



UNIVERSITY OF READING

**A complexity perspective on organisational change:
making sense of emerging patterns in self-organising systems**

A thesis submitted in partial fulfilment for the degree of
Doctor of Business Administration

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

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Abstract

This thesis adopts a complexity perspective to further understanding of organisational change and its leadership. It uses complexity to reframe organisational change as self-organising; a continuous process with emergent outcomes. Then it considers individual potency of reflexive agents within self-organising change, by asking what emerging organisational patterns change leaders notice, interpret and respond to as they pursue change in organisations.

That question is explored within a longitudinal, multi-level, largely qualitative, case study. The study focuses deeply on an organisation in the midst of change from the perspective of change leaders. Multiple data sources are used: in-depth interviews; observation; documents; a workshop; and a social networks/change leader survey. Within an inductive analytic strategy, the study employs a combination of analytic procedures to make sense of rich, eclectic, case data. It takes an interpretive epistemological stance, while retaining the realist ontological thread of a complex reality.

The research findings highlight the challenges facing change leaders trying to make sense of emerging patterns, in far-from-equilibrium conditions, when they too are ‘on the receiving end’ of change. The findings illustrate that change leaders notice and interpret emerging organisational patterns in particular spheres of human activity: patterns of events; ‘changing patterns of relations’; and ‘changing patterns of attention’. Multi-level triangulation highlights fractal self-similarity in the patterning of emergent responses across levels: responses of individual change leaders and organisational response patterns across a population of interdependent people can both be categorised in affective, cognitive and behavioural terms.

The major contributions of this study are (1) its identification of domains of emergent organisational change; and (2) its development of a multi-level typology of domains of emergent change. While organisational change outcomes are emergent and inherently unpredictable, these findings may help scholars and practitioners to theoretically anticipate and make sense of emerging organisational patterns.

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*This thesis is dedicated to my family -
their belief in me made it all possible*

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A complexity perspective on organisational change: making sense of emerging patterns in self-organising systems

Chapter 1: Introduction

*“The need for expertise in organization change has never been greater...
we who identify ourselves with the field of OD have unfinished business”*

(Burke, 2011: 143)

1.1 Overview

This research furthers understanding of change leadership in self-organising change and informs organisation development (OD) practice, by:

- (i) applying a complexity perspective to reframe organisational change as self-organising. This highlights that organisational change is a continuous process where planned/emergent change co-evolve.
- (ii) considering what we know about change leadership in self-organising change from the extant literature. This enhances understanding by bringing several streams of literature together in a new way.
- (iii) conducting an empirical exploration into an aspect of change leadership in self-organising change which we still know little about; the nature and effect of emerging organisational patterns from the perspective of change leaders as reflexive agents in processes of emergence. This offers insight into what changes in emergent change; often overlooked in the literature.

Complexity theory underpins this organisational change research. As section 1.6 outlines, complexity thinking informs the research philosophy. Further, self-organisation from complex adaptive systems (henceforth CAS) provides the focal theory used to reframe organisational change and the role of change leaders.

Chapter 1 puts my research in context and provides an overview of this doctoral thesis. It begins by considering why I am doing this research; outlining my motivations, then the theoretical and practical problems addressed. Next, it specifies what is being researched and how by explicating my research strategy. This includes briefly discussing complexity as a research paradigm to locate my research logic within wider traditions of philosophical thought; a form of social reflexivity

(Stacey and Griffin, 2005). It then offers a glimpse of the study findings and research contributions. The final section describes the development and structure of this thesis, providing a short summary of each chapter.

1.2 Motivations

As an OD practitioner, I am expected to enhance organisational effectiveness in various ways: perhaps facilitating post-merger cultural integration; developing leadership capability; or enhancing employee engagement. As well as making formal interventions, I have come to realise that all participation is an intervention. So, I am interested in better understanding processes of organisational change and development, and considering how to intervene appropriately.

I came across complexity science through the work of Morgan (1997), Wheatley (1999) and Stacey (2001) during my MSc in Organisational Development. What they said about complexity resonated strongly with my experience of organisational life as messy and unpredictable. It acknowledged the uncertainty and ambiguity that pervaded even the best planned change, the most expertly facilitated workshop. I felt that complexity, the science of uncertainty (Stacey, 2010), promised fresh new insights into how organisational learning and change really worked.

My MSc dissertation considered how complexity science ideas might inform learning practice in organisations. As this raised further questions, I continued my research with practitioners to discover how complexity thinking had affected their practice (Varney, 2007). Surprised at finding little in the complexity literature regarding implications for practice, I consulted Ralph Stacey, a pioneer in applying complexity theory to organisations (Goldstein, 2000: 6). That was the kind of topic being considered by doctoral researchers, he suggested; thereby sowing the seeds for my own doctoral journey.

My aim is to use complexity to better understand organisational change and the part that purposeful actors might play in it. That entails exploring the nexus between individuals and the organisational systems they work in. My ambitions for this doctoral enquiry are twofold. First, to understand what we can learn from complexity science to help ‘real people in real organisational contexts’ (an implicitly realist stance and a recurring refrain here), as they pursue organisational change. Second, to explore what we can learn from the experience of real people in real organisational settings to inform understanding of organisational change in complex human systems. As complexity scholars advise, that means using complexity science as a source domain for analogies between natural and human systems (Stacey, 2007) and studying social systems in their own right (Mitleton-Kelly, 2003).

1.3 Research problem

1.3.1 The theoretical problem

Kurt Lewin's planned approach to change (Lewin, 1947a) has dominated the literature and OD practice for many years (Burnes, 2005). Enduring definitions of OD (e.g. Beckhard, 1969), emphasise planned interventions to increase an organisation's effectiveness which draw on behavioural science knowledge. Yet the extremes of planned change, with their connotations of programmatic, formalised and top-down alteration of inertial organisations, seem out of step with a dynamic and volatile working world. Critics of planned change, who have been making their voices heard since the 1980s (Livne-Tarandach and Bartunek, 2009), tend to "*assemble under the banner of emergent change*" (Burnes, 2005: 75). Emergent change helpfully focuses attention on organisational dynamics, with the notion that organisational change is continuous (Weick and Quinn, 1999) and that it is ontologically prior to organisation (Tsoukas and Chia, 2002: 570).

Although planned change may be criticised for overstating the role of intentionality of human agents, casting them as "*prime movers*" (Weick and Quinn, 1999) in organisational change; emergent change may be criticised for overlooking it. While Burnes (2009b; Burnes and By, 2012) laments the lack of an ethical base to emergent change, I suggest it stems from a preoccupation with structural issues, rather than, as he intimates, ideological ones. Descriptions of "*ongoing accommodations, adaptations, and alterations that produce fundamental change without a priori intentions to do so*" (Weick, 2000: 237) foreground the system and serve to depersonalise the change process. We lose something of real human beings in such conceptualisations.

Paradoxically, therefore, while emergent change illustrates that all participation is intervention, it offers little to guide or evaluate that intervention. This is part of the "*unfinished business*" to which Burke (2011) refers when he argues that we need to know much more about working with continuous change in loosely coupled systems. We need to address this issue of "*practice theories of implementing change... lagging behind process theories of organizational change and development*" (Van De Ven and Sun, 2011: 58).

My proposal is that drawing upon complexity science may help us develop alternative theories to guide thoughtful intervention when organisational change is understood as continuous. As Chapter 3 elaborates, this study applies CAS's notion of self-organisation to move the planned/emergent debate on by re-framing organisational change as being paradoxically both planned and emergent. It therefore responds to calls for research which connects and considers the mutually-reinforcing relationship between planned and emergent organisational change (Livne-Tarandach and Bartunek, 2009; see also Eoyang, 2011). Importantly, such a reframing

posits a radically different role for change leaders, whose agency, as they pursue their agendas for change, is both enabled and constrained by emerging organisational patterns (Juarrero, 2000; 2011) and outcomes which may be *“transitory”* (Livne-Tarandach and Bartunek, 2009).

The term ‘change leader’ is used throughout in preference to ‘change agent’ to avoid confusion with agents in complexity theory. It denotes purposeful actors (often managers and consultants, sometimes employees or researchers) who actively pursue change in particular organisational contexts. This broader view of change leadership follows Van de Ven and Sun (2011: 58) in recognising that people from all these groups *“exercise agency or influence on the change process by their actions and reflections”*.

While this thesis argues that complexity brings clarity to the broad banner of emergent change, complexity’s systems focus also makes it easy to lose sight of real people working in real organisational contexts. Work on complex responsive processes (e.g. Stacey, 2001), complexity leadership (e.g. Lichtenstein and Plowman, 2009; Uhl-Bien and Marion, 2009) and reflexive emergence (Goldspink and Kay, 2010) helpfully refocus attention on human beings in processes of self-organisation. By drawing on that work and integrating threads on sensemaking and intentional behaviour, this thesis highlights what we currently know about change leadership in self-organising change from the extant literature. That exercise draws attention to the importance of the macro-to-micro feedback path in human systems; a potentially interesting aspect of change leadership in self-organising change which we still know little about. It also paves the way for an organisational study exploring the content, challenges and impact of change leader sensemaking of emerging organisational patterns during change.

1.3.2 The practical problem

There is also a practical impetus for this research. The context for change practice has itself become more complex and challenging; making the need for research which informs thoughtful intervention in self-organising change more pressing. That is why I agree with Burke’s (2011: 143) assertion that *“the need for expertise in organization change has never been greater”*.

In business and management, we have been so successful in ‘creating a sense of urgency’ (Kotter, 1995) about change, that the inevitability and desirability of organisational change and its management is rarely questioned (Sturdy and Grey, 2003). Although we may debate particular change strategies, I suggest that challenging the desirability of change has become *“undiscussable”* (Argyris, 1985) in many organisations. My own experience and conversations with other

practitioners reveal a proliferation of change initiatives in many organisations¹. We may experience multiple, overlapping, change programmes, which may themselves change. We may be unsure how (or if) they fit together, or where ownership for them lies. When change does not work, often the response is more change; creating bizarre situations described by one practitioner as “*re-org[anising]ing the re-orgs*”. Further, as I will illustrate in Chapter 7, change leaders are also change recipients; they are ‘in the midst’ of change. So those actively leading, shaping or supporting organisational change cannot stand apart from this milieu in order to make or give sense. Typically they are under great pressure to deliver, lest their own programmes become part of the oft-quoted 70% of organisational change initiatives said to fail (e.g. Burke, 2011).

My purpose here is not to take a stance against change, but to highlight the complex, practical challenges facing those pursuing change in organisations. Yet those turning to the academic literature for assistance may feel bewildered. They will discover that the literature on organisational change and development is fragmented along the lines of major dichotomies such as planned/emergent change (Burnes, 2004a); peppered with competing assumptions about the nature of organisational change and how to intervene (Palmer and Dunford, 2008). So, there are also good practical reasons for this research which seeks to inform thoughtful intervention when organisational change is understood as self-organising.

1.4 Research focus

The research problem is focused through three successive research questions.

Chapter 2’s review of the organisational change literature highlights important gaps in understanding emergent organisational change and the potency of change leaders within it. These gaps prompt the first research question:

1. What’s the relationship between planned and emergent organisational change?
 - a. What can be planned by change leaders?
 - b. What is emergent, why and how is it emergent?

Chapter 3 reviews the organisational literature on complexity to shed light on that research question. It posits a mutually-informing relationship between planned behaviour at an agent level and emergent, global patterning across organisations, in an ongoing process of self-organisation. That reframing prompts the second research question:

2. If organisational change is self-organising, what does that mean for change leaders?

¹ These observations draw on my own consulting practice and conversations with other practitioners at an Institute for Employment Studies workshop entitled ‘managing difficult change’ (19.04.2012)

Chapter 3 finds that the second research question is only *partially* addressed within the organisational complexity literature. One issue highlighted by this literature, which we know little about, is the macro-to-micro dynamic in self-organising change; i.e. the feedback loop between emerging global patterning and micro-level behaviour. That gap prompts the third research question and the exploratory case study used to enquire into it:

3. What emerging organisational patterns and ‘transitory outcomes’ do change leaders notice, interpret and respond to as they pursue change in organisations?
 - a. What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?
 - b. How do change leaders respond to emerging organisational patterns and transitory outcomes as they pursue change in organisations?

Although ‘what’ questions normally precede ‘why’ and ‘how’ questions (Blaikie, 2007), the empirical study builds from a theoretical platform which suggests how organisational change is self-organising, to focus on some ‘what’ questions from the perspective of change leaders within self-organising change.

1.5 Research strategy

The strategy selected for the empirical research is case study method because its holistic nature does not create artificial boundaries between social phenomena and their real-life context (Yin, 2009). Case studies provide a local, contextual, focus which suits a complexity research paradigm (Byrne, 2005). This research uses a single organisational case; typical of organisational change studies (e.g. Burnes, 2004a; Houchin and MacLean, 2005; Plowman et al., 2007a). Individual change leaders form embedded units of analysis, which facilitates a multi-level analysis. It uses multiple sources of data (interviews, observations, documentation, and a social networks/change leader survey) and applies multiple data analysis strategies to make sense of case data (narrative strategy; thematic network analysis; social networks analysis). This adoption of multiple perspectives suits complexity’s pluralistic epistemology (see 1.6). It utilises inductive logic to produce descriptions from case data and relate them to the research questions (Blaikie, 2007). Reporting follows ethnographic traditions of presenting first-order analyses, the story of the case, followed by a second-order theoretical analysis (van Maanen, 1979a).

Focusing deeply on a single case has enabled me to take a longitudinal approach, operationalised in two data collection phases 2009/10 and 2010/11, to study real-time organisational change. As the results chapters illustrate, this turned out to be an unexpectedly dynamic case, where a combination of events pushed the organisation to a far-from-equilibrium position. This posed

challenges for change leaders and offered the opportunity to focus on emerging patterns during the second research phase.

Within that research strategy, the relationship between myself as a researcher and the research participants is best characterised as an “*inside learner*” (Blaikie, 2007). That means that I am immersing myself in the social situation and using those personal experiences as a basis for understanding what is going on. It also means seeking to learn from the conceptualisations of research participants in order to address the research questions and build theory. In so doing, I am seeking a position of “*detached involvement*” (Stacey and Griffin, 2005) where I take my own experience of interaction with research participants seriously and reflect upon it. Taking an inside-learner stance is deliberate, designed to help me pick up weak signals, which are important in complex and uncertain sensemaking situations (Snowden, 2006; Klein et al., 2011). It is, however, a fairly moderate stance since it neither uses ethnography, nor action research, which might suggest stronger positions of ‘insider’ and ‘learner’ respectively. (Chapter 4 clarifies my relationship with the case study organisation).

Complexity takes a relational view of reality, suggesting that meaning does not reside either in research participants or the researcher, but emerges in “*the space between*” them (Bradbury and Lichtenstein, 2000); i.e. in their relationship. Therefore I am considering those researched as research participants, not research subjects, and positioning my research as something that is conducted with, rather than on, people. Two things follow from that. First, while the research agenda in this study is clearly mine, operationalised throughout within a case study strategy, the detailed design has been iterative and I have responded to opportunities highlighted by research participants for additional data collection (see Chapter 4). Second, although I have written this thesis with my own research goals in mind, I have shared intermediate, context-specific products of research with people from the case organisation to facilitate their learning as well as my own.

1.6 Research paradigm

My research strategy is informed by wider traditions of thought in social research which have started to recognise complexity theory as a research paradigm for the social sciences which presents a new realist scientific ontology (Blaikie, 2007; 2009). The philosophical commitments of the complexity research paradigm, and my interpretation of them, are briefly outlined below and elaborated in Chapter 4.

‘Complexity’ is variously used in the literature to abbreviate complexity science, complexity theory and complexity thinking. (Some writers capitalise these terms). Complexity science refers

to the broad, interdisciplinary study of complex systems (Maguire et al., 2011). Complexity theory (more accurately complexity theories, Mitleton-Kelly, 2003), is popularly used as a catch-all term to highlight important ideas from complexity science. However, since there are many versions of complexity theory (Morrison, 2010), this can obscure important differences between branches of complexity science (discussed in Chapter 3). Complexity thinking implies a way of thinking about the world which poses challenges to the philosophy of science (Richardson, 2005; 2008) and to dominant perspectives on organisations and management (Stacey et al., 2000; Stacey, 2007). Of course these terms are related; complexity science has developed complexity theories and thus new ways of thinking about both the natural and social world. In many instances, therefore, these terms can be used interchangeably (Maguire et al., 2006).

In this thesis I am adopting a complexity perspective in two ways. The first uses complexity thinking as a broad theoretical perspective (Crotty, 1998) or, as Blaikie (2007) terms it, a research paradigm with its own ontological and epistemological assumptions; briefly outlined here and elaborated in Chapter 4. The second draws on the complexity sciences, particularly CAS, to reframe the process of organisational change as self-organising. This reframing illustrates the continuous nature of change processes and highlights the co-evolving relationship between planned micro-level behaviour and emergent global patterning.

Complexity is seen as “*steering a course between*” (Blaikie, 2009) or providing a “*bridge*” which integrates (Boisot and McKelvey, 2010) modernism and postmodernism, and their respective social science research traditions of positivism and social constructionism. My research has a strong interpretive thread and emphasises the subjectivity and instrumentality of the observer; typical of social constructionism. Further, it accepts that social structure is socially constructed (through iterated interactions between people) and that understanding of it is socially mediated (we cannot stand outside our participation in it). However, it sees social structure as having some existence independently of our knowledge of it (a nod to positivism); thus it has “*causal efficacy*”, as critical realists say (Fleetwood, 2005), because it enables and constrains people’s behaviour.

Complexity suggests that knowledge is tentative. Since there are limits to what we can know about complex systems (Allen, 2001b), truth claims should be modest (Cilliers, 2005a); provisional (Richardson, 2008); local and contextual (Byrne, 2005). Their purpose is to facilitate anticipation, rather than prediction (Boisot and McKelvey, 2010). The epistemological goal is “*increased verisimilitude*” as more fallible interpretations are winnowed out (McKelvey, 2011: 119). Further, the dynamic nature of complexity means that general truths may evolve as they are particularised (Stacey and Griffin, 2005). In that vein, McKelvey (1997: 364) highlights Darwin’s notion of ‘laws in the background’ and ‘contingency in the details’ in order to accept both the

idiosyncratic nature of organisational phenomena as they are particularised and the value of retaining idealised generalised models of organisational behaviour.

Understanding knowledge as tentative distinguishes complexity thinking from extremes in the modernist tradition, where knowledge is seen as absolute, and from extreme post-modernism, where all knowledge is relative. While this view of knowledge as tentative chimes with critical realism (see Blaikie, 2007), complexity puts greater emphasis on the contingent, evolving nature of knowledge. It is also distinct from critical realism in that it does not consider stratified ontological distinctions between real, actual and empirical domains proposed by Bhaskar (1975).

1.7 Research lens

Since it forms the research lens, self-organisation, from CAS, is briefly outlined here (following Stacey, 2007: unless indicated) and elaborated in Chapter 3.

CAS are open systems (Cilliers, 2005a), with flexible boundaries formed by agent connectivity and interdependence (Mitleton-Kelly, 2003), which evolve at a macro (whole-system) level from the adaptive behaviour of interacting agents (Merali and Allen, 2011).

A complex adaptive system comprises multiple, heterogeneous, interdependent agents. Each agent interacts locally (i.e. with some of the other agents in the system) and is semi-autonomous (i.e. choices are enabled and constrained by the choices of others, and by emergent ‘norms’ which reflect the history of choices across a population). Thus the ‘rules’ of agent interaction are continually reproduced locally.

Crucially, system-level patterns of behaviour arise spontaneously from iterated processes of local interaction at a micro-level (i.e. among those multiple, heterogeneous, semi-autonomous, interdependent agents), which are enabled and constrained by locally-defined rules. It is through this process of **emergence** that CAS **self-organise** into global patterns of behaviour (order, or coherence). Such patterns may represent continuity or, through the amplification of micro-diversity, they may take novel forms.

1.8 Key findings

Analyses of case study data within a complexity-informed research paradigm reveal ten findings, offering insight into three key areas.

The first group of findings highlight the **challenges facing change leaders of sensemaking in self-organising systems**: in far-from-equilibrium conditions; when they, like change recipients, are ‘on the receiving end’ of change; and when their own noticing is ‘local’.

The second group reveals that **change leaders notice and interpret emerging organisational patterns in particular spheres of human activity** (defined as domains of emergent organisational change): patterns of attention; ‘changing patterns of relations’; and ‘changing patterns of attention’.

The third group considers the **patterning of emergent responses across levels**. They highlight that change leaders respond to emerging organisational patterns affectively, cognitively and behaviourally, and note fractal self-similarity with organisational response patterns across populations of interdependent people.

1.9 Contributions

Overall this thesis makes five contributions to knowledge about change leadership in self-organising change.

1. Chapter 2 reviews the literature to offer a **contemporary characterisation of emergent organisational change in its own right**; one which emphasises the centrality of human agency.
2. The **theoretical framework of self-organising change**, developed in Chapter 3, uses CAS to clarify the mutually-constituting relationship between planned and emergent change. It re-focuses attention on purposeful actors in that process by integrating literature on reflexive emergence in human systems (Goldspink and Kay, 2010), intentional behaviour (Ajzen, 1991; 2012) and sensemaking (Weick, 1995). The resulting framework is visually and theoretically distinct from n-step linear models of organisational change, many of which are based on Lewin’s seminal unfreeze-change-refreeze model (Hendry, 1996: 624).

