to balance old and newly emerging orders within the frames of old organisational culture that everybody so much valued at BioDetect. New projects had been launched aiming to satisfy needs for control and reporting culture of Selex but at the same time preserve the process oriented approach BioDetect used to have prior to acquisition. An example of such projects was a newly developed model for R&D project monitoring, which was constructed in ways that had built in flexibility and room for unexpected delays for most processes but on the other hand allowed to maintain an overall perspective over critical deadlines. Other examples included outsourcing or sharing certain task such as stock management to Selex managers through remote administration and database management. Sales and revenue targets were gradually becoming a concern of the sales force in the field rather than a direct

responsibility of BioDetect's management.

Additional difficulty in implementing those new instruments and processes was Jackie's strong resistance towards anything that resulted in her loosing control over processes in BioDetect. She insisted on sticking to the original plan and was constantly investigating reasons why deadlines have not been met and plans have been put aside. As a result of that Calvin was spending a large part of his time generating explanations and reports and fighting off new initiatives which would formalise processes in BioDetect beyond desirable flexibility. At some point it became personal. Jackie was finding herself out of work to do and was getting involved in marketing and promotional activities, something that Calvin and Sheri felt very strong about keeping to themselves. It was not long before jokes and nicknames started to appear and mistakes of each other were welcomed rather than prevented.

The resistance between Jackie and Calvin brought back the flavour of the *Us vs. Them* theme that was part of the strategic story of BioDetect for a long time. But in that case it was different. There was an understanding of difficulties and compassion towards problems of Calvin and Sheri as strategists who had to deal with new authority, but there also was frustration about fast changing roles, increased responsibilities and vague prospects of rewards. Eventually Calvin made it clear to the division that someone had to go and Jackie was relieved of her duty and her position was removed altogether.

The irony of the situation was that after emerging victorious from the confrontation with Jackie, Calvin found himself in a slightly similar position. By outsourcing unwanted responsibilities for sales and revenues to the sales department, together with selling out the owner's negotiation resources which used to maintain previous organisational order and cultures Calvin had designed himself out of the important strategic negotiations

about BioDetect as a company. Self-fulfilling prophesy of the strategic story about *inevitable success* of combining well trained and experienced sales force together with BioDetect's great pipeline of R&D products and capabilities made entrepreneurial style of management adopted by Calvin and Sheri (but particularly Calvin) inappropriate in the enactment of BioDetect as a Selex company. While resolving contradictions about internal and external versions of BioDetect's strategic story Calvin succeeded in outsourcing most of the commercial concerns to other parts of Selex.

Alexey: -- Long time since we had a chance to talk like this.

Calvin: -- I apologise for not finding time, Alexey, but Jackie, as you know, has a talent to keep people busy with … stuff.

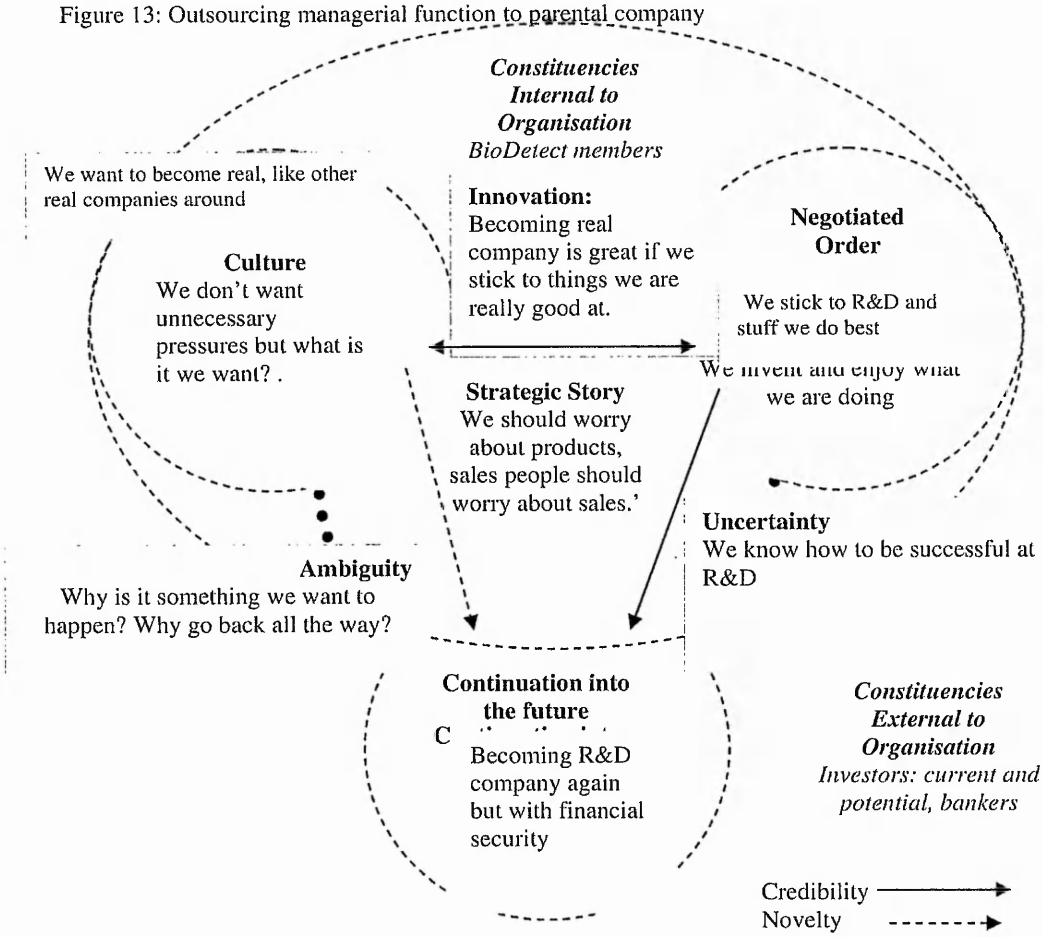
Alexey: -- No need to apologise I did not mean it like that at all. Loads of things have happened recently. Are you happy how they are developing?