3. The empirical case furthers understanding of what is changing in emergent change by **identifying domains of emergent organisational change**; patterns arising in particular spheres of human activity. These domains occupy a middle-ground between generic process descriptions and idiosyncratic outcomes. As they reflect socially-evolved patterns, where generalised tendencies to act are particularised in each instance (Stacey, 2007), domains of emergent organisational change may have transferability beyond the case.
4. The **multi-level typology of domains of emergent change**, which classifies individual responses and organisational response patterns across a population of interdependent people in affective, cognitive and behavioural terms, also furthers understanding of what is changing in emergent organisational change.
5. The empirical case also illustrates that **change leaders are “on the receiving end” of change** (Bartunek et al., 2006a). It confirms and extends the scope of findings from studies of sensemaking and affect in organisational change which differentiate between initiators/recipients of change.

This thesis also makes a contribution to practice. The framework of self-organising change provides a heuristic which has “*practical utility*” (Corley and Gioia, 2011) for change leaders; offering them a framework within which to explore and reframe their change role. Although macro-level change outcomes cannot be predicted, the domains of emergent organisational change and the associated typology may help practitioners to “*anticipate*” (Boisot and McKelvey, 2010) and make sense of emerging patterns in their own contexts.

Methodologically, it strengthens the case for multi-level triangulation in embedded case study designs. It illustrates how analytic patterns, which are more empirically evident and fully considered in the literature at one level of scale, may enhance understanding of patterns at another level. Here it applies established attitudinal categories from psychology (individual level) to enhance understanding of emerging patterns of responses across populations of people at an organisational level.

1.10 Thesis overview

1.10.1 Thesis structure

The following chapter summaries map the flow of this document and highlight where particular issues are discussed.

Chapter 1 provides an overview of the why, what and how of this research.

Chapter 2 frames the substantial literature on organisational change and development; introducing ideas pertinent to the development of the theoretical framework in Chapter 3 and the later discussion of empirical findings. It then draws attention to dilemmas in the literature, highlighting important debates around planned/emergent change and continuity/change, and argues that considering the relationship between apparent dichotomies might yield new insights about organisational change. Finally, it considers change leadership and its assumptions about the role of purposeful actors in organisational change. It concludes by considering how taking a complexity perspective might address problems identified in the organisational change literature.

Chapter 3 starts by framing the literature on complexity and outlining its main branches. It then introduces the CAS-informed perspective of self-organisation adopted within this research. Next, it takes a complexity view of change and its leadership before considering the challenge for change leaders of sensemaking in complex, evolving systems. The chapter concludes by bringing those threads together and presenting a theoretical framework of self-organising change. This highlights what we know about change leadership in self-organising change, brought together in a new way. It also provides a conceptual springboard for the empirical study, which explores an aspect of change leadership in self-organising change which, as yet, we know little about.

Chapter 4 outlines the research methodology for this study from research philosophy to operational methods. It elaborates my interpretation of the complexity research paradigm with its realist ontology and its pluralist epistemology, which embraces multiple perspectives. Next, it describes the longitudinal, qualitative, multi-level, embedded, single case study strategy. Then it details how the research was operationalised (in terms of case selection, two-phase data collection, the analytic strategies employed), and describes the emergent nature of its design. Chapter 4 also introduces the case organisation, referred to by the pseudonym Educase.

Chapter 5 presents the organisational level results and first-order analysis by relating the story of change at Educase. It highlights three domains of emergent organisational change at Educase: patterns of events; ‘changing patterns of relations’; and ‘changing patterns of attention’.

Chapter 6 takes a micro-level perspective to consider the embedded cases of four change leaders at Educase and conducts a cross-case analysis. It highlights affective, cognitive and behavioural responses of change leaders to emerging organisational patterns. It also considers how change leaders adapted to emerging organisational patterns.

Chapter 7 offers a second-order analysis of case data to address the empirical research questions. It draws attention to the sensemaking challenges facing change leaders ‘in the midst of change’. The three emerging organisational patterns outlined in Chapter 5, are then discussed in relation to the literature, and the notion of domains of emergent organisational change is clarified. Next it considers change leader responses to emerging patterns; then highlights the fractal self-similarity of individual/organisational responses to develop an initial typology for classifying domains of emergent change. Finally, it summarises research findings before highlighting the original contributions to knowledge, practice and method offered by this research.

Chapter 8 reflects on the research process. It evaluates strengths and limitations of the focal theory, methods used and not used; and discusses issues of breadth and depth. Next, it highlights potential avenues for further research. It concludes with reflections on my research journey and highlights key learning from the process.

1.10.2 Thesis development

Figure 1 illustrates the process by which the content for this thesis was developed, which differs from its final structure. The chronological start point was the rationale and approach [1] which informed the theoretical and empirical research. Next, the theoretical study began by reviewing literature to highlight a potentially interesting area for empirical enquiry [3]. The discussion and reflections [4] enfold insights from both theoretical and empirical work, which largely proceeded in parallel.

Figure 1: Thesis development

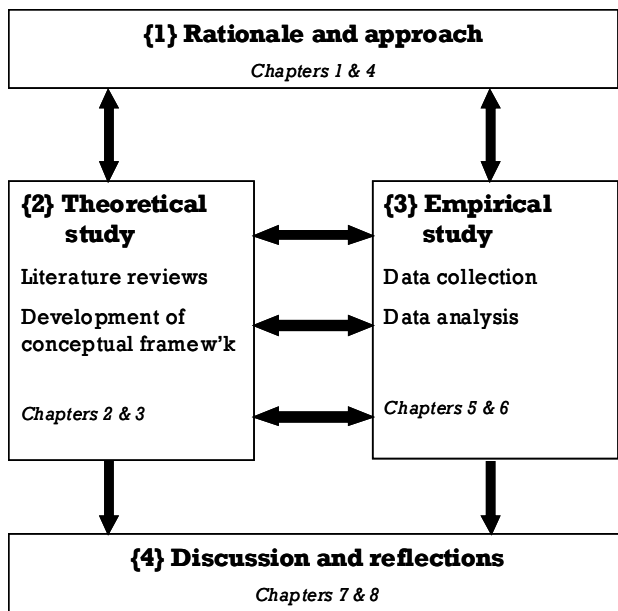


Figure 1's double-headed arrows indicate where elements were mutually informing. Thus the rationale and approach were refined as research progressed; particularly the research focus, whose boundaries became more precisely delineated by the research questions. There was a particularly strong relationship between [2] and [3]; as questions and insights from one stream informed ongoing research in the other. For example, the theoretical framework of self-organising change presented at the end of Chapter 3 existed in a more rudimentary form before the empirical case was conceived, but was refined in parallel with (although not directly as a result of) continuing to reflect deeply on the nature of self-organising change during the case. This iterative development, enabled by the 'cut and come again' disposition of case study research (noted by Easton, 2010: 124), helped me to develop my theoretical sensitivity (Glaser and Strauss, 1967) over the course of the study.

Theoretical sensitivity helps researchers to conceptualise empirical data and, more fundamentally, to apprehend it:

"The notion of theoretical sensitivity... rests on the premise that researchers cannot apprehend something unless they are equipped with a perceptual apparatus, including language terms, that allows them to discern and pay attention to it" (Locke, 2001: 89).

Indeed the main contributions of this research rest on a similar premise. To paraphrase Locke, equipping change leaders with the perceptual apparatus, including language terms about domains of emergent organisational change and their likely categories, may help them to apprehend emerging organisational patterns in their own contexts.

Chapter 2: Organisational Change and Development

“The challenge of effectively changing organizations is a ‘core issue’ of organizing that will never go away”

(Woodman, 2008: 36)

2.1 Overview

2.1.1 Positioning the literature review

This thesis explores two bodies of literature concerned with organisational dynamics. Chapter 2 reviews the organisational change and development literature (my research field). Chapter 3 then reviews the complexity literature (my research lens). This is no small task:

“Both the fields of complexity science and organizational change research are quite diverse, so a single, coherent view of either... presents a daunting challenge” (Eoyang, 2011: 320).

Responding to this challenge, each review chapter starts by framing the field. Each then explores how organisational change is understood and discusses the role of organisational actors in the process, selectively drawing from the leadership literature to consider agency in organisational change. Further strands of literature are also woven in. Chapter 2 references work on paradox as it considers important dichotomies in the organisational change literature. Chapter 3 discusses sensemaking in complexity leadership, and draws on psychology’s Theory of Planned Behavior (Ajzen, 1991) to consider change leader intentionality.

The literature review chapters have two objectives. (1) They elaborate the rationale for this research; locating the research problem more precisely within the literature and identifying gaps in current knowledge. (2) They illustrate the streams of literature covered in developing (a) the empirical research question, and (b) my theoretical sensitivity to conceptualising empirical data.

2.1.2 Chapter 2 overview

Section 2.2 frames the organisational change and development literature (abbreviated to ‘organisational change’) and contextualises the stance taken in my research. First, it considers the nature of the body of literature. Then it highlights that ontological distinctions about organisations (as things or processes), have a fundamental impact on how we understand

organisational change. Next, it considers key theories and models of organisational change processes and its management using established frameworks by Van de Ven and Poole (1995) and Burnes (2009a). It also frames organisational change by classifying its consequences or outcomes. Finally, it draws attention to the prevalence of dichotomies in the organisational change literature and advocates adopting a paradoxical perspective to enhance understanding.

Sections 2.3-2.5 then explore organisational change processes, outcomes and intervention in more detail. Section 2.3 considers organisational change processes using the planned/emergent change dichotomy: exploring how each is understood in the organisational change literature; then considering why and how the paradoxical relationship between them may be explored. A detailed literature review offers a contemporary characterisation of emergent organisational change in its own right. Section 2.4 considers the continuity/change dichotomy: clarifying how each is understood in the organisational change literature; highlighting the relationship between them; and proposing how that might be explored. Section 2.5 discusses change leadership; exploring how purposeful actors might intervene and considering their scope for choice.

The conclusion (2.6) draws together key arguments in this chapter, highlighting where CAS' self-organisation might address gaps and move on some long-standing debates in the organisational change literature.

2.2 Framing organisational change

2.2.1 Framing the literature

The scholarly literature on organisational change is substantial. In 1995, Van de Ven and Poole estimated over a million change and development articles. Bamford and Forrester (2003: 560) have since highlighted an *"explosion of publications on change management"*. It is still growing. Since 2010, EBSCO has listed a further 700 scholarly articles on organizational change each year².

This vast and growing literature is also diverse. Weick and Quinn (1999: 364) note the challenge of *"the sheer sprawl of the change literature"* and its resistance to fitting neatly into frameworks.

Woodman (2008: 35) emphasises that the *"change and development arena has always been characterized by a plethora of models, theories, approaches, perspectives and change techniques"*. Palmer and Dunford (2008: S20) suggest that; *"one of the greatest challenges facing organizational change researchers is the diversity of theoretical perspectives and prescriptive frameworks within the field"*.

² "ORGANIZATIONAL change" in subject terms, limited to Scholarly (Peer Reviewed) Journals published January-December 2010=686; 2011=726; 2012=717 (Search date: 14.01.13)

Despite its importance (as Woodman's quote introducing Chapter 2 suggests), *"the theory and practice of organizational change is neither a simple nor uncontested area"* (Burnes, 2004a: 890). Notions of managing and change are underpinned by varying ontological assumptions (Palmer and Dunford, 2008) and *"consensus about precisely what is known about organizational change will continue to be elusive"* (Schwarz and Huber, 2008: S3). 'Organisational change' is therefore a generic label, masking some fundamental differences, not a specific construct.

With its lack of integration and consensus, Caldwell (2005) observes that the field of change research is fragmented, offering competing discourses on agency in change. Some observe fragmentation within the research community itself. Bartunek (2007; 2008) highlights the divergence between academic and practitioner communities and their concerns. Schwarz and Huber (2008) distinguish between productivity-survival and workplace-quality paradigms in the pursuit of more effective organisations (the former underpinned by economics, the latter by OD and socio-technical systems); observing that many researchers operate within only one paradigm.

Faced with a substantial, diverse, contested and fragmented body of literature, there are three main approaches that a researcher can take. The first considers alternative perspectives as competing; a typical response is to take a *"partial approach"* (Clegg and Walsh, 2004), selecting from a number of perspectives and working firmly within that paradigm. The second accepts alternative perspectives as coexisting, even enriching the field (Woodman, 2008); with researchers *"borrow[ing] ideas and results"* from each other (Schwarz and Huber, 2008: S2). The third actively explores relationships between alternative perspectives to offer new insights (Livne-Tarandach and Bartunek, 2009). My research takes this third way (discussed at the end of section 2.2).

2.2.2 Understanding 'organisation'

A key distinction in the scholarly organisational change literature concerns the ontology of organisations as 'things' or processes (Tsoukas and Chia, 2002; Van de Ven and Poole, 2005). Whether we focus on organisations and change as nouns, or organising and changing as verbs is thought to be a fundamental, not a semantic issue. Some argue that organisations should be studied as nouns (e.g. Whetten, 2006; King et al., 2010). Others use verbs to highlight the processual nature of organising (e.g. Weick, 1979; Tsoukas and Chia, 2002).

'Organisational change' refers to both noun (the outcome) and verb (the process); adding weight to my earlier suggestion that organisational change is a generic label masking some fundamental differences. As a noun, organisational change can be defined as *"difference in form, quality, or state over time in an organizational entity"* (Van De Ven and Poole, 1995: 512). Thus *"change can be measured*

by observing the same entity over two or more points in time on a set of characteristics and then observing the differences over time in these characteristics. If the difference is noticeable, we can say that the organizational entity has changed” (Van De Ven and Sun, 2011: 60). Critics suggest that treating organisational change as a noun amounts to reification (Tsoukas and Chia, 2002), and that *“what really exists is not things made but things in the making”* (James, 1928: 263). As a verb, organisational change[ing] can be understood as enacted and situated practice; a process of improvisation, innovation and adjustment over time (Orlikowski, 1996); or *“the reweaving of actors’ webs of beliefs and habits of action as a result of new experiences obtained through interactions”* (Tsoukas and Chia, 2002: 570).

At the heart of this either/or ontological debate is whether we conceive change synoptically, in the abstract, or whether we perceive change performatively, through experience (Tsoukas and Chia, 2002). However, Stacey (2010) highlights a third way. He builds on Bourdieu’s (1998) work, which distinguishes between modes of experience and thought; to argue that both *immersion* and *abstraction* are necessary for understanding. Immersing in our particular experience emphasises the ongoing, micro-level, performative nature of organisational change. In contrast, abstracting (and thus generalising) from that experience is more likely to privilege macro-level, synoptic thinking about organisational change. Importantly, Stacey points out the relationship between the two; emphasising *“the paradoxical activity in which there is no meaning without abstraction and nothing for meaning to be about without immersion”* (p110).

My research actively explores connections between these alternative perspectives, following those who advocate pluralistic approaches to researching organisational change (e.g. Eisenhardt, 2000; Van de Ven and Poole, 2005). The theoretical framework developed in Chapter 3 applies CAS’ self-organisation to clarify and re-label the process of organisational changing (the verb). The empirical study then considers the patterning of organisational change (the noun) from the perspective of change leaders as participants in processes of self-organisation.

2.2.3 Change processes

Having highlighted the contested nature of the literature and argued that ‘organisational change’ is a generic label masking some fundamental differences, it is unsurprising that a theory of organisational change remains elusive. As Burke et al (2009: 65) observe: *“There is no single theory that comprehensively explains an organization, much less organization change”*.

Pettigrew et al (2001: 697) further challenge change theorists, advising that *“theories of change in the fields of management and organization studies must face the double hurdle of scholarly quality and practical relevance”*. Some suggest that the balance has tipped away from scholarly quality. Iles and

In the ‘prescribed’ mode of change in the above framework (evolution and life cycle), it is considered that the sequence of change events is prescribed *a priori* by deterministic or probabilistic laws, so that development of organisational entities is channelled in a pre-specified direction, in accordance with a pre-established programme or action routine (Van De Ven and Poole, 1995: 522). This notion of change being ‘prescribed’ is problematic from a CAS perspective, where macro-level change is understood to arise from micro-level interaction among interdependent agents in a process of self-organisation. As Chapter 3 elaborates, in this view, change only arises from what every agent is and is not doing (taking into account the precise history of that system); there is no pre-established programme channelling development, nor any immanent form to be realised.

In this framework, the ‘constructive’ mode is more relevant for considering the part of purposeful actors in organisational change:

Teleological theories assume that purpose or goals guide movement of an entity towards an end state; although equifinality highlights the possibility of multiple paths. *“Proponents of this theory view development as a repetitive sequence of goal formulation, implementation, evaluation, and modification of goals based on what was learned or intended by the entity”* (Van De Ven and Poole, 1995: 516). Since teleology emphasises purposeful action towards an envisioned end state, it underpins planned change approaches (discussed in section 2.3).

Dialectical theories position conflict or contradictions between two or more opposing forces, or interests, as generative mechanisms for change. In dialectical processes, power is a key factor, used to challenge a dominant thesis and replace it with an antithesis, or a synthesis (a novel construction). Although this theory relates to multiple entities, it can be applied to organisational change, since multiple entities may exist within an organisation. The dialectic mode is closest to emergent views of organisational change (discussed in section 2.3), since it allows for ‘bottom-up’ action.

Although similar to dialectical theories, self-organisation has some important differences. Most notably, the generating mechanism in self-organising change is better expressed as micro-diversity among agents, rather than conflict between opposing forces. CAS understands the origin of the antithesis, which Van de Ven and Poole suggest is obscure, as the multitude of antitheses that result from micro-level diversity of agents within complex dynamical systems (Allen, 2001a). Therefore (following Van de Ven and Poole in considering the interplay between different perspectives), even subtle differences in individuals’ interpretations of a desired end-state in teleological models of planned change, might produce a dialectic process of self-

organisation. Importantly, while resolving differences provides the dialectical energy for change, it may not be experienced as conflict. Indeed, human heterogeneity means that micro-level diversities are likely to be in play even when there is apparent goal consensus.

Van de Ven and Sun (2011) build on the typology by considering potential breakdowns and remedies in implementation. Table 1 presents their summary of dialectic change and compares it with self-organising change. As discussed, the main difference is the micro-diversity responsible for self-organisation. Therefore breakdowns in implementing self-organising change may result from a reduction of micro-diversity by way of groupthink (Janis, 1972); or from low connectivity and interdependence between agents within an organisational network (e.g. silos or network cliques), which offer few opportunities for differences to interact dialectically. Remedies include Large Group Interventions (LGIs), *“well known to practitioners but unfamiliar to many organizational researchers”* (Bartunek et al., 2011: 1), which extend reach and encourage connectivity between diverse groups with their ambition to *“get the whole system in the room”* (Weisbord, 1987; Bunker and Alban, 1992; Worley et al., 2011). Dialogic processes (Bohm, 1996; Isaacs, 1999), often used within LGIs, aim to engage participants in examining preconceptions and prejudices, and may assist in remedying groupthink. (The self-organising mode is developed further in Chapter 3).

Table 1: Extending the dialectic model

	Dialectic (Conflictive Change)	Self-organisation* (System Change)
Process cycle	Confrontation, conflict, synthesis between opposing interests	Confrontation, conflict, synthesis between diverse interests
Generating mechanisms	Conflict between opposing forces	Micro-level diversity
Source of change*	Power of challengers (p63)	Positive (amplifying) feedback
Source of continuity*	Power of incumbents (p63)	Negative (dampening) feedback
Typical breakdowns	<ul style="list-style-type: none"> ▪ Destructive conflict ▪ Power imbalance ▪ Irresolvable differences 	As dialectic, plus: <ul style="list-style-type: none"> ▪ Groupthink ▪ Silos/cliques
Remedies	<ul style="list-style-type: none"> ▪ Conflict management ▪ Negotiation skills ▪ Political savvy 	As dialectic, plus: <ul style="list-style-type: none"> ▪ Dialogue ▪ LGIs

Source: Van De Ven and Sun (2011: 61); *=added

2.2.4 Change management foundations

Burnes (2009a: 323) highlights *“three schools of thought that form the central planks on which change management theory stands”*: the Individual Perspective School; the Group Dynamics School; and the Open Systems school. Table 2 briefly summarises these three schools of thought; adding to Burnes by positioning LGIs as an extension of thinking (and practice) in group dynamics.

The table also summarises what is changed, from each school's perspective, and its implications for how organisations change. Within the Individual Perspective and Group Dynamics Schools, thinking about *what* changes (and how) is clear; it is individual and group behaviour. The implication is that organisational change is a simple accumulation of individual/group change. However what changes is less clear from an Open Systems perspective, begging the question "*in the final analysis, what is it that is being changed?*" (Burnes, 2009a: 328). Burnes tentatively suggests that it is individual and group behaviour, but this assumes that system behaviour is a simple product of its components. Table 2 challenges that idea and adds to Burnes by using CAS to clarify what changes (and how), and how such changes become organisational, from an Open Systems perspective.

In CAS, organisational change is an emergent, system-level phenomenon arising non-linearly across populations of interdependent people in organisations through iterated processes of local agent interaction (Stacey, 2007). What changes is not simply the behaviour of individuals or groups, but the rules of agent interaction; themes that organise complex responsive processes of relating (Stacey, 2001; 2007).