Calvin: -- Yes, I think we are doing very well. Sales start coming in slowly and we are trying to get Alex to manage Selex's sales force in everything that concerns our products. We should launch another bacterial kit in the next couple of months; I think we are getting back to normal after all these changes. We are a real company now.

Alexey: -- Somehow you do not say it in your usual optimistic way.

Calvin: -- I am just a bit tired but I think a quite weekend will do me good.

Figure 13: Outsourcing managerial function to parental company



Calvin's evaluation of BioDetect was very positive, however, new processes and developments at the company could be seen as an indication that it was slowly revolving back to a predominantly R&D organisation (See Figure 13). If those processes continued BioDetect would cease to remain a commercial organisation in a sense of commitment of most of its members towards it rather than the parental company. In absence of commercial organisation most functions including strategising and especially formal strategising would become obsolete and formal strategist would have to either leave what would become BioDetect or switch roles for something else. Someone had to make a move to make another turn in organisational strategic story.

Chapter 7: Conclusions and suggestions for further research

The present research project aimed to answer the call for development of new theories of strategy and strategizing from the position of process informed perspective articulated already (Van de Ven and Rogers, 1988:632). The research agenda of this study was to develop a new conceptual framework to make sense of the strategic process and the way they are enabled by organisational culture and socially constructed orders. Specific emphases were put on making sense of social processes of innovation and their interplay with other strategic process and perceptions of uncertainty.

Case study and ethnography were chosen as research design and data collecting methods to allow for contextual analyse of the organisational processes over a period of time of two years. The choice of research subject was made in favour of the small biotechnological company in transition from research and development into commercial operations. This choice provided opportunities to analyse strategic processes in the context of higher perceived uncertainty and innovation.

As a result of the research project the new conceptual framework is being suggested for analyses of strategic process in organisations. The framework adopts the view of strategy as a narrative and uses Shklovkys' (1990) (see also Berry:1997) concepts of credibility and defamiliarisation to define an effective and engaging strategic story. The organisational context is conceptualised as interplay between mutually enabling patterns of organisational culture and organisational negotiated order. The processes of social innovation are analysed and made sense of in relation to broader strategic processes and their role in allowing new favourable enactments of organisational future. The suggested conceptual framework also helps to make sense of how processes of social innovation helps to manage both the uncertainty and ambiguity that organisational

members might experience about the new interoperations of future enacted through strategic process.

The research has shown that the developed framework allows sensemaking of *why* and *how* certain strategic processes have a desirable effect on the company while other processes fail to do so. By relating strategising to immediate and broader organisational context it was possible to identify situations when uncertainties about organisational future were not properly managed and led to loss of commitment of resource providers to the organisation. At the same time applying the concept of story making helped to make sense of *why* and *how* certain successful patterns prevailed in organisational strategy by being relating to the familiar processes and orders and yet introducing novelty which allowed for favourable interpretation of the future.

Similarly to the literary narratives it was possible to identify particular recurring themes and patterns in organisational strategising which successfully secured engagement and commitment of organisational members and resource holders time over time. And although no generalisation could be made about cause and effect relationships between particular actions and individual outcomes it is possible to generalise at the process-relational level. (Watson, 2001) In other words how certain social processes of sense making relate to each other in an organisational context.

In short, major contributions of this doctoral research project are the new conceptual framework itself, which allows for new useful ways of conceptualising strategy and especially applicable to situations of high uncertainty; and a number of successful patterns in strategising which this framework identified.

Unlike other academic works in the field which tend to focus on the importance of a

particular aspect of organisational phenomenon in the development of successful strategy, such as culture or structural enactments, such as routines and orders, this thesis and the framework it offers, accepts the importance of both of these domains and treats them as mutually enabling. Loosely separating patterns which emerge out of organisation life into organisational culture and organisational order this framework allows both for identification of sources of sensemaking resources for effective strategising but at the same time stresses the importance of interdependence of organisational culture and order and the need to keep them in a mutually enabling balance within mutually enabling constraints.