Although applying CAS clarifies what changes and how those changes become organisational, it begs further questions about the *nature of rules/themes of interaction* in human systems. This gap in understanding is explored in the empirical study. Chapter 5 highlights three domains of emergent organisational change and Chapter 7 suggests that what changes in organisational change are affective, cognitive and behavioural patterns across populations of interdependent people in organisations.

Table 2: Foundations of change management

School	Summary	What changes (and how)	*Source of organisational change
Individual Perspective	<p>Behaviourists – behaviour is learned; individuals are passive recipients of external data; to change behaviour, need to change conditions</p> <p>Gestalt-Field psychologists – behaviour also arises from individual interpretation; to change behaviour, need to understand selves and situation</p>	Individual behaviour (change results from external stimuli and/or internal reflection)	Organisational change arises from the cumulative effect of individual behaviour changes
Group Dynamics	<p>Lewinian – group behaviour modifies individual behaviour; focus of change is group norms, roles, values; approach is participative.</p> <p>*LGIs – aim to ‘get the whole system in the room’, ensuring all relevant groups are included</p>	Group behaviour (individual behaviour is socially modified by group participation)	<p>Organisational change arises from the cumulative effect of behaviour change of groups</p> <p>*In LGI logic, the group is the whole organisation</p>
Open Systems	Concerned with understanding organisations in their entirety (holistic perspective); recognises interactions/interdependence between sub-systems and with external environment	*Rules of agent interaction/themes organising processes of relating (through iterated processes of local agent interaction)	*Organisational change arises across populations of people in organisations though their connectivity and interdependence

Note: Despite LGIs’ systemic language, their focus on group participation locates them within the Group Dynamics School
Source: Summarised from Burnes (2009a); *=added

2.2.5 Change outcomes

Organisational change may also be framed by classifying its consequences or outcomes. First-order change is change within an existing framework (Watzlawick et al., 1974) or worldview (Levy, 1986); similar to single-loop learning (Argyris, 1977) and Bateson's (1972/2000) Learning I. This connection between change and learning has been noted before (e.g. Hendry, 1996; Burnes, 2009a). Indeed "*change is a learning process and learning is a change process*" (Beckhard and Pritchard, 1992: 14).

Second-order change (Watzlawick et al., 1974), double-loop learning (Argyris, 1977) and Learning II (Bateson, 1972/2000) involve change to the governing framework. Second-order change is paradigmatic change (Levy, 1986; Tsoukas and Papoulias, 2005). Some extend notions of second-order change to highlight a third-order of organisational change (Bartunek and Moch, 1987); change in the way governing frameworks are constructed. This may arise from OD interventions supporting organisational actors to transcend shared organisational schemata (Bartunek and Moch, 1987; 1994); or through shifts in beliefs and practices, a more politicised and symbolic process, which changes the institutional context (Tsoukas and Papoulias, 2005). The latter echoes Bateson's Learning III (1972/2000) and triple-loop learning (Nielsen, 1993). Differing terms (alpha, beta and gamma change) are sometimes used in OD (e.g. Golembiewski et al., 1976; Porras and Silvers, 1991). For reference, Appendix A categorises the above definitions in first, second and third-order terms.

Meyer et al (1995) concluded that the first-order change paradigm underpinned most organisation theory and research, due to researchers' assumptions and tacit theories of change. They held that first-order change assumes quasi-stationary equilibrium, incremental change and continuous progression; while second-order change assumes punctuated equilibrium, quantum change and episodic bursts. Lyddon (1990: 122) also noted that researchers' philosophical assumptions influenced their approach; suggesting that "*rationalist approaches are guided by first-order assumptions about change whereas constructivist approaches are based on second-order principles and processes*". Van de Ven and Poole (1995) suggest that "*prescribed*" modes of development, inherent in life-cycle and evolutionary theories, tends to result in first-order change; whereas "*constructive*" modes, inherent in dialectical and teleological theories, tend to result in second-order change outcomes.

Crawford and Williams (2005: 421) discuss embedding a risk management culture within local authorities; observing "*front-line staff become involved where a concept has meaning for them, even in the absence of policies implemented from the top of the organisation*" (ibid. 421). This fits Bartunek and Moch's (1987) definition of second-order change as modification of organisational schemata in a

particular direction. Tsoukas and Papoulias (2005: 83) found third-order change in a Greek state-owned utility company, which, they suggest, transforms the identity of the organisation and changes its institutional context. Walsh's (2004) analysis of embedded culture and enacted structure in a multinational office staffed by Japanese and Americans found that cultures and structures were simultaneously created through single-, double- and triple-loop learning. She concludes that this represents third-order change. Table 3 summarises these contributions.

Table 3: What changes in organisational change?

Order	What changes	Examples
First	Components within an existing framework	Reinforcement of shared schemata (Bartunek and Moch, 1987); extent of existing variables (Porras and Silvers, 1991); actions (Nielsen, 1993); policies/strategies (Tsoukas and Papoulias, 2005)
Second	The framework itself	Perspective/frame of reference (Golembiewski et al., 1976); worldview (Levy, 1986); modification of shared schemata (Bartunek and Moch, 1987); nature of governing variables (Tsoukas and Papoulias, 2005); (risk management) culture (Crawford and William, 2005)
Third	The way that framework is constructed	Ability to change shared schemata (Bartunek and Moch, 1987); social tradition system (Nielsen, 1993); enacted structure, embedded culture (Walsh, 2004); organisational identity, institutional context (Tsoukas and Papoulias, 2005)

In CAS, emergent, self-organised phase transitions (where the system changes) exemplify second-order change. As Chapter 3 elaborates, the framework itself changes, not just the components within it, which is why the resulting emergent structures cannot be reduced to their components. In human systems, phase transition requires second-order *modification* of shared schemata (Bartunek and Moch, 1987) in terms of the themes/rules of agent interaction, not just first-order *reinforcement* of shared schemata (ibid.).

2.2.6 Dichotomies and paradox

The organisational change literature is characterised by a dichotomist view resulting in “a cluttered jumble of change models” which do not tend to promote general understanding (Maes and Van Hootegeem, 2011: 191). Their literature review highlights 16 attributes of change across eight dimensions (see Table 4). Further, Van de Ven and Poole (1995) differentiate between prescribed and constructive change. Nasim and Sushil (2011) also highlight dominant dilemmas in the literature: namely planned/emergent; static/dynamic models; incremental/revolutionary; piecemeal/holistic approach; macro/micro perspective.

Table 4: Attributes of change

Dimension	Attributes	
1. Control	emergent	planned
2. Scope	adaptation	transformation
3. Frequency	continuous	discontinuous
4. Stride	incremental	revolutionary
5. Time	long	short
6. Tempo	slow	quick
7. Goal	open	strict
8. Style	participative	coercive
9. Mode	constructive	prescribed
10. Model	dynamic	static
11. Approach	holistic	piecemeal
12. Perspective	macro	micro

Source: 1-8 (Maes and Van Hootegem, 2011); 9 (Van De Ven and Poole, 1995); 10-12 (Nasim and Sushil, 2011)

Pettigrew (2000: 245) notes *“a long tradition in the social sciences and in management and organization theory of using bipolar modes of thinking”*, suggesting that, while they are *“powerful simplifiers and attention directors”*, they may *“conceal as much as they reveal”* since they direct attention away from mutualities and complementarities. More recently, however, Nasim and Sushil (2011) note a shift in the organisational change literature, away from trade-offs, towards paradoxical thinking. Rather than seeking to ‘resolve’ contradictions, paradoxical thinking accepts *“contradictory yet interrelated elements that exist simultaneously and persist over time”* (Smith and Lewis, 2011: 382).

Scholars embracing paradox highlight that dynamic energy flows for learning and change may emerge when working with opposing tensions. For example, Pedler et al (1991) propose an ‘energy flow’ model of a learning company; suggesting that four key activities, along two sets of polarities, need to be balanced and interacting. Burgoyne (1994: 5) explains that the energy flows when *“no one pair [is] dominating or atrophied”*. McKenzie (1996: 54) conceptualises opposing tensions between five recurrent business dilemmas as a wheel; suggesting that dynamic energy flows are created as *“complementary opposites”* interact. When each pair is in balance, that energy turns the metaphorical wheel, representing continuous strategic learning and change. Similarly, Smith and Lewis (2011) use the metaphor of dynamic equilibrium, assuming constant motion across opposing forces, in creating their paradoxical model of organising; proposing that responses to paradox, over time, enable sustainable performance. Antonacopoulou and Chiva (2007) argue that ongoing negotiations between opposing forces create a dynamic for organisational learning. Van de Ven and Poole (1995) theorise that dialectical tension can be a powerful change motor. Cunha and Cunha (2003) observe this in practice, suggesting that paradoxical needs to preserve the communist ideology in Cuba, while bringing in elements of market logic, may work as a change motor.

Organisational change researchers are encouraged to embrace paradox. Eisenhardt (2000: 703) highlights its centrality in articles on change; advising against seeking compromise and recommending “*exploring the tension in a creative way that captures both extremes, thereby capitalizing on the inherent pluralism within the duality*”. Clegg et al (2002) propose having “*a positive regard for the co-presence of opposites*” and taking the potential relationship between them seriously. Livne-Tarandach and Bartunek (2009: 2) argue that exploring connections within dichotomies “*may lead to a more complete picture of organizational change*”. Mitleton-Kelly (2004) highlights the importance of holding tensions and dilemmas, rather than trying to resolve them, to gain perspective on problems in complex evolving systems. After all, “*there is a relationship between the two poles of most contradictions in management and organizations*” (Clegg et al., 2002: 492).

Change practitioners are also encouraged to embrace paradox. Clegg et al (2002) suggest that organisations typically fall into “*simplicity traps*”, where choices are made and alternatives disregarded, until changing contextual conditions render existing routines ineffective in addressing organisational challenges. Palmer and Dunford (2008) advocate swapping between alternative ‘images’ of change management, while Van de Ven and Sun (2011) propose revising mental models of change may remedy breakdowns in implementing organisational change.

This thesis views paradox as inherent in organisational change. Sections 2.3/2.4 argue that two major dichotomies in the literature (planned/emergent change, continuity/change) are more helpfully understood as paradoxical perspectives using CAS’ self-organisation as a ‘connection frame’ (Livne-Tarandach and Bartunek, 2009).

2.3 Planned and emergent change

2.3.1 Planned change

The duality between planned and emergent change is an essential distinction in the literature (Bouckennooghe, 2010; Maes and Van Hootegeem, 2011). Many scholars consider them the two dominant approaches to change (Burnes, 2005; Bamford, 2006).

Planned change is a formal procedure, actively managed by managers or consultants, that moves an organisation from one state to another through pre-planned steps (Livne-Tarandach and Bartunek, 2009). Episodic change (Weick and Quinn, 1999) is often considered planned; indeed Weick (2000) talks about planned, episodic change. Episodic change is “*infrequent, discontinuous, and intentional*” and “*occur[s] in distinct periods*” (Weick and Quinn, 1999: 365). It is often “*slower*

because of its wide scope, less complete because it is seldom fully implemented, more strategic in its content, more deliberate and formal than emergent change” (p368).

An underlying assumption of planned change is quasi-stationary equilibrium (Lewin, 1947/2009: 74); *“a state comparable to that of a river that flows with a given velocity in a given direction during a certain interval of time. A social change is comparable to a change in the velocity or direction of that river”*. Weick and Quinn call this inertia, borrowing Pfeffer’s definition of an *“inability for organizations to change as rapidly as their environment”* (Pfeffer, 1997; cited in Weick and Quinn, 1999: 369).

Lewin’s three steps ‘unfreeze-change-refreeze’ underpin many approaches to planned change. Hendry (1996: 624) asserts that: *“Scratch any account of creating and managing change and the idea that change is a three-stage process which necessarily begins with a process of un-freezing will not be far below the surface. Indeed it has been said that the whole theory of change is reducible to this one idea of Kurt Lewin’s”*. However Burnes (2004b) highlights that Lewin’s Three-Step model should be understood alongside field theory, group dynamics and action research, as one of four elements of his planned approach to change.

Intervention theories in planned change are considered Lewinian, led by a *“prime mover who creates change”* (Weick and Quinn, 1999: 366). Chin and Benne (1967/2009: 89) conceive planned changes as those in which *“attempts to bring about change are conscious, deliberate, and intended, at least on the part of one or more agents related to the change attempt”*. Beer and Nohria’s (2000b) Theory E of economic change highlights top-down management of change and consultants shaping solutions. Burnes (2004a) likens this to Kanter et al’s (1992) *“bold strokes”* for rapid overall change. Van de Ven and Poole’s (1995) teleological process theory provides a model of planned change; where development is understood as *“a repetitive sequence of goal formulation, implementation, evaluation, and modification of an envisioned end state based on what was learned or intended by the people involved”* (Van De Ven and Sun, 2011: 61).

Kurt Lewin’s and OD’s planned approach to change has dominated the literature (Burnes, 2005) and change management practice (Livne-Tarandach and Bartunek, 2009; Burnes and Cooke, 2012). Indeed, *“for many years organizational development was synonymous with organizational change”* (Palmer and Dunford, 2008: S27). OD emphasises planned change efforts drawing upon behavioural science knowledge (French and Bell, 1999). Burke (1994) describes OD as *“a planned process of change in an organization’s culture through the utilization of behavioral science technologies, research and theory”*. Lewin’s strongly-humanitarian principles (Burnes, 2004b) underpin OD, which is distinctive in its focus on democratic principles of participation. However *“participation is typically expected to occur within the framework of the designed change”* (Livne-Tarandach and Bartunek, 2009: 4).

OD has been criticised for being unrepresentative of how change occurs in organisations. Dunphy and Stace (1993) found more organisations using directive styles to bring about rapid, transformative change, than OD's incremental, participative approach.

Planned change began to attract critics in the 1980s (Burnes, 2004b; 2005; Livne-Tarandach and Bartunek, 2009). Burnes highlights the practical difficulties expressed by those who considered it too slow and inflexible (e.g. Peters and Waterman, 1988), that it focused too little on power (e.g. Pfeffer, 1993) and on the change process (e.g. Whipp and Pettigrew, 1992). Kotter (1995) suggested it was a leadership problem, drawing on research of failed transformation efforts to propose an approach to large-scale, programmatic change with his Eight-steps model. Echoing Lewin's Three-Steps, Kotter's (1996: 22) first four steps "*help defrost a hardened status quo*", steps five to seven are about making the change, while step eight "*grounds the change in the corporate culture and helps make them stick*". Bass and Avolio (1994) also connect leadership and change, calling for transformational leadership to improve organisational effectiveness.

2.3.2 Emergent change

Planned change has a long heritage (since the 1940s) and, although the emergent approach has dominated the field for the past two decades (Burnes, 2009b), it lacks that formal history (Bamford, 2006). Emergent change is a headline banner for critics of planned change (Weick, 2000; Burnes, 2005); uniting a disparate range of approaches in their scepticism (Livne-Tarandach and Bartunek, 2009).

Beer et al (1990) suggest that effective corporate renewal starts at the bottom through informal efforts to solve business problems. For some, it is "*an emphasis on 'bottom-up' action, rather than 'top-down' control in starting organizational change [which] is a major development of emergent change*" (Bamford, 2006: 183, emphasis in original). In an empirical study, Bamford (2006) distinguishes between planned change programmes, initiated by the Board of Directors, and emergent change programmes, initiated elsewhere e.g. by customers, competitors, middle managers, or consultants. This widens the notion of 'bottom-up' to include those outside the organisation.

Beer et al (1990) also suggest that successful change efforts focus on changing the actual work in order to force behaviour change, with any changes in knowledge and attitudes coming later. Pascale et al (2000: 14) echo this action-led view, observing that; "*adults are much more likely to act their way into a new way of thinking than to think their way into a new way of acting*". Weick too echoes this sentiment, linking sensemaking with emergent change to suggest that; "*people need to act in*

order to discover what they face, and they need to talk in order to discover what is on their mind" (Weick, 2000: 232).

While bottom-up and action-led views of emergent change resonate with Weick and Quinn's (1999: 366) notion that change is continuous, "*a pattern of endless modifications in work processes and social practice*" at the micro-level; continuous change forms a distinct branch in the literature. Brown and Eisenhardt (1997) propose that, rather than evolving by way of punctuated equilibrium models (Gersick, 1991; Romanelli and Tushman, 1994), organisations engage in continuous change; with successful organisations experimenting and creating "*semisttructures*", which provide "*links in time*", choreographing transitions in "*sequenced steps*". Weick and Quinn regard continuous change as "*constant, evolving and cumulative... without an end state*" (p366). Van de Ven and Sun (2011: 58) argue that "*change is an ongoing and never-ending process of organizational life*". Tsoukas and Chia (2002) go further, arguing that change is ontologically prior to organisation. Orlikowski's (2001) situated change perspective considers micro-level patterns of interaction embedded in everyday work; with change understood as 'improvisation' as organisational actors make sense of and act in the world. In that vein, Feldman (2000; Feldman and Pentland, 2003) highlights that organisational routines are a source of flexibility and continuous change. The idea of change being continuous is also embedded in concepts of the learning organisation (Senge, 1990a; Pedler et al., 1991) which emphasise increased adaptability and generative learning.

While planned approaches to change are underpinned by notions of a prime mover, writers on emergent change diverge on this issue. Similar to OD, some see a role for top managers in encouraging participation from the bottom-up e.g. Beer and Nohria's Theory O on organisational capacity building (2000b) and Kanter et al's (1992) "*long marches*", a longer-term, incremental approach to transformation. Senge (1990b) positions the creation of learning organisations as the leader's new work, which Weick (2000: 238) suggests is about "*certifying*" emergent change in the sensemaking tradition; "*the job of management is to author interpretations and labels that capture the patterns in those adaptive choices*". That certification of emergent ideas is observed in empirical studies (e.g. Bamford, 2006; Wallace and Schneller, 2008). Rather than being the province of top managers or nominated change agents, Kanter (1999) observes that change is everyone's job; capturing something of the distributed nature of action in emergent change. In that vein, By (2007: 9) advocates that conscious efforts focus on "*facilitating continuous change readiness rather than on implementing and managing specific change efforts*".

Planned change is seen as an intentional activity, even though its consequences may not be (e.g. Harris and Ogbonna, 2002; Balogun and Johnson, 2005; Jian, 2007). However, this is not the case with many accounts of emergent change. For example, Plowman et al (2007a) highlight how

radical change happened ‘accidentally’ at Mission Church. Orlikowski (1996: 65) positions situated change as “*a new pattern of organizing in the absence of explicit a priori intentions*”. Weick (2000: 237) too argues that emergent change “*produce[s] fundamental change without a priori intentions to do so*”. This is echoed in the strategy-as-practice literature, with Mintzberg’s (1987: 69) proposal that emergent strategies are those “*that appear without clear intentions – or in spite of them*”. Purposeful actors simply disappear from many accounts of emergent change:

“The recurring story is one of autonomous initiatives that bubble up internally; continuous emergent change; steady learning from both failure and success; strategy implementation that is replaced by strategy making; the appearance of innovations that are unplanned, unforeseen and unexpected; and small actions that have surprisingly large consequences” (Weick, 2000: 225).

Caldwell (2005: 106) asserts that their “*greatest weakness*” is that contextual views of emergent change never developed a theory of agency in organisational change; concluding that “*the full implications of ‘leading change’ as a distributed or dispersed process have yet to fully explored*”. This issue of change leadership in emergent change is picked up in section 2.5 and in Chapter 3.

Emergent organisational change is typically juxtaposed with planned change; often described in terms that highlight it is not planned change (e.g. bottom-up, rather than top-down). Yet, just as metaphors create both “*ways of seeing... [and] ways of not seeing*” (Morgan, 1997: 348); using planned change as a lens may fail to fully illuminate the nature of emergent organisational change. Therefore, to consolidate contemporary understanding of emergent organisational change since Weick’s (2000) influential work, I conducted a literature search on emergent change³. Despite claims that emergent approaches dominate the field (Burnes, 2009b), only 17 articles (six conceptual, 11 empirical) were explicitly concerned with emergent organisational change. Their theoretical and empirical conceptualisations of emergent organisational change are summarised in Table 5 on the next four pages.

³ The literature search (conducted 02.08.11, repeated 19.09.12) highlighted peer-reviewed journal articles published after 2000 with the term “emergent change” in the title, or abstract, or keywords on EBSCO Business Source Complete, ProQuest [title, abstract only] and SAGE Journals. Abstracts were analysed and those that did not relate to organisational change were excluded.