This work goes beyond the concept of strategic story telling and offers a new concept of *strategic story making;* it includes analyses not only of conversations shaping organisational life but also includes practices of strategy and outcomes of such *actions* as decisions not to participate in the story, withdraw from it or decisions to act on it in particular ways or not to act in such ways.

Another outcome of this research is an understanding that organisational life can be meaningfully understood in terms of mutually enabling enactments of organisational culture and organisational order. In this interplay emergent patterns of culture and order act as sources of rationalities for each other. In a similar way they can act both as separate and combined sources of novelty and familiarisation in strategic story making. In the case of the *survival story*, both organisational culture and organisational order were enacted with elements of defamiliarisation, unusual and surprising ways of operating and thinking about the company, while credibility was enacted through references to the broader industry context of prevailing cultural beliefs and established orders. On the other hand in the story of the alliance and the beginning of the sell-out story it was organisational order that acted as a source of meaning to achieve credibility

while most novelty could be assigned to enactments within organisational culture.

Introduction of the concept of social innovation into the framework allows addressing issues of uncertainty and ambiguity about enactment of organisational future by resolving inconsistencies in patterns of culture and order through parallel re-enactments in both patterns. The crucial importance of innovation as argued here is in allowing substitution of one set of uncertainties about how and why a desirable future is attainable with other more tolerated ones. Innovation is not eliminating existing uncertainties nor does it create new ones out of nowhere. Its role is to allow strategists to substitute uncertainties which are becoming destructive for an organisation with a different set and thus securing time for necessary reorganisation and strategising. Post sell-out BioDetect was a great example of what could happen if the strategic story failed to address new uncertainties and accommodate new organisational orders within the confines of old organisational culture. With plenty of scientific novelty there was a lack of social innovation to justify commitment towards its further development. BioDetect was slowly turning from an innovative organisation into an organisation with innovative products and the outcomes of those transactions were not managed to the satisfaction of many stakeholders including Sheri, Calvin, employers and even Selex. New story makers were needed to take on the strategising and enactment of new BioDetect.

In this research it was identified on a number of occasions that higher uncertainty about organisational future allows for more loose enactments of the alternative interpretations of organisational future; interpretations that require less rationalisation and negotiation resources from formal strategists to acquire commitment of organisational member. This was especially evident throughout the processes of valuing the company when new interpretations of future were presented as very uncertain but surprisingly positive which allowed strategy makers to secure financial resources without excessive scrutiny

of their negotiating arguments.

As a result of the above mentioned conceptual choices and conceptual innovation the newly developed framework allows one to make sense of *why* certain organisational stories about organisational future (strategic stories) enjoy more support from organisational resources holders, while others struggle to effectively motivate and engage the organisation in a cohesive action with desired outcomes. The framework is not intended to provide answers to the question of *what* the successful strategy should be; it is not a prescriptive model. It allows identifying sources of new meanings and sources of legitimacy for strategic stories. It also allows practitioners and researchers of strategy to make sense of *how* and *why* a particular strategic story will or will not face resistance of its acceptance by organisational members.

In addition to the above mentioned contributions, this thesis draws together and successfully relates to each other in one conceptual framework a number of very influential and powerful concepts in the field of strategy process research such as culture, order, stracturation, innovation, uncertainty, strategic story, strategy practice, organisational context and environment. In doing so it answers a continuous call in academic papers for consolidation and need to position various researches and conceptualisations in relation to each other. On a methodological level this thesis presents a synthesis of conceptualisations which are rarely drawn together in one research study.

There are also a number of limitations of the current research. These are mainly context related limitations. The fact that BioDetect had only two formal strategists and top managers made it easier to apply a suggested conceptual framework and identify certain patterns. Due to high level of agreement between them there were hardly any analyses

of political power play within managerial groups. Further research would be necessary to evaluate the suitability of the suggested conceptual framework in contexts with multiple competing managerial groups. A very flat managerial structure made it very easy to draw a distinction between formal and non-formal strategists, which might be different in an organisation with a more elaborate managerial structure. There is also an aspect of assessing the importance of entrepreneurial behaviour in strategising as BioDetect top managers were also key shareholders and thus any conclusions regarding their interactions might be characteristic of their status.

Further research is needed to test the newly developed conceptual framework in other organisational contexts. Further analysis and theoretical development are desirable to make sense of how level of specificity as opposed to generality in a strategic story influences its effectiveness.

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Appendix 1

Brief background on some organisational members (all names are fictional):

Calvin -- Managing director of the company, early forties, background in biotechnology, has worked in the industry in various roles, was a consultant before started BioDetect with Sheri

Sheri – Technical director, mid thirties, friend of Calvin, background in biotechnology

Andy – Sales person, late twenties, early thirties, friend of Calvin and Sheri, initially combined the role of salesmen for BioDetect with other job in the industry, worked from out of office

Mike – Office manager, administrator, master of all trades, mid thirties, was the first non-science person to join the company, very actively involved in local politics (conservative)

Denis – Technical support manager, mid twenties

Andrew – Scientist, early thirties, one of the first scientists to join the company