Table 5: Conceptualisations of emergent organisational change

	Summary	Examples
1. Sources	Emergent change arises from the ongoing day-to-day actions and responses of multiple, diverse, decentralised, embedded actors	<p>Ongoing day-to-day actions/responses</p> <ul style="list-style-type: none"> ▪ Emerges from day-to-day actions/decisions of organisational members (Page et al., 2008) ▪ Local, decentralised change (Wallace and Schneller, 2008) ▪ Re-accomplishing routines, dealing with contingencies/breakdowns/opportunities in everyday work (Burnes, 2004a) ▪ Problem-driven, derived from local needs/contingencies (Cunha and Cunha, 2003) ▪ ‘Micro motives’ emerge unexpectedly, forcing companies to respond (ibid.) ▪ Need for change may be unnoticed at institutional level (ibid.) ▪ Accommodations to social pressures (ibid.) ▪ Small, recurrent, variations in practice over time (Kickert, 2010) ▪ Autonomous local initiatives appear unplanned/unforeseen/unexpected (ibid.) ▪ Accumulation of decentralised grass roots reforms (ibid.) ▪ Reactions to internal/external influences (Bamford and Forrester, 2003) ▪ Remedial; reaction to perceived exogenous changes by system’s agents (Blomme, 2012) ▪ Driven by ‘equivocality’ (ibid.) ▪ New approaches/behaviours/experiments triggered by events (Higgs and Rowland, 2005) ▪ Stimulated by local concrete challenges/problems/stimuli/anxiety/chaos/disorder (Young, 2009) <p>Multiple, diverse, decentralised, embedded actors</p> <ul style="list-style-type: none"> ▪ Initiated bottom-up (Bamford and Forrester, 2003; Cunha and Cunha, 2003; Bamford, 2006; Biedenbach and Söderholm, 2008) ▪ Market induced (Biedenbach and Söderholm, 2008) ▪ Prompted by customers, middle managers, consultants (Bamford, 2006) ▪ ‘Middle-out’ change (not top-down/bottom-up), driven by cross-functional relationships (Bamford and Forrester, 2003) ▪ Emerges from interaction of participants (Blomme, 2012) ▪ Multiple actors with multiple rationales/interests/positions/strategies/resources (Kickert, 2010)

	Summary	Examples
2. Outcomes	Various emergent outcome patterns can be discerned and described in broad terms, but are not pre-scribed. Outcomes are dynamic and small changes may accumulate into more widespread patterns	<p>Various outcome patterns discerned/described</p> <ul style="list-style-type: none"> ▪ Local concrete changes generalised into broadly held concepts (Young, 2009) ▪ Patterns emerge (Higgs and Rowland, 2005) ▪ Informant descriptions of emergent change intuitive, not theoretical (ibid.) ▪ New logics/structure/order unfold (Blomme, 2012) ▪ (Re)aligns organisation to changing environment (Bamford and Forrester, 2003; Burnes, 2009b) ▪ Results in growth/shared meaning/best solutions to problems (Young, 2009) ▪ ‘New normal’ processes; thinking together in learning/sensemaking/generative organisations (ibid.) ▪ Programme spin-outs, projects not linked to plan (Esain et al., 2008) ▪ Changes in perceptions/new organisational meaning (Bamford and Forrester, 2003) ▪ Re-shaped managerial behaviour/culture/improved performance (Burnes, 2004a) ▪ Nature of relationships change, leading to power shifts (Blomme, 2012) ▪ New group structures formed, separate from formal department structures (ibid.) ▪ New questions of social identification linked to emotion/new cognitions (ibid.) ▪ Exposes/empowers new relationships in messy way (Esain et al., 2008) ▪ New pattern of social organisation without a priori intentions (Cunha and Cunha, 2003) <p>Outcomes are not pre-scribed</p> <ul style="list-style-type: none"> ▪ Outcomes unpredictable (Higgs and Rowland, 2005; Burnes and By, 2012; Blomme, 2012) ▪ Changes may be uncoordinated, even counterproductive (Biedenbach and Söderholm, 2008) <p>Outcomes are dynamic; small changes may accumulate</p> <ul style="list-style-type: none"> ▪ Emergence not static property, but a perceived moment in time (Blomme, 2012) ▪ Outcomes often small, strategic change builds incrementally (Biedenbach and Söderholm, 2008) ▪ Outcomes incremental, passing through small steps (Blomme, 2012); cumulative (Burnes and By, 2012) ▪ Outcomes ‘modest’ – representing ‘a confluence of interests’ (Wallace and Schneller, 2008) ▪ Diffuse, unlikely to deliver rapid/radical transformation (Biedenbach and Söderholm, 2008) ▪ Spread of local practices representing emergent solutions to diverse local problems became conceived as single overarching ‘hospitalist movement’ (Wallace and Schneller, 2008) ▪ Accumulation of grass roots reforms added up to civil service-wide reform (Kickert, 2010) ▪ Small-scale change over time → major transformation (Bamford and Forrester, 2003; Bamford, 2006) ▪ Small-scale, decentralised changes improve performance/change behaviour (Burnes, 2004a)

	Summary	Examples
3. Process characteristics	Emergent change is a largely informal, ongoing, dynamic process. It is a complex, locally-responsive activity which is accomplished through people.	<p>Informal</p> <ul style="list-style-type: none"> ▪ Unplanned/no <i>a priori</i> priorities/intentions (Burnes, 2004a; Esain et al., 2008; Blomme, 2012) ▪ Unpredictable/non-linear (Cunha and Cunha, 2003; Burnes, 2004a; Biedenbach and Söderholm, 2008; Kickert, 2010; van der Heijden et al., 2012; Burnes, 2009b) ▪ Uncontrolled/uncontrollable (Burnes and By, 2012) ▪ May go unnoticed (Cunha and Cunha, 2003; Burnes, 2004a); within informal system (Cunha and Cunha, 2003) <p>Ongoing, dynamic</p> <ul style="list-style-type: none"> ▪ Real-time (Burnes and By, 2012) ▪ Long-term (Burnes, 2009b) ▪ Continuous/open-ended (Bamford and Forrester, 2003; Burnes, 2004a; Bamford, 2006; Biedenbach and Söderholm, 2008; Burnes, 2009b; Kickert, 2010; Burnes and By, 2012) ▪ Evolving (Bamford and Forrester, 2003; Burnes, 2004a; Biedenbach and Söderholm, 2008) <p>Complex</p> <ul style="list-style-type: none"> ▪ A messy activity (Higgs and Rowland, 2005) ▪ Inductive, co-evolutionary (Young, 2009) ▪ Complex/adaptive (Higgs and Rowland, 2005), especially as it spreads (Wallace and Schneller, 2008) ▪ Complex intertwining of different types of change/causes/motives/life-cycles (Kickert, 2010) ▪ Interplay of multiple variables over time (Bamford and Forrester, 2003; Bamford, 2006) ▪ Slow-paced/so fast planned change becomes obsolete (Biedenbach and Söderholm, 2008) <p>Locally responsive</p> <ul style="list-style-type: none"> ▪ Continuous process of accommodation/adaptation/(micro)experimentation/opportunistic behaviours (Cunha and Cunha, 2003; Burnes, 2004a; Bamford, 2006) ▪ Sensitive to local contingencies, short feedback loops (Biedenbach and Söderholm, 2008) ▪ Reactive (Biedenbach and Söderholm, 2008)/remedial (Blomme, 2012) ▪ Consists of small steps (van der Heijden et al., 2012) <p>Accomplished through people</p> <ul style="list-style-type: none"> ▪ Political (Burnes, 2004a; Burnes, 2009b; Burnes and By, 2012) ▪ Holistic/contextual (Burnes, 2009b; Young, 2009) ▪ Relationship-based; conducted through conversation/action (Higgs and Rowland, 2005; Young, 2009) ▪ Process of sensemaking/organisational learning (Bamford and Forrester, 2003; Young, 2009)

	Summary	Examples
4. Relationship with planned change	In practice, planned and emergent change are related, often interrelated phenomena	<ul style="list-style-type: none"> ▪ Emergent change drives (Blomme, 2012), increases readiness (Biedenbach and Söderholm, 2008), paves the way (Burnes, 2004a) for deliberate/planned change ▪ Planned change likely to be superseded by emergent ‘point changes’, then formally joined together (Esain et al., 2008) ▪ Occurs so fast, planned change becomes obsolete (Biedenbach and Söderholm, 2008) ▪ Dynamic interplay between planning/emergence (Cunha and Cunha, 2003) ▪ Emergent activities often responses to ‘floundering’ planned change (Higgs and Rowland, 2005) ▪ Emergent change occurred within more structured framework (ibid.) ▪ Parallel stories of planned/emergent change (Page et al., 2008) ▪ Planned/emergent approaches co-exist in large, hierarchical organisations (Esain et al., 2008) ▪ Committee reports led to reframing/rebalancing of prevalent norms/values (Kickert, 2010) ▪ Majority of change emergent, not planned (Bamford, 2006) ▪ Describes how change actually happens, not how it is articulated (Higgs and Rowland, 2005) ▪ Emergent practices may be adopted/formalised at structural level (Cunha and Cunha, 2003) ▪ Seen as stance against planned change (Bamford and Forrester, 2003) ▪ Collection of complementary approaches rejecting planned change (Burnes and By, 2012) ▪ Difference between episodic/emergent change made too explicit (Vilkas and Stancikas, 2006) ▪ Both planned/emergent elements comprise realised structure after planned change (ibid.)

The review illustrates a wide range of thought and some inconsistencies (e.g. Biedenbach and Söderholm (2008) propose that emergent change occurs so fast that planned change becomes obsolete, also that it is incremental and slow). This may arise from the messiness of emergent change (Higgs and Rowland, 2005; Esain et al., 2008); its intuitive description by informants, without use of tacit theoretical models or frameworks (Higgs and Rowland, 2005); and the disparate approaches associated with emergent change (Livne-Tarandach and Bartunek, 2009).

This review has characterised emergent organisational change in its own right, rather than juxtaposing it with planned change (summarised in Table 6). It concludes that emergent change arises from the ongoing, day-to-day actions and responses of multiple, diverse, decentralised, embedded actors. In this characterisation, the organisational hierarchy is irrelevant (unlike ‘bottom-up’ conceptualisations); the point is that it involves multiple, heterogeneous actors. These characterisations also remind us of the centrality of people. Embedded actors are the sources of emergent change, it is accomplished through them, and it is they who discern and describe outcomes. We cannot name those involved because they are numerous, likely to be distributed, and act in their everyday context. However it reminds us that emergent change arises from, is accomplished by, and acknowledged through human agency, not from some other force.

Table 6: Character of emergent organisational change

Sources:	Emergent change arises from the ongoing, day-to-day actions and responses of multiple, diverse, decentralised, embedded actors.
Outcomes:	Various emergent outcome patterns can be discerned and described in broad terms, but are not pre-scribed. Outcomes are dynamic, and small changes may accumulate into more widespread patterns.
Process characteristics:	Emergent change is a largely informal, ongoing, dynamic process. It is a complex, locally-responsive activity, which is accomplished through people.
Relationship with planned change:	In practice, planned and emergent change are related, often interrelated, phenomena.

2.3.3 Connecting planned and emergent change

Pettigrew (2000) argues that the duality of planned and emergent change is “*ready for retirement*” since it directs attention away from the relationship between them. This has been done in related research areas. Clegg et al (2002) highlight the improvisational relationship between planning and acting. Levinthal and Rerup (2006) highlight a “*nuanced interplay*” in performance between mindful/less mindful perspectives in organisational learning. In the strategy-as-practice field, Mintzberg connects planned and emergent strategy, explaining that; “*there is no such thing as a purely deliberate strategy or a purely emergent one... In practice, of course, all strategy making walks on two feet, one deliberate, the other emergent*” (1987: 69). Balogun and Johnson (2005: 1574), also find that “*intended and unintended change become inextricably linked as [strategic] implementation progresses*”.

The question, therefore, is not whether to, but *how* to consider the relationship between planned and emergent change. Drawing on Seo et al (2004), Livne-Tarandach and Bartunek (2009) identify five ways in which OD research has addressed the planned/emergent change dichotomy: **selection, separation, integration, transcendence** and **connection** (see Table 7).

‘Selection’ chooses one over the other, so does not consider the *relationship* between planned/emergent change. Some studies take a **‘separation’** perspective. Esain et al (2008) discuss combining planned/emergent change during a transformation programme in a large NHS trust; suggesting that both approaches will exist in large, hierarchical organisations. They propose that initiating change should be planned and will be superseded by emergent change as the skills and knowledge of enthusiast converters develop. Although arguing that planned and emergent approaches are linked together to produce a subsystem of process change, they neglect the tricky question of ‘how’. Burnes (2004a) also takes a separation perspective at XYZ construction; but finds that emergent change paves the way for deliberate, planned change. Similarly, Biedenbach and Söderholm (2008) find that emergent change increases readiness for planned change in hypercompetitive industries. Burnes (2004a: 899) implies there is a choice between approaches:

“Planned and emergent changes are not competitors, with each one seeking to show that it is better than the other. Nor are they mutually exclusive or incapable of being used in combination. Rather they are allies, each one appropriate to particular change situations but neither appropriate for all”.

Page et al’s (2008: 259) midwifery case highlights two simultaneous stories; an **‘integration’** perspective. One, told by the formal body, represented a planned, linear, hierarchical approach to change. The other, told by those in an informal network, highlighted *“complexity, adaptivity, and a political adroitness to the power bases of different professionals”*; a more emergent approach to change. This suggests that the differentiation between planned and emergent change can be, as Weick (2000) suggests, a matter of perspective, rather than strategic choice.

In their **‘transcendence’** study, Cunha and Cunha (2003) argue that system change is more than planned change. Researching the interplay of planned/emergent change in Cuba, they find that institutional (structural) change results from a synthesis of planned and emergent change; similar to the dialectical mode (Van De Ven and Poole, 1995). They highlight managerial action (at what they suggest is the ‘emergent level’), and its influence on the state’s official position (presumably the planned element), in terms of adopting and formalising emergent practices at a structural level. They conclude; *“change trajectories are, to a great extent, emergent and, as such, unpredictable”* (p457).

Table 7: Ways of handling planned/emergent change

Approach	Definition	Interactions between Planned/Emergent Change	Illustrations
Selection	Paying attention to one pole of change and ignoring the opposite, perhaps inadvertently	Planned change is preferable to emergent change or vice versa; no interactions	Emergent change (Weick, 2000) <i>Planned change (Kotter, 1995)</i>
Separation	Recognising both poles of dichotomy but separating them through domain or temporal processes	Planned and emergent changes may take place sequentially or in different organisational domains	Contingency model of change (Dunphy and Stace, 1993) Planned change followed by emergent change (Beer and Nohria, 2000a); (<i>Esain et al., 2008</i>) <i>Emergent followed by planned (Burnes, 2004a; Biedenbach and Söderholm, 2008)</i>
Integration	Combining dualities by neutralising tensions between the two poles or by means of forced merger between poles	Both approaches are used simultaneously; emergence takes place within planned boundaries	Change initiative at ASDA (Beer and Nohria, 2000a) <i>Simultaneous stories (Page et al., 2008)</i>
Transcendence	Transforming (reframing) dichotomies into new perspectives or a reformulated whole that creates new meaning	New synthesis arises that transcends each of the original positions	Situated change (Orlikowski, 1996) Enterprise perfecting programme (Cunha and Cunha, 2003)
Connection	Embracing tensions by giving equal voice to bipolar positions which highlight the mutually reinforcing nature of the two poles	Vitality arises from interactions of planned and emergent change, <i>over time</i>	Vitality (Bartunek, 2003) <i>Complex Adaptive Systems (McMillan and Carlisle, 2007)</i>

Source: Livne-Tarandach and Bartunek (2009: 9-10) *Italics indicate additions*

McMillan and Carlisle (2007) bring a CAS perspective to a post-hoc review of a successful change programme at the Open University (OU). The change programme included formal interventions (a series of workshops) to encourage bottom-up participation, political interaction and real-time learning, to develop the programme for change at the OU. While it could be an example of ‘separation’, their conclusion takes a **‘connection’** perspective, embracing the mutually reinforcing nature of the two poles and highlighting the potential of CAS as a connection frame:

“There is no dualism between transformatory/radical/disorderly change versus incremental/orderly change, as complex adaptive systems engage in both appropriately and seamlessly, creating an ongoing flow of implicate and explicate change” (ibid.591).

Livne-Tarandach and Bartunek (2009: 2) themselves favour **‘connection’**; arguing that *“the adoption of a connection frame by OD researchers and practitioners may lead to a more complete picture of organizational change”* by appreciating the contributions of planned/emergent change to one another. They suggest that vitality, as a ‘transitory outcome’ of change, provides that connection frame, but also note the promise of CAS. My proposal (developed in Chapter 3) is that CAS provides a more fully developed theoretical framework within which to explore the planned/emergent change relationship.

2.4 Continuity and change

This section considers continuity/change as outcomes from organisational change processes. ‘Continuity’ is preferred to ‘stability’ here, as it suggests a dynamic quality, rather than a static, inertial state.

Continuity and change have been understood as alternative strategies e.g. exploitation/exploration (March, 1991); forces e.g. restraining/driving (Lewin, 1951); or states e.g. frozen/unfrozen (Lewin, 1947/2009). Change, understood as difference or alteration (e.g. Van De Ven and Poole, 1995; Van De Ven and Sun, 2011), represents discontinuity; the logical opposite of continuity.

Yet there is a relationship between continuity and change. Lewin (1951: 199) observes that *“change and constancy are relative concepts”* and March (1991) considers the need for balance between exploration and exploitation in organisational learning. Sturdy and Grey (2003: 652) propose that change and continuity *“are not alternatives because they are typically coexistent and coterminous”*. Graetz and Smith (2008: 275) highlight a *“bidirectional partnership between continuity (efficiency through operational capabilities) and change (flexibility and responsiveness through dynamic capabilities)”*. Pettigrew et al (2001: 700) propose that; *“any adequate theory of change should account for continuity, and this minimally requires*

the empirical exposure of change and continuity and the relationship between the two". So, once again, the question arises of how to connect the two concepts and explore their relationship.

The dichotomous distinction between continuity and change might be seen as a way of simplifying and directing attention (Pettigrew, 2000). Sturdy and Grey (2003) suggest that what constitutes continuity or change may be perspective dependent; with those studying change being 'pro-change', thus choosing to draw attention to unprecedented levels of change, rather than unprecedented levels of continuity.

However, understanding continuity and change is also intertwined with fundamentally differing assumptions about inertia and dynamism inherent in organisational behaviour. If organisations are understood as largely inertial, stability and continuity represent the norm, and "*change is an occasional interruption or divergence from equilibrium*" (Weick and Quinn, 1999: 366). In this view, change is episodic (Weick and Quinn, 1999); is represented as a dependent variable (Van de Ven and Poole, 2005); and perceived as an "*accomplished event*" (Tsoukas and Chia, 2002).

Other views see organisations as dynamic, with change the norm. Here change is continuous, "*a pattern of endless modifications in work processes and social practice*" (Weick and Quinn, 1999: 366); represented by a process narrative (Van de Ven and Poole, 2005); and perceived as "*enactment*" (Tsoukas and Chia, 2002). Tsoukas and Chia (2002) suggest that change is ontologically prior to organisation, which implies that 'changing' is a form of continuity. Feldman and Pentland (2003) have reconceptualised organisational routines, typically seen as a form of stability, as a source of change. Kanter et al (1992: 14) offer a dynamic description of stability as "*unified motion stemming from a coalescence of interests and activities*". Echoing Heraclitus' notion that all is flux, Morgan (1997) suggests that one metaphor for organisation is flux and transformation.

For some, however, the notion that 'being' is change indicates an unwelcome totalitarianism (Sturdy and Grey, 2003). Not everyone is 'pro-change'. Some argue that every change has costs but not all deliver benefits (e.g. Burchell and Kolb, 2006; Hodgson, 2011b). Hodgson (2011a) emphasises the centrality of habits and routines in organisational evolution. He proposes a more cautious approach to change, one which allows habits and routines to be preserved.

Returning to Seo et al's (2004) framework (in Table 7), those who are 'pro-change' or 'pro-continuity' are taking a '**selection**' perspective; paying attention to one pole (continuity or change). Echoing Lewin's (1951) field theory, Mintzberg (1987: 71) discusses how to reconcile opposing forces for stability and change in organisations, observing that "*clear periods of stability and change can usually be distinguished in any organization*". This takes a '**separation**' perspective.

Several authors suggest that continuity and change are considered simultaneously; an **‘integration’** perspective. Leana and Barry (2000) argue that stability/change are simultaneous experiences in organisational life, necessary for effective functioning over the long term, and highlight incentives for organisations and individuals to pursue both. They emphasise tensions between forces for stability and those for change; suggesting that change leadership should balance both. Graetz and Smith (2008) propose that organisations need to arbitrate tensions between notions of continuity and change inherent in traditional and new forms of organising. They describe them as *“competing but complementary narratives... because continuity depends on change as much as change depends on continuity... [and] both are essential for organizational growth and survival”* (Graetz and Smith, 2010: 136). Nasim and Sushil (2011) found a substantial body of literature advocating balancing the paradox of continuity and change, and propose actively managing both; although they highlight a deficit of empirical research and actionable frameworks for this.

Farjoun (2010: 203) contends that dualistic views of stability and change are overdrawn and *“too restrictive to capture the complexity of the subject”*. He proposes that stability and change not separable but are interdependent, contradictory but also mutually enabling, observing *“stability is both the outcome and medium of change, and the two graduate and fold into one another”* (p216). In practice, he proposes that; *“stability and change in different units and hierarchical levels may intertwine and depend on common practices and that rather than negating and displacing one another, they can mutually reinforce each other in a process of renewal”* (p218). In proposing a new duality, rather than a dualistic perspective, Farjoun’s work takes a **‘transcendence’** perspective, transforming dichotomies into a reformulated whole with new meaning.

My proposal is that CAS’s self-organisation offers a **‘connection’** frame to better understand the continuity/change relationship. Chapter 3 suggests that self-organisation is a dynamic process (of change), where outcome patterns might be perceived as continuity or change. Paradoxically, therefore, continuity may result from a highly dynamic process of change.

2.5 Change leadership

2.5.1 Intervening in organisational change

This section focuses on change leadership; considering issues of agency and intervention in organisational change. ‘Change leadership’ here refers to the role and activities of purposeful actors in processes of organisational change. It embraces notions of change leadership, change management and change agency, rather than differentiating between them (e.g. Kotter, 1996; Caldwell, 2003).

The organisational change literature, with its differing views of change and agency, paints a confused picture of change leadership (Caldwell, 2005; Burnes, 2009a); including considerable variability in assumptions about the manageability of organisational change (Palmer and Dunford, 2008). Palmer and Dunford map change management in terms of competing assumptions about (1) managing as controlling (top-down), or shaping (influencing) outcomes; and (2) change outcomes as intended, partially intended, or unintended. This provides six images of managing change: directing; navigating; caretaking; coaching; interpreting; nurturing (see Table 8 overleaf).

The framework classifies intervention strategies in planned change (which assumes outcomes are intended) as **‘directing’**, where interventions are prescriptive; or **‘coaching’**, where interventions are participative. This echoes Burnes’ (2009a: 364) distinction between strategic planning’s planned, directive change and OD’s planned, participative approach. Palmer and Dunford associate emergent change with partially intended change outcomes (*“where some, but not all, change intentions are achievable”*, pS22). Intervention strategies in their **‘navigating’** image are informed by processual approaches, while strategies in their **‘interpreting’** image are informed by sensemaking. The assumption that change outcomes are unintended, results in **‘caretaking’** and **‘nurturing’** images. The former sees managerial agency as constrained by evolutionary forces which *“propel change relatively independent of a manager’s intentions”* (pS23). The authors associate chaos and complexity theories with ‘nurturing’, but highlight challenges in legitimising these theories; warning they are often marginalised (Stacey, 2010: also makes this point). They suggest such theories are *“less attractive because they provide little scope for change manager agency”* (pS29). While complexity theories deny managerial system-wide control, they do not deny human agency (explored further in 2.5.2 and in Chapter 3).

Palmer and Dunford’s association of chaos and complexity theories with a ‘nurturing’ approach to managing change may cause confusion. As Chapter 3 elaborates, complexity theories explain how macro-level patterns of organisational change arise across populations of interdependent, interacting agents. However, complexity takes no position on the appropriateness, or normative benefits, of particular micro-level strategies. Emergence results from what everyone is and is not doing, which might include ‘directing’ or ‘navigating’ strategies, for example, as well as nurturing ones. It is inappropriate, therefore, to associate chaos and complexity theories with any particular micro-level intervention strategies. Further, the ‘nurturing’ label unhelpfully loads complexity theories with parental and positive connotations. Chapter 3 follows Stacey (2010) in arguing that such connotations are unwarranted. Self-organisation occurs through processes of iterated local interaction, it is not some special process; so managers do not need to ‘nurture’ self-organising qualities. Neither does self-organisation necessarily produce creative or ‘good’ outcomes.

Table 8: Images of managing change

		Assumptions about managing	
Assumptions about change outcomes		CONTROLLING	SHAPING
	INTENDED	DIRECTING <ul style="list-style-type: none"> Managers direct organisation in particular ways to produce required change Theories: 'N-step' (e.g. Kotter, 1995; Bullock and Batten, 1985); Contingency theories (e.g. Dunphy and Stace, 1993; Huy, 2001) Vision: clearly articulated top-down; vision essential from outset Communication: clarity of why (value), what, who, how, where, for internal/external stakeholders Resistance: undesirable; must be overcome 	COACHING <ul style="list-style-type: none"> Managers shape organisational capabilities without dictating exact direction of change Theories: Traditional OD (e.g. Lewin, 1947/2009; Schein, 1996; Chin and Benne, 1967/2009; French and Bell, 1999) Vision: produced through participation/consultation Communication: getting emotional buy-in; team-based, not top-down Resistance: expected - change takes people outside comfort zone; uses coaching/training to assist
	PARTIALLY INTENDED	NAVIGATING <ul style="list-style-type: none"> Managers navigate towards outcomes in a continuous process, there may be no final destination Theories: Contextualist/processual (e.g. Pettigrew et al., 2001; Dawson, 2003) Vision: may be multiple, conflicting between stakeholders Communication: paying attention to differing stakeholder needs, using persuasion/influence Resistance: inevitable; managing competing stakeholder interests 	INTERPRETING <ul style="list-style-type: none"> Managers create meaning for others, make sense of events/actions, 'connect dots' Theories: Sensemaking (e.g. Weick, 1995; Gioia and Chittipeddi, 1991) Vision: articulates organisation's 'inner voice' Communication: multiple sensemaking; sensegiving to different groups; conversation/dialogue as medium for change Resistance: likely - people have scripts based on past experience
	UNINTENDED	CARETAKING <ul style="list-style-type: none"> Managerial control constrained by internal/external forces propelling change Theories: Lifecycle theory; Population ecology theory (e.g. Hannan and Freeman, 1977); Institutional theory; Evolutionary process (Van De Ven and Poole, 1995) Vision: has limited impact Communication: reactive strategies assist people through change Resistance: natural individual coping mechanism; does not prevent change 	NURTURING <ul style="list-style-type: none"> Even small changes may have large outcomes; managers facilitate self-organising qualities Theories: Chaos/complexity (e.g. Stacey, 1995; Allen and Strathern, 2003; Mitleton-Kelly, 2003); Confucian/Taoist (e.g. Marshak, 1993) Vision: of little importance; hard to articulate in early stages Communication: fostering conditions, readiness for change; listening for new possibilities Resistance: may/may not have effect

Source: Developed from Palmer and Dunford (2008)

Theories shorthands theories; models; approaches (e.g. OD); perspectives (e.g. Confucian/Taoist)

Although consolidating a wide range of intervention strategies, the framework does not address concerns about relatively little change leadership research outside OD's well-developed approach to planned change (Caldwell, 2005; Burnes, 2009a). The studies of emergent change reviewed earlier were therefore revisited for insights concerning intervention in emergent organisational change (see Table 9, over two pages). It concludes that intervention in emergent organisational change is characterised by multiple, distributed, embedded change leaders; skilled and empowered to work 'live', using diverse interventions; where formal intervention by the powerful supports coherence.

The notion of working 'live' (borrowed from Shaw and Stacey, 2006) captures what change leaders are doing in emergent change, rather than considering it as unplanned. Emergent change processes and outcomes are not pre-planned, rather planning happens 'in the moment' e.g. by developing priorities as they arise (Esain et al., 2008) and 'sculpting' emergent change (Cunha and Cunha, 2003). The studies highlight that change leaders are several, decentralised and embedded. They suggest that embedded change leaders must be empowered (at least not disempowered), and multi-skilled. Their political adroitness and excellent interpersonal skills, including cross boundary networking, may enable change leaders to wield informal power. While top managers may only have a 'moderate' role at the outset (Vilkas and Stancikas, 2006), those with formal power have an important role supporting coherence of local changes into something more widely recognised. The studies depict a diversity of intervention strategies; reminding us that emergent approaches are not uniform (Higgs and Rowland, 2005), but locally driven.

In efforts to move beyond generic intervention strategies, empirical studies from Higgs and Rowland (2005; 2009; 2010; 2011) consider change leaders' approaches and behaviours in successful change implementation. They found that programmatic change approaches, which see change initiatives as linear, sequential and predictable, fail in most contexts; while approaches that embed recognition of the complexity of change are successful in most contexts (Higgs and Rowland, 2011: 364). Further, they found leader-centric 'shaping' behaviours (e.g. making others accountable, individual focus) have a negative effect on change success. In contrast, enabling behaviours of 'framing change' (e.g. defining starting points, guiding principles) and 'creating capacity' (e.g. developing capabilities, communication, connections) appear to facilitate successful change (Higgs and Rowland, 2011: 312, 330). Effective transformational leadership therefore combines high framing/capacity behaviours with low shaping behaviours. Further, high leader self-awareness enables avoidance of repeating systemic patterns which keep organisations stuck (Higgs and Rowland, 2010). They conclude that *"leaders need to focus efforts on doing change with people rather than doing change to them"* (Higgs and Rowland, 2011: 131). This fits with the relational view of leadership explored in Chapter 3.

Table 9: Intervention in emergent change

Summary	Examples
<p>Intervention in emergent change Multiple, distributed, embedded change leaders; skilled/empowered to work live using diverse interventions. Formal intervention by the powerful supports coherence.</p>	<p>Multiple, distributed, embedded change leaders</p> <ul style="list-style-type: none"> ▪ Cannot be implemented top-down/uniformly (Higgs and Rowland, 2005); ▪ Top management's role (initiating change) moderate (Vilkas and Stancikas, 2006) ▪ Managers as facilitators (Bamford, 2006) ▪ Managers part of emergent event (Blomme, 2012) ▪ Results from effects of managerial agency (Cunha and Cunha, 2003) ▪ 'Local orchestrators' - people with oversight/authority/interest (Wallace and Schneller, 2008) ▪ Central actors attempted indirect supervision, many decentralised actors led (Kickert, 2010) ▪ Cooperative/organisation-wide/shared responsibility (Biedenbach and Söderholm, 2008) ▪ Devolved responsibility (Bamford and Forrester, 2003) within common purpose (Bamford, 2006) ▪ Involves linking action by people at all levels (ibid.) ▪ Less centralisation, focus on creating environment for emergence (Higgs and Rowland, 2005) <p>Skilled/empowered</p> <ul style="list-style-type: none"> ▪ Multi-project capabilities, interrelated/partly conflicting change projects (Biedenbach and Söderholm, 2008) ▪ Political adroitness (Page et al., 2008; Burnes, 2009b) ▪ In-depth change process knowledge/tools; personal qualities/experience to use openly/behind scenes (Burnes, 2009b) ▪ Analytical: understands complex issues/range possible options (Bamford and Forrester, 2003) ▪ Stimuli considered: conceiving local ideas, interrelationships, patterns of change, using deeper listening, retrospective sensemaking, Socratic questioning for self-discovery (Young, 2009) ▪ Provides staff an avenue to improve without seeking 'permission' (Esain et al., 2008) ▪ Ensures people receptive, have necessary skills/motivation/power to take charge of change process (Page et al., 2008) ▪ Managers create organisational climate that encourages experimentation; develops workforce to take responsibility for identifying/implementing change (Bamford and Forrester, 2003)

(Continued)	<p>Working live</p> <ul style="list-style-type: none"> ▪ Develop priorities as they arise (Esain et al., 2008) ▪ Pace too rapid/complex for detailed planning (Bamford, 2006) ▪ Emergent change ‘sculpted’ (Cunha and Cunha, 2003); ▪ Less reliant on defined goals/action plans; works with emerging strategies (Esain et al., 2008) ▪ No deliberate orchestration of change (Page et al., 2008; Kickert, 2010) ▪ Messy (Higgs and Rowland, 2005); change agents try to make process neat (Esain et al., 2008) ▪ Less coherent approach (Biedenbach and Söderholm, 2008) ▪ Not quite defined, happening in lots of places (Wallace and Schneller, 2008) ▪ Uncontrollable (Burnes and By, 2012) <p>Diverse interventions</p> <ul style="list-style-type: none"> ▪ Building relationships/container for change (Higgs and Rowland, 2005) ▪ Preparation for change: shifting mindsets, establishing shared vision/strategy/plans, thinking together socially, delegating decision-making to those closest to action (Young, 2009) ▪ Commitment to act: accepting people support what they create (Young, 2009) ▪ Micro-level interventions involving individuals/small groups outside mainstream organisation; explicit experimentation; establishing unusual/unexpected connections to share learning/transfer new behaviours; working through informal networks (Higgs and Rowland, 2005) ▪ Pay closer attention to effect of local environment (Page et al., 2008) ▪ Diverse on-the-ground practices, cross-boundary networking (Wallace and Schneller, 2008) ▪ Different groups use power/manipulation to protect/enhance interests (Burnes and By, 2012) ▪ Power/politics, crucial aspects for change (Biedenbach and Söderholm, 2008) ▪ Reduced emphasis on ethics (Burnes, 2009b; Burnes and By, 2012) <p>Achieving coherence</p> <ul style="list-style-type: none"> ▪ Named/identified as a ‘thing’, something different (Wallace and Schneller, 2008) ▪ Emergent point changes joined together/formalised/supported to produce process change; needs management intervention (Esain et al., 2008); managers help develop common organisational purpose (Bamford and Forrester, 2003) ▪ Captured by change agents’ reporting (ibid.) ▪ Validation of needs: decisions to generalise local change/embrace the invisible/share understanding/suspend assumptions/enact change/cultivate internal variety (Young, 2009) ▪ Transition: synthesising initiatives into programme/harnessing emergent change/shared meaning (Young, 2009)
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2.5.2 Choice and limitations to choice

Choice of intervention strategy

Some advise change leaders to take a contingency approach, selecting intervention strategies according to organisational context. Palmer and Dunford (2008) counsel change leaders to choose strategies according to the type, context and phase of change, and whether there are multiple, simultaneous changes. Balogun and Hope Hailey (2008) consider strategic change as intentional, planned and deliberate; a process that can be facilitated, if not controlled. Their 'kaleidoscope' model locates design choices within a specific organisational change context; the need for context-sensitivity (no 'one best way to change') being their key message. Burnes' (2009a) Choice Management-Change Management model highlights three elements of choice: organisational context, focus and organisational trajectory. He argues that organisational context is actively constituted through a process of sensemaking and that change leaders make choices about how they understand the specific context for organisational change.

Particular approaches are considered more appropriate for some contexts than others. Radical, transformational changes are typically expected to be planned, often directive (challenged by Plowman et al., 2007a). Emergent approaches were found to work well for externally-driven, high-magnitude change, in a relatively short timescale; for long-term, internally-driven change where there is history of change; and to be more successful than other approaches in most contexts (Higgs and Rowland, 2005). The last point is not a surprising finding in a dynamic process like organisational change. Except for first-order change, any other change involves change to the governing framework (i.e. the context), and the emergent approach of working live is able to accommodate contextual changes. Change leaders may also accommodate a dynamic context by consciously focusing on managing change readiness, rather than specific changes, in a way that is "*continuous, proactive and driven by awareness, choice and decision*" (By, 2007: 8).

Choice of mental models

Change leaders may also choose which mental models of change they adopt to help them understand and intervene in particular situations: by selecting from alternative prescriptions (Burnes, 2009a); adopting a contingency approach (Van De Ven and Sun, 2011); or embracing multiple perspectives (Graetz and Smith, 2010).

Palmer and Dunford (2008: S30) advise change leaders to swap between their six images of managing change, or manage multiple images simultaneously, depending on the change or the change situation. Similarly Van de Ven and Sun (2011) advocate a contingency approach towards implementing organisational change; advising practitioners to reflect and revise their mental

model of the change process when action strategies fail to address implementation breakdowns. This highlights the importance of change agent learning.

Like Morgan's (1997) advocacy of the multiple images of organisation, Graetz and Smith (2010: 150) propose a multi-philosophy approach to change, by appreciating the value of complementary concepts in order to recognise the *"centrality of paradox in organizations"*.

Ethical choices

An important choice for change leaders is their ethical framework. Burnes (2009b; Burnes and By, 2012) laments the lack of an explicit ethical framework guiding many intervention strategies, particularly those associated with emergent change. He sees emergent change as politically, not ethically driven; oriented towards achieving what is good for the individual, rather than the collective (ibid.). Burnes contrasts this with Lewin's democratic-humanistic values underpinning OD's planned approach to change. Fifty years after Lewin's work, Church et al (1992: 6) observe that *"humanistic values remain at the core of OD efforts"*. Indeed, OD's distinctiveness in organisational change consulting rests on this *"bedrock of humanistic values"* (Bradford and Burke, 2004: 371).

However, in linking ethics to broad perspectives about change (e.g. planned/emergent), Burnes and By (2012) risk conflating understanding of organisational change with ethical choices that human actors might make about their participation. Therefore particular perspectives on organisational change might (wrongly) be thought to result in inherently 'better' outcomes.

Limitations to choice

Adopting a complexity perspective highlights some limitations to the choices that change leaders can make. As Chapter 3 explains, agents in human systems are considered semi-autonomous. This does not deny free will, but highlights that any individual's behavioural choices are enabled and constrained (though not determined) by those of other interdependent individuals. They are influenced by social 'rules' which Stacey (2010) understands as perpetually iterated themes of communicative interaction. Thus structure and agency are mutually-constituting (Giddens, 1986); which serves to bound the choices that change leaders can make about their agency.

More fundamentally, while the organisational change literature embraces a range of views about the extent to which change leaders can choose particular change outcomes, complexity theory takes a firm position. It denies that any individual, or coalition of individuals, can choose macro-level outcomes; instead these patterns arise non-linearly through processes of iterated local agent interaction (Stacey, 2010).

Discussions about the scope for change leader choices and intentionality of change outcomes are often intertwined (e.g. Palmer and Dunford, 2008). However, confusion may result when intentionality is associated with particular types of organisational change e.g. Weick and Quinn (1999) suggest that episodic (planned) change is intentional, whereas emergent change arises *without a priori* intentions. Conflating the nature of organisational change with choices that human actors might make is misleading. CAS offers some clarity to the limits of intentionality. As discussed above, human agents have some scope to choose or intend their own behaviours, but non-linear effects arising from the interplay of their intentions (Stacey, 2007), means that they cannot choose or intend organisational outcomes. Planned, intentional behaviour at an individual level may, therefore, lead to unintended, unplanned, unforeseen or unwanted emergent outcomes across an organisation.

2.6 Conclusion

This chapter illustrated that the organisational change and development literature is substantial, diverse, contested and fragmented. It framed that large, unwieldy, body of literature using three established frameworks which consider organisational change processes; change management foundations; and change outcomes. It briefly explained where the complexity perspective (developed in Chapter 3) fits into each framework and how it challenges and extends thinking.

First, it highlighted the variety of ways in which change processes have been conceived, framing them into four ideal types using Van de Ven and Poole's (1995) typology. CAS' self-organisation was positioned as an extension of the dialectical process, with the generating mechanism understood as micro-diversity among agents. It claimed that this clarifies the origin of the antithesis, which Van de Ven and Poole suggest is obscure.

Next, it framed the foundations of change management using Burnes' (2009a) three schools of thought. It proposed that CAS' self-organisation adds to the Open Systems School by clarifying what is changed and how, areas that Burnes suggests are unclear. CAS understands the mechanism for organisational change as iterated local agent interaction. What changes are the emergent themes/rules organising those complex responsive processes of relating.

Change consequences or outcomes were framed as first, second and third-order (Watzlawick et al., 1974; Bartunek and Moch, 1987; Tsoukas and Papoulias, 2005). It observed that emergent novelty in CAS represented second or third-order change.

The chapter drew attention to the prevalence of dichotomous distinctions in the literature and explored three fundamental ones in more depth: change as a ‘thing’/process; planned/emergent processes; change/continuity in outcomes. It proposed that these dichotomies are reframed as paradoxes, and that CAS’ self-organisation offers a ‘connection frame’ (Livne-Tarandach and Bartunek, 2009) to consider the mutually-informing relationship between the poles.

Building on Stacey (2010), it argued that organisational change is paradoxically both thing and process. Immersion in experience emphasises its process-like qualities, while abstraction from that experience allows change to be conceived as a definable ‘thing’ through its outcomes.

Next, it highlighted how planned and emergent change are characterised in the literature, noting that emergent change is typically expressed in terms which highlight it is *not* planned change. It offered a contemporary characterisation of emergent organisational change in its own right: clarifying its sources and outcomes; process characteristics; and relationship with planned change.

It also considered the relationship between continuity and change; arguing that both are potential outcomes of processes of self-organisation. Continuity may, therefore, also result from dynamic change processes.

The final section considered diverse views on change leadership, using Palmer and Dunford’s (2008) framework, and reviewed the emergent change literature to offer a contemporary characterisation of intervention in emergent change. It then considered choices, arguing that while change leaders have at least bounded choices about their agency, a complexity perspective shows they cannot choose global, system outcomes.

This conclusion to Chapter 2’s wide-ranging review of the organisational change literature has highlighted several areas where CAS’ self-organisation might address gaps and move on some long-standing debates. Two important ones will be explored further in this thesis:

- i. the relationship between planned and emergent change
- ii. individual potency of change leaders within emergent change.

For me, these gaps stem from two fundamental problems within the organisational change literature: (1) a lack of conceptual clarity about ‘emergent change’ (partly addressed in this chapter); and (2) a lack of clarity about the cross-level mechanisms connecting individual and organisational behaviour. As Chapter 3 will illustrate, applying a complexity lens helps address these problems.

Chapter 3: Complexity and self-organisation

*“Unknowable directions emerge from the spontaneous,
self-organising interaction between people”*

(Stacey, 1992: 8)

3.1 Overview

This chapter reviews the organisational literature on complexity and self-organisation, and explicates the theoretical framework for this study.

The first sections in Chapter 3 contextualise the research lens, CAS' self-organisation, in the wider organisational literature on complexity. Section 3.2 considers the application of complexity science to organisations; emphasising the importance of researching human systems, rather than just importing natural science findings. It highlights five main branches of complexity and considers their application to human systems. Section 3.3 elaborates on CAS and introduces key concepts underpinning the theoretical framework for this study. Section 3.4 discusses self-organisation: acknowledging its various roots; clearing up some common misconceptions; and clarifying how it is understood in this thesis.

The remaining sections explore the role and activities of purposeful actors within complex, self-organising systems. Section 3.5 revisits organisational change from a complexity perspective before considering its leadership. It reviews three bodies of work (complexity leadership; contextual leadership; complex responsive processes) and discusses themes arising: the relational nature of leadership; leaders creating conditions for emergence; and leaders as sense-makers and sense-givers. Section 3.6 picks up sensemaking, as it is central to the empirical study. It highlights the difficulties of sensemaking in complex systems; connects with the literature on sensemaking during change; and explores the notion of 'prospective' sensemaking.

Section 3.7 weaves together threads from CAS and sensemaking to develop the theoretical framework of self-organising change; adding one more (from psychology) explaining the social origins of intentional behaviour. It then positions the empirical study.

To conclude, section 3.8 draws together key arguments from this chapter.

3.2 Framing complexity

3.2.1 Complexity science and organisations

Complexity science “*is the science of evolutionary change, adaptation and self-transformation*” (Merali and Allen, 2011: 43). It is also the science of uncertainty (Stacey, 2010). Complexity’s radical contribution to organisational science lays in its explanation of how and why “*unknowable directions emerge from the spontaneous, self-organising interaction between people*” (Stacey, 1992: 8).

Although many refer to ‘complexity theory’ (e.g. Morrison, 2010; Chiles et al., 2010), there is no single theory of complexity (Cohen, 1999); it has “*numerous theoretical strands*” (Chiles et al., 2010: 11). Complexity theories emanate from biology, chemistry, physics, maths, evolution and computer science (Mitleton-Kelly, 2003). However, organisational scholars warn against directly mapping natural science characteristics across disciplines. Sawyer (2005: 20) highlights that some concepts and components from chaos and dissipative structures, “*have no clear correspondence to the entities of the social world*”; while Mitleton-Kelly (2003) suggests the natural sciences should provide just a starting point, and that human organisations must be studied in their own right.

The past two decades have seen dramatic growth in the application of complexity science to organisational issues (Maguire et al., 2006). Complexity science in organisation studies now provides “*a rich field of varied research agendas... characterized by epistemological, methodological and paradigmatic diversity... [which] makes complexity science as applied to organizations increasingly difficult to comprehend*” (Thietart and Forgues, 2011: 53).

There are three main branches within complexity science: deterministic chaos; dissipative structures; and CAS (Stacey, 2007; Chiles et al., 2010). Mitleton-Kelly (2003) adds two more: autopoiesis and economics. Their application to organisations is considered below.

3.2.2 Branches of complexity science

Chaos theory

Deterministic chaos, from mathematics, introduced notions of strange attractors, sensitivity to initial conditions and ‘the butterfly effect’ into management through authors like Gleick (1997), Wheatley (1999), Briggs and Peat (1989). Chaos theory influenced early complexity work (Byrne, 2005) concerning non-linear dynamics in organisations (e.g. Thietart and Forgues, 1995). Although the source of powerful metaphors (Lichtenstein, 1997), Battram (1998) suggests that management theorists struggled to apply chaos theory to organisations. Now it is typically

coupled with complexity; thus some scholars refer to ‘chaos and complexity theory’ (e.g. van Eijnatten and Putnik, 2004; Byrne, 2005).

Dissipative structures

Merali and Allen (2011: 43) contend that Ilya Prigogine’s discovery of dissipative structures in the 1960s provided the “*conceptual frame for understanding the dynamics of self-organization and transformation*” in complexity science.

Dissipative structures are “*orderly patterns that emerge spontaneously from small fluctuations or variations when an open system is maintained far from equilibrium*” (Chiles et al., 2010: 29). While they draw on Prigogine’s work in thermodynamics, where dissipative structures may arise from the application of heat to liquids beyond a minimum critical value (Prigogine and Stengers, 1984), Chiles et al make a distinction between thermodynamic and social systems. They note that, outside the laboratory, the self-organisation associated with dissipative structures “*occurs not exogenously, with the intentional application of heat, but endogenously*” (Chiles et al., 2010: 29). Therefore they criticise work which suggests that agents within organisational settings primarily respond to external forces, for applying dissipative structures too literally. Instead, they focus on endogenous sources of adaptive tension (McKelvey, 2004), similar to CAS. Several studies use dissipative structures to consider organisational change (e.g. Gemmill and Smith, 1985; Leifer, 1989; Macintosh and MacLean, 1999; Chiles et al., 2004).

Stacey (2007) views deterministic chaos and dissipative structures as ‘whole system’ theories, which extend system dynamics models by focusing on non-linear and deterministic relationships at the macro system level. Processes of iteration, in chaos, and bifurcation, in dissipative structures, mean that macro-level patterns cannot be point predicted. However, the relationships specified in the models (the non-linear equations in mathematical chaos and natural laws in dissipative structures) do not change, so they cannot model learning. Stacey suggests it is problematic, therefore, to apply these theories directly to human systems which are characterised by evolving relationships, except in a metaphorical manner. Sawyer (2005) also emphasises that chaos and dissipative structures have only a metaphorical relevance to emergence in social systems, since they are qualitatively different to natural systems. He classifies them as ‘second wave’ social systems theories; the ‘first wave’ being embedded in cybernetics and the ‘third wave’ in complex dynamical systems (CAS). He suggests that third wave theories have more relevance for the study of social emergence.

Complex adaptive systems

According to Merali and Allen (2011: 41); *“complex adaptive systems are systems that adapt and evolve in the process of interacting with dynamic environments. Adaptation at the macro level (the ‘whole’ system) is characterized by emergence and self-organization based on the local adaptive behaviour of the system’s constituents”*.

CAS theory, as developed at the Santa Fé Institute (SFI)⁴, considers complex, dynamic system behaviour at the micro-level in agent-based terms. Early agent-based computer models simulated the behaviour of flocks of birds and ants which interact according to local rules that cause each agent to adjust its behaviour to that of other agents (Stacey, 2007). In such systems, like in human systems, agents themselves are also adaptive, guided by internal models or schemata (Holland, 1995; Maguire et al., 2006). Stacey explains; *“the models demonstrate how local, that is self-organising, interaction yields emergent order for the whole system and also, in certain conditions, evolution in the form of emergent novelty”* (p189). Importantly there is no architect; no individual agents ‘manage’ that pattern, in any conventional sense, for the whole system.

CAS’s focus on local interaction (from Kauffman, 1993; 1995a), has been brought together with psychology and sociology by Stacey and his colleagues to consider complex adaptive *human* systems (e.g. Stacey et al., 2000). However Stacey (2001) prefers the term complex responsive processes (CRP) to explain human organisation. He finds the word ‘adaptive’ insufficiently active to describe how people relate to each other in a continuous flow of responses, and that ‘system’ is too mechanistic for humans. He observes that CAS have come to be interpreted as those where individuals are the agents; supporting cognitive theories of the primacy of the individual over the group, while in CRP, agents are *“themes that organise experiences of relating. The individual persona and the group are simply different aspects of one phenomenon, namely relating”* (Stacey, 2000: 369).

The evolutionary nature of complex systems is emphasised by Allen and colleagues (Allen, 2001b; Allen and Strathern, 2003; Allen et al., 2007). Allen (2001a: 155) suggests that complex systems do not merely adapt, but they learn and explore multiple possible futures, which change as they explore their *“space of possibilities”*. He and complexity scholars like Mitleton-Kelly (2003: 41) therefore prefer to consider human systems as complex evolving systems (CES), co-evolving within a social ‘ecosystem’; *“whereby the individual entities and the macro-structures they create through their interaction, influence each other in an ongoing iterative process”*.

Since CAS takes a micro-level focus in system change, it provides a useful lens for studies which consider agency in organisational change and development. CAS has been widely used in

⁴ The Santa Fé Institute is a transdisciplinary research community concerned with non-equilibrium, highly connected adaptive systems www.santafe.edu (accessed 21.04.10)

organisation studies and in previous studies of leadership in organisational change (e.g. Griffin and Stacey, 2005; Uhl-Bien et al., 2007; Plowman et al., 2007b).

Autopoiesis

Autopoiesis proposes that a biological system continually creates itself and that its boundaries arise from internal relationships (Maturana and Varela, 1987; cited in Stacey, 2007). Luhmann (1984) introduces the idea of social autopoiesis, suggesting that societies are seen as systems of communicative events that produce themselves (Stacey, 2007). Stacey argues that, since autopoietic systems are organisationally closed, if you are taking an open systems view, it makes little sense to consider organisations as autopoietic. Merali and Allen (2011: 33) disagree; arguing that autopoiesis has been highly influential in the *“evolution of ideas about the management and organization of systems”*. However they do accept that its impact in management has been *“largely at the conceptual level”* (p44). In their study of strategic change, Houchin and MacLean (2005: 163) draw on Luhmann to propose that organisations should not be regarded as adaptive, but as *“complex recursive systems, continually trying to reproduce themselves in the same way”* (emphasis added).

Economics

Complexity science insights also stem from heterodox branches of economics⁵. Chiles et al (2010: 27) argue that the Austrian School of economics (with its notion of radical subjectivism, which considers how people think, act and interact), is a strand of complexity theory; although they admit that the two theories are *“not yet conversing”* in the literature. Hodgson (2011a) also draws on evolutionary and institutional economics in his focus on micro-aspects of interacting agents in CAS (which, he argues, is underexplored in the complexity literature). He proposes a ‘genetics’ of social evolution where habits and routines (organisational ‘meta-habits’) are understood as causal mechanisms; replicators of complex social systems (Hodgson and Knudsen, 2004; 2006; Hodgson, 2011a). This leads him to advocate a ‘cautious’ approach to change (Hodgson, 2011b).

Economists at the SFI highlight the importance of increasing returns: positive feedback mechanisms which create instability and magnify advantages and disadvantages for firms, thus emphasising *“the tendency for that which is ahead to get further ahead, for that which loses advantage to lose further advantage”* (Arthur, 1996: 100). Increasing returns create path dependence, whereby the ‘pull’ of a new technology, for example, attracts further developments⁶. Increasing returns can deform Kauffman’s (1995b) rugged fitness landscape (a 3D depiction of evolutionary space as

⁵ Mainstream economics assumes homogeneity, perfect information and equilibrium dynamics; while heterodox branches consider heterogeneity of individuals, with bounded rationality, in disequilibrium conditions

⁶ Arthur considered the ascendancy of VHS over Betamax in the video recorder market, but contemporary examples include Apple’s iPhone/iPad, which created a market in compatible applications and shaped the development of competitor products in the smartphone/tablet markets

mountainous terrain), so that, as they adapt, organisms and firms can get stuck on lower ‘peaks’ representing local optima, rather than fully exploring their space of possibilities and achieving global maximum ‘fitness’ i.e. their ability to survive.

3.2.3 Taking a CAS perspective

The perspective developed in section 3.3 follows the CAS branch of complexity science (including CRP and CES discussed above) because its micro-level focus provides a useful lens to consider change leader agency in organisational change and development. Thus it understands iterated processes of micro-level local agent interaction as the source of emergent global pattern, and endogenous micro-diversity as the source of macro-level novelty. It also understands that each agent’s behaviour is enabled and constrained by the behaviour of other agents, and by structural norms arising from iterated processes of local agent interaction.

However, CAS does not exist in isolation. Thinking in this area has inevitably been informed by earlier work on chaos and dissipative structures (and systems work before that), and by other branches of complexity science. As section 3.4 highlights, understanding of self-organisation in organisation studies has drawn from several branches of complexity science, not just CAS. My own theoretical sensitivity has also been developed by taking a broad view of complexity science applied to human systems.

3.3 Framing CAS

The central idea in CAS is that complex adaptive systems self-organise; spontaneously creating order (Merali and Allen, 2011). There is no agreed-upon definition of self-organisation in the scholarly management literature (see 3.4), but Heylighen (2001) draws on its various threads to define self-organisation as *“the spontaneous creation of a globally coherent pattern out of local interactions”*. Local interaction, emergence (global pattern) and their co-evolutionary relationship are important features of self-organisation, and central ideas in the thesis that organisational change is self-organising; so each is briefly considered, then the position taken in this research is summarised.

3.3.1 Local interaction

“A complex adaptive system consists of a large population of agents, each of which interacts with some of the others in that population according to its own evolved principles of local interaction... Organizational change will be emerging in the local interactions of many, many people” (Stacey, 2012: 13, 15). Maguire et al (2006) explain that such agent interactions can be material/energetic or informational. In human

systems, Stacey (2007: 271) argues that conversation is the basic activity of local interaction. Yet, 'local' has no geographical connotation, so conversation could include written, verbal and virtual interactions with people on the other side of the world, as well as in-person interactions.

Early agent-based models (ABM) of cellular automata relied on simple rules of local interaction which, after repeated iterations, resulted in complex global patterns of behaviour e.g. flocking. Yet the principles of interaction (e.g. social norms) enabling and constraining each agent's choices in iterated processes of *human* interaction are not simple. They have evolved over time and continue to evolve as they are taken up and particularised in local interactions. Therefore, it makes little sense to think of human interaction being governed by 'simple rules' (except in extreme situations where cult values prevail Stacey, 2007). However, agents interacting in human systems are only *semi*-autonomous; their choices are constrained by the choices of others and by evolved principles of local interaction (Juarrero, 2000).

3.3.2 Emergence

In the complexity literature, emergence has a specific meaning (in contrast to the 'broad banner' of emergent change, described in Chapter 2). Emergence is a macro-level construct which "*refers to the arising of novel and coherent structures, patterns and properties during the process of self-organization*" (Goldstein, 1999: 49). Importantly those dynamically-evolving, macro-level patterns are not predictable from micro-level system components; they arise from recursive processes of interaction. Such emergent patterns may represent radical novelty, while having some coherence (i.e. order) over time (Goldstein, 1999). However, whether emergent properties have ontological status, or are epistemological artefacts is contested (Goldstein, 1999; 2000). Therefore Goldstein (2000: 5) describes emergence as an "*elusive and murky*" construct, caught "*amid a thicket of conceptual snares*". The view taken in this thesis (elaborated in Chapter 4), follows critical realists in considering that emergent global patterns are socially real since they have "*causal efficacy*" i.e. they affect behaviour (Fleetwood, 2005: 199).

In CAS, emergence specifically refers to "*the macro-level patterns arising in systems of interacting agents*" (Goldstein, 1999: 56). As Stacey (2010: 81) explains; "*emergence refers to a pattern arising across a population that is not the realization of a prior design or plan for that population-wide pattern but flows from many, many local interactions*". For this reason emergence is considered spontaneous. Although drawing from dissipative structures, Chiles et al (2010: 11) similarly define emergence as "*the creation and continual re-creation of unintended systemic order when purposeful individuals repeatedly act and interact based on their local knowledge, without direction from a central controller*". Emergence is, they suggest, complexity theory's "*anchor point phenomenon*" (Chiles et al., 2004: 502).

Goldstein (2000) notes that emergence is often assumed to be beneficial in some way. He attributes this to the computational underpinnings of much complexity work, where emergence represents an enhancement of computational capacity. It may also stem from evolutionary ideas, where emergence of higher-order entities improves the fitness of an organism or species i.e. its ability to survive (Kauffman, 1993; 1995a). However Goldstein emphasises that, in real-world emergence, outcomes may/may not be perceived as beneficial. He highlights experiences in the former Yugoslavia, where emergent patterns following the dismantling of central hierarchical control mechanisms included ethnic differentiation and hatred. He suggests that a key question for many organisational scholars is, therefore, how to ‘channel’ emergence toward a better state. This is picked up by those considering the leadership (e.g. Lichtenstein and Plowman, 2009), channelling (e.g. Hunt et al., 2009) and conditioning (Macintosh and MacLean, 1999; Macintosh and MacLean, 2001) of emergence.

However this idea of channelling emergence towards a ‘better’ state is problematic. An obvious question would be; better for whom? Better for one, some, most, or all of the agents in a system? Uneven power distributions in human systems mean that some agents may have more ability to constrain the behaviour of others in their local interactions through the use of Foucauldian disciplinary power (Stacey, 2010). Or, perhaps, ‘better’ relates to the survival of the system itself, which may have unwanted consequences for its human agents. A second question might be; better when? In non-linear feedback systems, cause and effect may not be closely located in time (Stacey, 2007). Therefore what seems beneficial in the short-term might prove otherwise over a longer time period, and vice versa.

Further, the ability of individual human agents to channel emergence is limited. As Stacey (2007: 323) contends “*no one can shape, influence or condition emergence*”. Global pattern arises from the iterated local interactions of many, many interdependent people. Nonetheless, emergent global patterns do arise from human agency, so it is helpful to consider the co-evolutionary relationship between micro/macro-level behaviour.

3.3.3 Co-evolution of micro/macro

Co-evolution refers to the notion that organisms co-evolve within an eco-system, a fitness landscape, so that “*adaptation by one kind of organism alters both the fitness and the fitness landscape of the other organisms*” (Kauffman, 1993: 242). Mitleton-Kelly (2003) makes a distinction between ‘co-evolution with’ and ‘adaptation to’ a changing environment; explaining that the latter suggests a hard boundary between system and environment, while the former highlights their mutually informing relationship.

In complex systems, emergent global patterning is understood as irreversible ‘structure’ which becomes input for the next round (Anderson, 1999); and serves to enable and constrain agent behaviour (Juarrero, 1999; 2000; 2011). Micro and macro-levels are, therefore, *“both distinct and interactive at the same time”* (Goldstein, 2000: 16). Mitleton-Kelly (2003) suggests that this reciprocal relationship between micro-events and macro-structures is a co-evolutionary process.

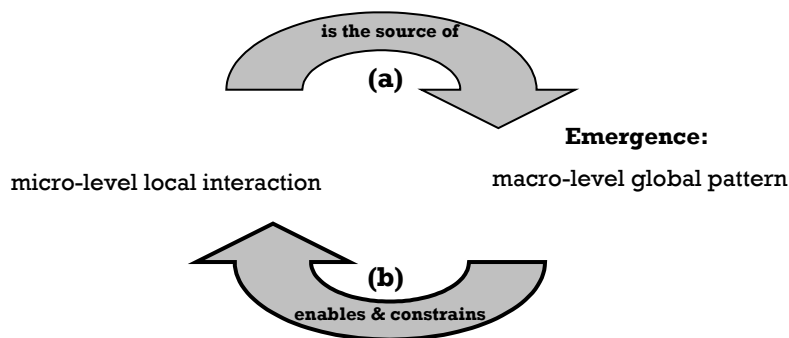
Goldspink and Kay (2010) propose a distinction between two classes of emergence; non-reflexive (in natural systems) and reflexive (in social systems). Reflexive emergence reflects the co-evolutionary relationship between agency and structure; emphasising what the authors propose is *“a unique feedback path between the emergent structure and the individual agents”* in complex human systems (p58). They argue that humans are reflexive agents; they are self-aware (able to distinguish self from other) and linguistically capable. Therefore they contend that human agents can notice, interpret and interact with emergent social structures.

3.3.4 Towards a theoretical framework

CAS’ self-organisation informs the theoretical framework for this study (developed in 3.7). The basic position is summarised in Figure 3. It follows Stacey (2007) in using the term local interaction to refer to micro-level behaviours, and in understanding emergence as global pattern across a population of agents, which arises spontaneously at the macro-level from processes of local agent interaction.

Unlike Stacey, who equates self-organisation with local interaction, the framework understands and depicts micro-processes of local agent interaction and macro-level emergent pattern as distinct and interactive (Goldstein, 2000), co-evolving with one another (Mitleton-Kelly, 2003) in the process of self-organisation. It considers that emergent patterns have causal efficacy (Fleetwood, 2005) in that the perception of them by reflexive human agents affects processes of local interaction which produce emergence (Goldspink and Kay, 2010). This macro-to-micro feedback path (b) is of particular interest within my research and informs the empirical study.

Figure 3: CAS' self-organisation as a theoretical framework



3.4 Framing self-organisation

As self-organisation is a central idea in my research, this section considers differing conceptualisations in the organisational literature, explores some common misconceptions, and clarifies how the term is understood in this thesis.

3.4.1 Defining self-organisation

Self-organisation has seen widespread use in the organisational complexity literature (McKelvey, 1999; Stacey, 2010); sometimes treated faddishly or superficially (McKelvey, 1999; Maguire and McKelvey, 1999). Self-organisation refers to the spontaneous creation of order through intrinsically generated structures (Merali and Allen, 2011). Some scholars emphasise micro-level processes, essentially of local interaction (e.g. Stacey, 2007), and others highlight its resulting order (e.g. Lichtenstein et al., 2006). Importantly *“self-organization is not the result of a priori design, it surfaces from the interaction of systems and the environment and the local interactions between the system’s components”* (Merali and Allen, 2011: 41). Thus outcomes arising from self-organisation, which Kauffman (1993) famously describes as *“order for free”*, are emergent.

Scholarly work on self-organisation has a number of theoretical roots. These include dissipative structures (e.g. Prigogine and Stengers, 1984); CAS (e.g. Holland, 1995; Kauffman, 1993); autopoiesis (Maturana and Varela, 1987; Luhmann, 1984; 1986/2008); cybernetics (Ashby, 1956, Internet 1999; Ashby, 1962); and system dynamics (Forrester, 1961; Forrester, 2007). While Heylighen (2001) suggests that core principles of self-organisation have started to emerge from these various approaches, each body of work places differing emphases on self-organisation. Thus there are differing emphases where self-organisation has been applied in organisation studies. Table 10 highlights some illustrative examples, intended to inform subsequent discussions, rather than providing a comprehensive analysis of the roots of self-organisation.

In empirical studies there are two main emphases; self-organisation as a process and as an outcome. For the former, self-organisation is variously said to be a *process* of transformation (Lichtenstein, 2000); collective communication around shared goals (Carapiet and Harris, 2007); adaptation (Boons, 2008); and interaction (Tapsell and Woods, 2010). Those who emphasise *outcomes* sometimes refer to ‘emergent self-organisation’ (e.g. Chiles et al., 2004; Plowman et al., 2007b; Lichtenstein and Plowman, 2009). Self-organisation is considered to be: a *“natural”* outcome of local interaction (Houchin and MacLean, 2005); system order (Chiles et al., 2004; Plowman et al., 2007b); structure with purpose (Boons, 2008); structure, patterns or properties (Koch and Leitner, 2008). Table 11 highlights illustrative process and outcome definitions used in empirical studies of self-organisation and change.

Table 10: Roots of self-organisation

Emphasis on self-organisation	Theoretical roots	Scientific roots	Key scholars include	Management applications (examples)	Emphasis in management
Deterministic patterning within phase space (attractors)	Chaos theory	Mathematics	Henri Poincaré Edward Lorenz Benoît Mandelbrot	(Nonaka, 1994) (Thietart and Forgues, 1995) (Brown and Eisenhardt, 1997)	Self-organisation as freedom to explore within boundaries
Macro-level outcomes of phase transitions; deep structure as self-reference	Dissipative structures	Physics/ Chemistry	Ilya Prigogine Isabelle Stengers Grégoire Nicolis	(Lichtenstein, 2000) (Chiles et al., 2004) (Houchin and MacLean, 2005) (Plowman et al., 2007a)	Self-organisation as a global emergent outcome: 'emergent self-organisation'
Micro-level interactions; often following simple rules	CAS	Multi-disciplinary; using computer simulation	John Holland Stuart Kauffman Per Bak Santa Fé Institute	(Stacey, 2001; Stacey, 2003) (Streatfield, 2001) (Griffin, 2002); (Shaw, 2002) (Carlisle and McMillan, 2006)	Self-organisation as a dynamic process of local agent interaction
Recursive, self-referential processes	Cybernetics	Multi-disciplinary	Norbert Weiner Ross Ashby	(Beer, 1967) (Luhmann, 1984)	Self-organisation as a process of feedback and learning
	System dynamics	Multi-disciplinary	Jay Forrester	(Senge, 1990a) (Meadows, 2008)	Self-organisation as a process of system evolution and learning
	Autopoiesis	Biology	Humberto Maturana Francisco Varela	(Luhmann, 1986/2008) (Mingers, 1995; 2006) (Morgan, 1997)	Self-organisation as a communicative process of identity self-construction

Table 11: Definitions of self-organisation

Process definitions	Outcome definitions
<p><i>“A transformational process initiated by external events, through which a new internally generated order emerges” (Lichtenstein, 2000: 133)</i></p> <p><i>“A collective process of communication, choice, and mutual adjustment in behaviour based on a shared goal among members of a given system without external order” (Carapiet and Harris, 2007: 467)</i></p> <p><i>“A dynamical and adaptive process where systems acquire and maintain structure themselves, without external control” (Boons, 2008: 42)</i></p> <p><i>“Complex networks of many independent actors interacting with one another. These interactions give rise to emergent properties different to the properties of individual actors; these properties are the consequence of self-organization” (Tapsell and Woods, 2010)</i></p>	<p><i>“The emergence of system level order as an unintended consequence of the action and repeated interaction of lower level system components without intervention by a central controller” (Chiles et al., 2004: 502)</i></p> <p><i>“Self-organization is the natural result of non-linear interaction, not of any tendency of individual agents to prefer or seek out order” (Houchin and MacLean, 2005: 151)</i></p> <p><i>“Order comes from the actions of interdependent agents who exchange information, take actions, and continuously adapt to feedback about others’ actions rather than from the imposition of an overall plan by a central authority” (Plowman et al., 2007b: 343)</i></p> <p><i>“Self-organization is more than order; it is a structure that has a function or purpose” (Boons, 2008: 43)</i></p> <p><i>“Self-organization means that new structures, patterns or properties emerge spontaneously without being externally imposed on the system” (Koch and Leitner, 2008: 217)</i></p>

In this study, self-organisation is used to refer to the dynamic, co-evolutionary *process* of local interaction and global patterning (as illustrated in Figure 3). To avoid confusion, *outcomes* of self-organisation are referred to as global pattern. ‘Pattern’ is used in preference to ‘order’ (from Kauffman, 1993), as order and organisation may be associated with stability, even inertia, while pattern simply acknowledges some observed coherence without implying any degree of permanence. It follows Stacey (2007) in understanding self-organisation as an everyday process from which patterns of continuity and change emerge. Those patterns are, therefore, simply “*the natural result of non-linear interaction*” (Houchin and MacLean, 2005: 151).

3.4.2 Misconceptions about self-organisation

Maguire and McKelvey (1999) observe that concepts from complexity and organisation science may seem analogous, but question whether this is still so once they have been rigorously defined and operationalised, drawing upon existing research. To avoid confusion, this section dispels common misconceptions about self-organisation and clarifies how the term is understood here.

It isn’t special

Stacey (2010) criticises those who consider self-organisation to be a special process; a mysterious, impersonal, creative ‘force’ to be encouraged in organisations; perhaps even a new organisational form. He concludes that; “*in the science, self-organization is not a force at all – it simply refers to local interaction*” (p80). Neither are self-organising systems a special type of system, since most natural systems can be seen as self-organising (Gershenson and Heylighen, 2003). This thesis follows Stacey by considering self-organisation as an *everyday* process of local interaction, not something extraordinary, or only possible within special organisational forms. Contrary to several process definitions in Table 11, self-organisation is not considered, necessarily, to be transformational (Houchin and MacLean, 2005: emphasise organisational continuity); to require shared goals; or to result in significant system adaptation.

It isn’t necessarily ‘a good thing’

Stacey (2010: 80) criticises those who imply that self-organisation “*only produces creative good outcomes*”. Such claims are similar to those suggesting that emergence is beneficial (discussed and criticised earlier).

Idealising self-organisation is considered unhelpful to further research for three reasons. First, it risks dogmatic prescriptions that self-organisation is ‘right’; rather than seeking to fully understand its application (and limitations) in a human context. Second, overemphasising its positive associations may fail to consider the shadow side. For example the process may be difficult e.g. if adaptation speeds up beyond individuals’ abilities to transition psychologically and emotionally (Bridges, 1986; 2003); while outcomes may be unsuccessful (Lichtenstein, 2000), destructive (Schneider and Somers, 2006), or unsafe (Morrison, 2010) for various organisational constituents or stakeholders. Indeed Weetman’s (2009) social care example claims that the interests of ‘the system’ may even perpetuate problems that those working in the field are trying to address. Importantly, outcomes which are ‘good’ in terms of a system’s survival may not be considered good for people within it. Third, it portrays an ideal state that is likely to be unattainable, or at least unsustainable, for many organisations (hence calls for new types of organisational form), rather than seeking to understand what it means for real organisations.

This thesis does not suggest that self-organisation produces good outcomes, but that it offers a helpful lens for those seeking to further understanding of organisational change.

It isn’t self-management

“*Order for free*” (Kauffman, 1993) is not a result of self-management by individuals, but self-organisation of a system. Stacey (2007) highlights common misconceptions among managers who conceive self-organisation as full-blown democracy where everyone is equal; as

empowerment at lower levels in the organisational hierarchy; or as disempowerment of those at the top. He is critical of management literature which (often, he says) equates self-organisation with empowerment and looser organisational forms, explaining that; *“self-organization, defined as the opposite of central control, is equated with self-governance, empowerment, teamwork in which individuals manage themselves within clear boundaries and bottom up decision making”* (Stacey, 2010: 79).

Self-organisation is an explanatory concept and should not be confused with self-management, democratic processes, or empowerment, since these are values-driven choices about how we *should* work. Conflating them by *“dressing up values in the neutral terminology of science”* is a form of disguised ideology, one which risks overlooking the inherent power dynamics of local agent interaction within social systems (Morrison, 2010: 382). In this thesis self-organisation is not considered a ‘better’ way of managing organisational change for those involved, but a more fruitful way of understanding it.

It isn’t laissez-faire

Self-organisation should not be confused with laissez-faire leadership (Morrison, 2010). It does not imply, as Smith and Humphries (2004: 97) suggest, that *“managers can, and should be, ‘hands-off’”*. Nor does it signify an absence of agent intentionality; rather it emphasises the interplay of intentions in complex systems (Stacey, 2007; 2010). Common managerial misunderstandings include linking self-organisation with anarchy, where everyone does what they please, or destiny, something that happens irrespective of what people do (Stacey, 2007). Self-organisation simply highlights that managers and leaders *“have to recognize the limitations of their knowledge and that plans may have to change”* (Morrison, 2010: 379).

3.4.3 Who or what is the ‘self’ in self-organisation?

Self-organisation also refers to an emergent outcome in which the system (the ‘self’) spontaneously displays order (‘organisation’) without being centrally controlled. There are two common misconceptions about who, or what, represents the ‘self’ in self-organising systems. The first is that the ‘self’ relates to individual actors. The second is that the ‘self’ relates to the organisation. It is not individual actors, nor organisations, but *systems* that self-organise. As Lichtenstein and Plowman (2009: 618) explain; *“it is the system as a whole that instantiates emergence”*.

The first misconception relates to the notion of individual actors organising themselves, rather than being organised by others. Privileging the primacy of the individual, self-organisation is thus linked to self-determination by individual members of an organisation (Stacey, 2010). It is this misconception which has created confusion with self-management (discussed above). Individual

actors may be understood as agents of self-organisation in complex systems. However their agency (or instrumentality) is a property of their interdependent relationships, rather than of individual persons (Stacey, 2001; 2007: suggests that agency resides in processes of relating). So the ability to organise a system is a distributed property of that system; it is not held by its agents.

If individual ‘selves’ are not organising the system, then perhaps the ‘self’ is the organisation. This second misconception can be disregarded from both a philosophical and a theoretical perspective. Philosophically, considering organisational entities as being capable of self-organising can be seen as unwarranted reification and anthropomorphism. Setting that aside, however, the theoretical problem relates to boundaries. Systems self-organise (through local agent interaction), yet system boundaries are permeable and flexible; changing as agent connectivity and interdependencies change. Conversely, organisational boundaries (defining who is ‘in/out’) are relatively fixed, so may or may not correspond with system boundaries. To illustrate, before 2008 individual banks may have considered themselves relatively autonomous and able to self-organise. However the emergent pattern of behaviour labelled ‘the credit crunch’ arguably represents self-organisation within the wider financial system. Boundaries of individual banks then mattered far less than connectivity and interdependencies within that global system.

This misconception that organisations self-organise may stem from the popular ‘organisations as organisms’ metaphor (e.g. Morgan, 1997). While usefully highlighting the interconnectedness of parts in the effective functioning of the whole, like all metaphors, taking a more literal application can be problematic. Considering that an organisation *is* an organism, rather than being *like* an organism, makes unwarranted assumptions about the defining nature of its boundaries.

This thesis proposes that organisational change results from self-organising *behaviour*. This does not mean that organisations (as institutions) self-organise, or that individuals within them take or accept empowerment. It means that self-organisation is a distributed process across a network of interconnected, interdependent agents. Outputs of self-organisation (patterns of organisational change or continuity) are therefore created by local interactions within that network.

3.5 Complexity, change and leadership

3.5.1 Complexity and organisational change

Stacey (1995: 481, 478) proposes that organisations are understood as “*nonlinear networked feedback systems*” and explains that the process of change “*is one of internal, spontaneous self-organization amongst the agents of a system*”. Therefore “*instead of being determined by a prior plan, organizational change will be*

emerging in the local interactions of many, many people” (Stacey, 2010: 65). Allen (2001a: 178) describes organisational change as; *“the invisible effects of diverse individuals, exploring, interpreting and attempting to model and make sense of their experiences”*.

Complexity perspectives often highlight the importance of informal dynamics in organisational change, as the informal system is where positive (disequilibrium) feedback often operates (Stacey, 1995; Houchin and MacLean, 2005). Like Allen (2001a), Stacey (1995) also emphasises the ‘invisible’ nature of informal systems and networks, while Rodgers (2007) highlights the ‘hidden’ dynamics of informal coalitions in organisational change. Informal dynamics may be invisible because they are *covert*: ‘undiscussable’ (e.g. defensive routines Argyris, 1985); part of an organisation’s shadow side (Egan, 1994); or shadow system (Shaw, 1997). Informal dynamics may also be *practically undetectable*: existing below our level of awareness by way of tacit knowledge (Nonaka, 1994); cultural shared assumptions (Schein, 1992); or because tiny changes which escalate through positive feedback are too small to measure (Stacey, 1995).

In their empirical study of strategic change, Houchin and MacLean (2005: 149) found that *“order emerges at the boundary between the organization's legitimate and shadow systems”*. This echoes Stacey’s (1995) notion of the importance of the region of bounded instability (where the equilibrium-seeking dynamics of formal systems and the disequilibrium-seeking dynamics of informal systems both operate) in strategic organisational change. Stacey now refers to the formal/informal system as legitimate/shadow themes which organise our experience of being together in organisations (Stacey, 2001; 2007; 2010; 2012). Like Shaw (1997), Houchin and MacLean (2005) argue that no one is in control of interactions in the shadow system.

Complexity perspectives also highlight the importance of micro-level diversity. Stacey (2007: 450) explains that *“the amplification of differences is the process of change”*; and therefore warns against the dominant management discourse advocating alignment and harmony (Stacey, 2010). Counter-intuitively, perhaps, he highlights that behaviours which might be seen as deviant or undesirable, such as resistance to change, are an important source of the micro-diversity which is essential for macro-level novelty (ibid.).

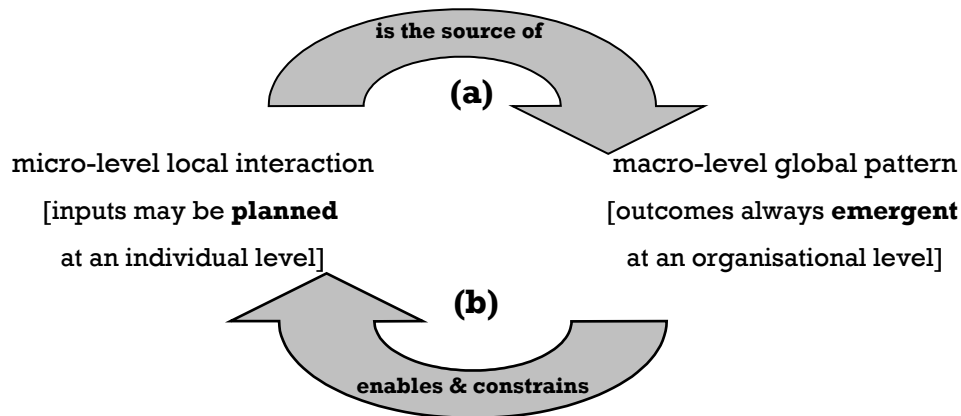
From a complexity perspective, therefore, organisational change is distributed, informal, difficult to detect and reliant on differences. This sits in stark contrast to mainstream ideas of planned organisational change as a formal activity, led from the top, communicated well and reliant on alignment across an organisation. Importantly, however, a complexity perspective is also distinct from many views of emergent change which are not informed by complexity (discussed in Chapter 2). It does *not* suggest that organisational change is unplanned i.e. that it happens in the

absence of *a priori* plans and intentions. Plans, intentions and the interplay of those intentions (Stacey, 2010) is the very stuff of local interaction. Neither does it suggest that organisational change is, or should be, 'bottom-up'. A bottom-up view still focuses on the formal organisation, whereas complexity highlights the importance of informal interactions and dynamics. Perceiving change as bottom-up often implies that organisational change is more participative and power is shared. While this may be more humanistic, complexity does not call for either. Agents in a complex system are not equal, they are heterogeneous and, in human systems, some will have more power than others. Neither is formal participation and involvement required. Agents simply need connectivity and interdependence to be 'involved', which might take the form of resistance within the shadow system.

From a complexity perspective, all the approaches that human actors take in leading change (whether they are labelled as 'planned' or 'emergent'), form part of the micro-level interaction. Since human agents have at least some autonomy about the intervention choices they make, each individual's inputs are considered to be planned; whether they take the form of formal plans, or 'in the moment' responses. Global patterns, however, are *always* emergent; since they arise from the interplay of micro-level interactions, which cannot be planned or controlled. This global pattern may be similar to or different from what individual agents intended, depending on the interplay of positive and negative feedback within processes of local interaction. Further, although it always arises from dynamic processes of local interaction, emergent global pattern may be understood as organisational continuity or organisational change by observers.

Figure 4 updates the developing theoretical framework of self-organising change (Figure 3) to illustrate the planned/emergent change relationship. In self-organising change, therefore, we can see that change is paradoxically both planned at the micro-level and emergent at the macro-level. Since micro and macro co-evolve together, this is not a temporal cycle. The macro-level patterns are emerging in the local interaction that they are enabling and constraining. This self-organising view of planned and emergent change is radically different from the way that 'planned' and 'emergent' are typically understood in the organisational change literature. The normal logic is that planned/emergent approaches at the micro-level should lead to respectively planned/emergent outcomes at a macro-level. This self-organising view highlights the mutually reinforcing relationship between planned change at the micro-level and emergent macro-level change.

Figure 4: Self-organising change



3.5.2 Complexity and change leadership

Applying complexity to understand and guide business practice is still fairly new (Allen, 2001a) and is not straightforward. It can be problematic translating complexity theories into management action (Smith and Humphries, 2004), and difficult to empirically test them (Cohen, 1999); especially since emergent outcomes “occur one level removed from management intervention” (Smith and Graetz, 2006: 852). No wonder, then, that Higgs and Rowland (2007) note a lack of systematic research exploring the relationship between leadership and approaches to change inherent in complexity theories, or that Schneider and Somers (2006) describe the linkage between complexity and leadership as nascent.

There is no agreed theory of leadership within the complexity literature beyond the basic assertion that no individual, however powerful, can *control* organisational change (except, perhaps, in extreme conditions e.g. with high levels of coercion, in a closed system, for a limited time, or in terms of strictly limited variables). Some suggest that complexity demands new ways of leading and managing. For example, Burnes (2004b: 321) concludes that “*organizations will have to change considerably in how they are managed and the way power is distributed if they are to apply complexity theories*”. This is echoed by those who argue that complexity demands a “*simpler way*” of organising (e.g. Wheatley, 1999); or an organic way of leading change (e.g. Regine and Lewin, 2000). These assertions are problematic for two reasons. First, there is a danger that complexity’s seductive imagery has been hijacked by those with an agenda to change hearts and minds about how we *should* lead, manage and organise. Second, if complexity theories can explain organisational phenomena, they must apply to *real* organisations, not just ideal ones.

Due to the dynamic nature of complex systems, complexity leadership is primarily concerned with change leadership. It is still a developing area of research which needs further exploration;

this research aims to contribute by furthering understanding of change leadership in self-organising change. Three bodies of complexity work providing insights into change leadership in real organisational contexts are considered below and key themes arising are discussed.

3.5.3 Complexity leadership

This body of research considers leadership in complex organisations, both theoretically (e.g. Marion and Uhl-Bien, 2001; Uhl-Bien et al., 2007; Uhl-Bien and Marion, 2009) and empirically (e.g. Plowman et al., 2007b; Lichtenstein and Plowman, 2009). Theoretical complexity leadership work argues that leaders need behaviours which enable organisational effectiveness and create conditions for productive behaviour, rather than determining or guiding organisational effectiveness (Marion and Uhl-Bien, 2001). Work to develop a complexity leadership theory (CLT) formalises three “*entangled*” leadership roles; administrative, adaptive and enabling leadership (Uhl-Bien et al., 2007). Enabling leadership proposes that it is possible to bring some level of intention and direction to CAS by articulating strategy and mission in a flexible way that does not restrict the creative process, but which discourages “*non-useful adaptations*” (p313). Later work puts CLT forward as “*a change model of leadership*” (Uhl-Bien and Marion, 2009: 632) and suggests that managers can design robust and dynamically adapting organisations in bureaucratic structures. It also suggests that formal (agentic) and informal (emergent) organisational dynamics are most effective when “*entangled*” as a unified, dynamic function. This brings the paradoxical notion of intentionality and emergent self-organisation face-to-face; once again supporting the notion of connecting planned and emergent organisational change.

Schneider and Somers (2006) also consider the implications of complexity theory for leadership research. They argue that Katz and Kahn’s (1978) notion of leadership as incremental influence over and above routine compliance (from General Systems Theory), also holds true in CAS; although it may be “*independent of, and possibly even contrary to, the authority structure*” (p356). They conceptualise leadership in CAS as an indirect, catalytic process and propose that leadership might influence conditions for emergent self-organisation through mediating variables of organisational identity and social movements. As organisational identity affects adaptive capacity (through its influence on sensemaking and action taking), they suggest that too rigid/malleable an identity is problematic; proposing that leaders consciously influence organisational identity to ensure continuity and fluidity. They identify social movements (networks with collective identity, where members participate in collective action) as catalysts for global system change. While noting that they are dependent on informal leaders, they suggest that formal leaders facilitate diffusion of ideas by mobilising resources to support particular social movements.

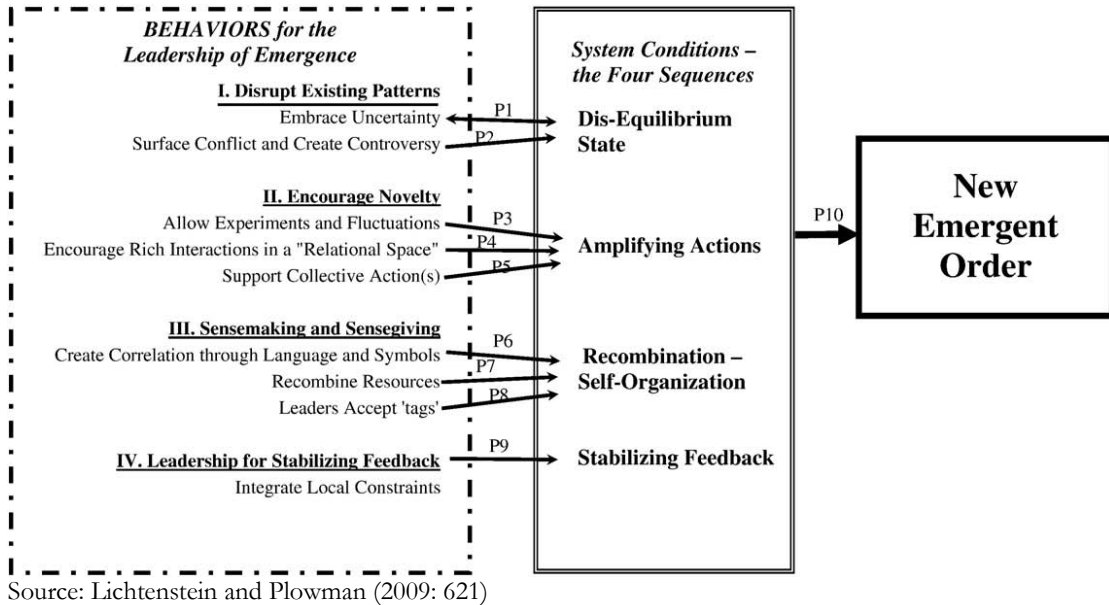
An early empirical study on transformative change asks if self-organised transition can be managed; tracking three organisations over a 9-12 month period as each navigated major transitions (Lichtenstein, 2000). It applies metaphors from dissipative structures to offer insight into how patterns in those self-organising processes may be understood; how control may be redefined “*by placing control in the system rather than in the hands of a single manager*” (p139); and how transformative change may be “*leveraged*” with managers identifying essential principles and “*allowing the whole system to participate in the redesign*” (p140). Another empirical study on organisational evolution also draws upon dissipative structures as a theoretical and narrative framework to retrospectively explain the emergence of an organisational collective of musical theatres over 100 years (Chiles et al., 2004). The authors claim that the good match they found between patterns deduced from complexity theory and those found in their field data have provided “*an empirical test of complexity theory at the collective level*” (p514).

The emergence of radical change is taken up in the story of Mission Church (Plowman et al., 2007a: 519), where the transformation is explained retrospectively using “*four constructs from complexity theory*’ [which] are essential to understanding emergent behaviour and provide a theoretical framework for better understanding continuous, radical change”. A further article explores the role of leadership in this case; suggesting that leaders contribute to emergent, self-organisation by disrupting existing patterns of behaviour; encouraging novelty; and acting as sense-makers (Plowman et al., 2007b).

A more recent study, which draws upon the empirical work discussed above, uses CAS as a theoretical framework to identify four conditions for emergence and nine behaviours for “*enacting a leadership of emergence*” (Lichtenstein and Plowman, 2009: 621). Leadership here is not seen as the province of top management, but is distributed; the behaviours “*can be enacted by managers and line employees at all levels of the organization, through every interaction across the organization*” (p618). The four behavioural categories (in Figure 5) broadly reflect Lewin’s 3-Stage model of planned change. ‘Disrupt existing patterns’ could equate to ‘unfreeze’; ‘encourage novelty’ and ‘sensemaking and sensegiving’ with ‘change’; and ‘leadership for stabilizing feedback’ with ‘re-freeze’. While the process may appear familiar, what we see here is a focus on creating conditions, rather than creating outcomes. Outcomes are purely emergent; resulting from four system conditions which are typical of complex systems far-from-equilibrium (often referred to in the management literature as the ‘edge of chaos’ e.g. Beinhocker, 1997; Pascale, 1999).

⁷ Namely: (1) initiating conditions; (2) far-from-equilibrium state; (3) deviation amplification; and (4) fractals and scalability.

Figure 5: Behaviours that co-generate conditions for new emergent order



Overall, this body of research enhances understanding of complexity leadership in three main ways. It uses complexity to reconceptualise leadership within existing organisational forms, rather than advocating new ways of organising. It explores leadership in the context of emergent self-organisation (specifically organisational and inter-organisational change). The detailed empirical studies show how complexity can be applied as a theoretical framework to explain organisational change.

However, while Lichtenstein and Plowman (2009) usefully suggest how organisational actors may influence conditions to catalyse self-organising change, they do so largely in the abstract, drawing upon constructs, rather than data, from previous empirical research. In addition, two of the three case studies were largely retrospective (Chiles et al., 2004; Plowman et al., 2007a) and two used the ‘whole systems’ theory of dissipative structures (Lichtenstein, 2000; Chiles et al., 2004); distancing them somewhat from the detailed interplay of micro-level interactions. My research builds on this foundation to explore change leadership in the midst of self-organising change.

3.5.4 Contextual leadership

Osborn et al (2002) argue that leadership effectiveness is largely dependent on and embedded in context; that one cannot separate leaders from context. Leadership, they suggest, *“is socially constructed in and from a context where patterns over time must be considered and where history matters”* (p798). They highlight the collective nature of leadership, commenting that *“leadership... is the collective*

incremental influence of leaders in and around the system" (p798). They also emphasise the relational nature of leadership, suggesting that; *"leaders do not stand alone or above or below. They stand among others. Above all, it is the leadership patterning across time, not at any one time, which seems to alter the trajectory of the system"* (p810).

Osborn et al consider four generic contexts characterised by differing degrees of complexity and volatility: stability, crisis, dynamic equilibrium and edge of chaos (categories from Marion and Uhl-Bien, 2001). They also emphasise two information-based dimensions of leadership, *"patterning of attention"* and *"network development"*; suggesting they are neglected dimensions in the leadership literature, which have greater import as contexts become more complex and dynamic. In relation to the former, they argue that *"leaders have at least limited choices to define what information is and what constitutes important information"* (Osborn et al., 2002: 813). They focus on attention (how top managers focus attention and how that is recognised), rather than intention as they suggest intention is particularly difficult and problematic to establish. Since patterning of attention is thought to stimulate and channel adaptation (Osborn et al., 2002; Osborn and Marion, 2009), it is considered as an important dimension to consider in terms of change leadership. Osborn and Marion (2009: 195) suggest that patterning of attention *"involves dialog and discussion on what is important, not what to do or how to do it"*; carefully differentiating it from transformational leadership, where leaders provide inspirational views of some future state.

Their second informational dimension is *network development*; which considers the networks of individual leaders within and outside organisational boundaries to be an important aspect of contextual leadership. The authors note that *"an embedded perspective would recognize that collective as well as individual aspects of network leadership would be salient"* (p818). Leadership in complex systems might, therefore, helpfully be understood as a manifestation of *"collective network action"* (Vogel, 2005). Indeed institutions themselves might be understood as an observable pattern of collective action (Czarniawska, 2009).

This work makes several contributions. Notably, it illustrates the relational and embedded nature of leadership, and acknowledges that organisations do not have fixed boundaries or operate in isolation. It also highlights the importance of 'patterning' across time in altering a system's trajectory (i.e. organisational change). Further, it highlights the informational role of top managers in terms of leaders' attention patterning and networking.

Although emphasising that leadership is embedded in context, Osborn et al do not explore the co-evolutionary dynamic of context inherent in complexity. If individuals are simultaneously forming and being formed by the social (as Stacey, 2003 argues), then context is dynamic and

perpetually iterated. Therefore the view that *"the demands, constraints and choices for leaders stem from the context"* (Osborn and Marion, 2009: 192) only considers part of the picture. By understanding context as pre-existing, rather than co-evolving with local interaction, it underplays the practical difficulties of patterning attention and network development.

Picking up on Kauffman's (1993; 1995a) notion of 'order for free' when complex systems reconfigure far-from-equilibrium, Osborn and Hunt (2007: 319) consider whether leaders can choose order in CAS. They note that, even with the best of intentions, top managers may engage in positive practices that are inadvertently harmful to the 'fitness' (i.e. survival) of the system. They conclude that; *"while there is order for free, a desired order is not"* (p319). Further, they observe that selecting performance measures for organisational effectiveness (e.g. financial performance) is an implicit selection of desired order and may not, therefore, lead to fitness. Instead they argue for sensitivity to multiple and conflicting aspects of performance from various constituencies.

However their assertion that organisations seeking greater effectiveness require bottom-up structuration combined with top down hierarchy (redolent of Beer and Nohria, 2000a: Theory E and Theory O) makes a fundamental error. It assumes that the organisation *is* the system (indeed they refer to "complex adaptive organisations" Osborn and Hunt, 2007: 321), despite earlier observations about the fluidity of organisational boundaries (Osborn et al., 2002). This error is later compounded with the proposition that top managers should stimulate and channel strong emergence *"so that the firm chooses a desired order"* (Hunt et al., 2009: 505) which contradicts their earlier conclusion that desired order is not for free (Osborn and Hunt, 2007).

While complexity scientists highlight the incompressibility of complex systems (Cilliers, 1998), Osborn and Hunt (2007) argue that some level of decomposition of complex systems is justifiable to enable focus. They make an important point since, arguably, any research into complex systems involves some degree of simplification and decomposition. Since research, therefore, is always partial, it can be helpful to take multiple, even conflicting, perspectives into account, as Chapter 4 will elaborate.

Osborn, Hunt and colleagues (Osborn and Hunt, 2007; Hunt et al., 2009) then bring hierarchical perspectives from Jaques (1989) to consider how top managers might stimulate and channel organisational emergence. From their earlier work, they propose that top managers can stimulate emergence and new initiatives for change by influencing 'patterning of attention' and 'network development'. They may channel emergence, the authors propose, by informal processes to select some initiatives to be turned into adaptation. The focus on tops, middles and bottoms is familiar in leadership and organisational behaviour due to the pervasive notion of bureaucracy,

however, this kind of hierarchy has little relevance in complex systems. Agent interaction is not defined in hierarchical terms, but by local organising principles. Notions of top-down/bottom-up are therefore less relevant in complex systems. What may be more helpful is to extend Osborn and Hunt's (2002) idea of network development, since connectivity and interdependence of agents (Mitleton-Kelly, 2003) help determine CAS behaviour.

3.5.5 CRP and leadership

The foundation of Complex Responsive Processes (CRP) is built on the notion of *gesture* and *response*. This is why Stacey (2003) argues that the individual cannot be isolated from the social in organisation. From a CRP perspective, managing is *"a process of continually rearranging the paradoxes of organisational life"* (Stacey, 2007: 449).

According to Stacey (2010), despite being more visible and powerful, leaders are participants in organisational life and, while they may express their desires for an *"imaginative whole"* (typically labelled 'vision'), leaders cannot stand outside their own local interactions and control, or even substantively shape, population wide patterns. Therefore *"it is impossible for leaders to determine values, change cultures or move whole organizations along their own envisioned direction"* (Stacey, 2010: 214).

From a CRP perspective, the role of leader is co-created and continually iterated by social processes of recognition (Griffin, 2002; Stacey, 2010). Stacey (2010: 220) describes leadership as *"mutual recognition [which] is much more fluid and shifts around the group even though legitimate authority continues to be identified with those 'higher' in the hierarchy"*. That shifting leadership is considered to be emergent, creating temporary leaders (Houglum, 2012). However Houglum's view of temporary leaders as 'first among equals' (from servant leadership, Greenleaf, 1977) reflects a contrasting view of power differentials.

In CRP *"the primary activity of an effective leader is to constantly evoke and provoke further exploration by members of a group, as they together act into the unknown and then respond to what they produce"* (Stacey, 2010: 215). Stacey (ibid.) suggests that effective leaders *"articulate emerging themes"* which offer tentative expressions of what might be going on, while acting into the unknown. In so doing, they are attempting to 'see like a state' and formulate a view of what is emerging at a distance across populations of organisational members and wider societies. This involves *"a particular ability to articulate the generalizations, the wider social patterns or social objects, which are being particularized in the interaction"* (ibid.).

Effective leaders therefore *"act imaginatively"* and reflect. Stacey describes this (from Bourdieu, 1998) as a paradoxical process of both immersing in and abstracting from experience, and

concludes that *“one recognized as an effective leader displays an enhanced capacity to think, feel, reflect and imagine”* (Stacey, 2010: 216). Although in 2010, Stacey discusses the paradoxical process of both immersing in and abstracting from experience, much of the work from Stacey and his colleagues focuses on the former.

Stacey’s recent work directly considers the tools and techniques of leadership and management (Stacey, 2012). Its major contribution is how it considers the radical, practical implications of CRP at the micro-level for real people in real organisational contexts. Stacey argues that management tools and techniques⁸ do not enable leaders to choose and manage efforts towards an improved future for their organisations. He views them as instruments of (1) Foucauldian disciplinary power and (2) coercive persuasion, which enable powerful people to exert control over human bodies and human minds (respectively) at a distance. He also suggests that they can block the development of practical judgement; expertise *“acquired in the experience of learning how to lead and manage”* (p121).

Practical judgement, Stacey suggests, requires mindful participation in the conversational practices of (micro-level) local interaction, which *“calls for enhanced, expert capacity on the part of leaders and managers to understand the kinds of response likely to be evoked by their gestures at particular times, in particular situations, in particular groups of people”* (p113). He also suggests that it calls for opening up conversation to develop *“a wider awareness, an intuitive understanding, of the thematic, narrative patterning of conversation”* (p113); the macro-level patterns outlined in Figure 4. As leaders use practical judgement to interact locally, Stacey proposes they may need (1) to be spontaneous and improvise (arguing that management tools inhibit this and the associated learning); and (2) engage in *“the ordinary politics of everyday life where the techniques of rhetoric play a part and the matter of ethics assumes major importance”* (p8).

Central to developing practical judgement, Stacey contends, is reflexive inquiry; *“ongoing reflection on the judgments made and the consequences they produce... in which the actors reflexively think together about how they are thinking about what they are doing”* (2012: 8). Mentoring and exploratory forms of coaching (akin to ‘work therapy’), may be useful techniques for developing practical judgement.

⁸ These include: planning/strategy tools (e.g. PESTEL, SWOT, Porter’s 5 Forces); decision-making tools (e.g. decision trees, DCF, simulations); monitoring/control tools (e.g. budgets, management reports, project control techniques); generalised motivation tools (e.g. performance appraisal, recognition schemes, team building days); tools for improving/developing organisations (e.g. organisational learning, OD, problem-focused coaching); second-order systems tools/techniques (e.g. participative planning methods, Soft Systems Methodology) (Stacey, 2012:43-48)

3.5.6 Themes arising

While explicit links have been made between complexity leadership and contextual leadership, CRP has developed separately. However, there are some themes arising from the three strands of literature reviewed here:

- leadership as a relational phenomenon
- leaders creating conditions for emergence – Figure 3/4 (a)
- leaders as a sense-makers and sense-givers – Figure 3/4 (b).

Leadership as a relational phenomenon

Lichtenstein and Plowman (2009: 618) propose that leadership does not reside ‘in’ behaviours or occur ‘due to’ context. Rather it takes place in the relational ‘space between’ people (Bradbury and Lichtenstein, 2000; Lichtenstein and Plowman, 2009). For Stacey and Griffin, leadership is co-created by mutual recognition (Griffin, 2002; Stacey, 2010). Osborn et al (2002) propose that leadership is socially constructed; that it needs to be recognised; and is embedded in context.

Leadership is distributed; understood as the *“collective incremental influence of leaders in and around the system”* (Osborn et al., 2002: 798). Thus leadership influence is ‘shared’ since it *“often involves peer, or lateral, influence and at other times involves upward or downward hierarchical influence”* (Pearce & Conger, 2003: 1). In CAS, leadership is independent of and potentially counter to the authority structure (Schneider and Somers, 2006: 356).

While legitimate authority is still identified with those higher in the organisational hierarchy (Stacey, 2010), leadership may be enacted by managers and employees at all levels (Lichtenstein and Plowman, 2009). Indeed who is recognised as a leader is fluid and may shift around a group (Stacey, 2010), with different agents emerging as adaptive leaders under different leadership styles (Schreiber and Carley, 2006).

Leadership emerges from the interactions of organisational actors (Plowman and Duchon, 2008) in social networks (Sweetman, 2010) and social movements (Schneider and Somers, 2006). It is that emergent *“leadership patterning across time”* which is critical in altering a system’s trajectory (Osborn et al., 2002: 810).

Leadership as a relational phenomenon highlights that it is mutual, embedded, distributed, shared, enacted, fluid and emergent. It is a property of agency, not agents. This study considers leadership to be relational. ‘Change leaders’, therefore are those people who are identified as such, not necessarily those who have formal change or leadership roles. The empirical case uses snowball sampling and a survey to identify change leaders at Educase (see Chapter 4).

Creating conditions for emergence

Complexity leadership work argues that leaders need behaviours which enable organisational effectiveness and create the conditions for productive behaviour, as opposed to determining or guiding organisational effectiveness (Marion and Uhl-Bien, 2001). Lichtenstein and Plowman (2009) highlight four system conditions that leadership behaviours can ‘co-generate’ (referencing the relational nature of leadership) to stimulate organisational emergence. Schneider and Somers (2006) highlight mediating variables of organisational identity and social movements which can be indirectly influenced by leadership.

In contextual leadership, Osborn et al (2002) suggest that key conditions for emergence are ‘patterning of attention’ and ‘network development’. These conditions can be influenced by top managers, they suggest, to stimulate and channel emergence (Osborn and Hunt, 2007).

This notion of leaders creating conditions for self-organisation has been taken up in practice articles on complexity (e.g. Knowles, 2002). It has also been adopted in the mainstream organisational change literature, e.g. Palmer and Dunford’s (2008: S26) ‘nurturing’ image, drawn from complexity, which *“involves fostering the conditions for change”*. In the management literature, leaders are exhorted to push organisations to the ‘edge-of-chaos’ to stimulate conditions for emergence (e.g. Brown and Eisenhardt, 1998; Pascale, 1999; Pascale et al., 1997); and encouraged to *“guide the positive deviance process as it unfolds”* (Pascale and Sternin, 2005: 81)

Stacey (2007: 374), however, does not consider creating conditions for emergence because he sees emergence as arising from *“the narrative patterning of everyday experience”*. As discussed in section 3.4, he does not see self-organisation as ‘special’, but part of organisational reality (Stacey, 2010). As Falconer (2002: 117, 120) contends *“emergence happens”* and *“change exists independently of the attention that it paid to it”*.

This study follows Stacey in considering emergence as global pattern arising from local agent interaction. It therefore makes no sense to think of emergence as something that only happens under special conditions; emergence happens anyway. However, emergence does not happen without people. So it seems likely that people with positional power or informal influence may affect conditions for emergence, even though they may not be able to channel it. Understanding emergence as global pattern, rather than necessarily adaptation, also allows that emerging patterns may represent continuity or change. This is a different position to those who equate emergence with change (adaptation or phase transition). Those who talk about creating conditions for emergence are really, therefore, talking about creating conditions for organisational change.

Sensemaking

Complexity leadership emphasises sensemaking and sensegiving behaviours in co-generating conditions for self-organisation. Lichtenstein and Plowman (2009) propose that leaders create ‘correlation’ (shared understanding of the system, Marion and Uhl-Bien, 2001) through language and symbolic action (Plowman et al., 2007b). They also build on Holland’s (1995) notion of ‘tags’, similar to flags or banners; defining a tag as *“an identifier for a valued set of behaviors; as such a tag directs attention to things that are important, giving meaning to actions that might otherwise go unnoticed”* (Lichtenstein and Plowman, 2009: 625). Leaders, they suggest, are role models who accept tags *“when other people see that individual as symbolizing a message that is trying to be communicated through the system”* (ibid). Schreiber and Carley (2006: 71) find from their dynamic network analysis that adaptive leaders (Uhl-Bien et al., 2007) *“were central agents who were influential in facilitating interactions and knowledge flows, thereby advancing the co-evolution of human and social capital”*. Schneider and Somers (2006) also highlight the importance of sensemaking, encouraging leaders to foster continuity and fluidity of organisational identity to foster an organisation’s adaptive capacity.

In contextual leadership, the sensemaking/sensegiving focus is the ‘patterning of attention’; an informational dimension of leadership. Patterning of attention *“involves isolating and communicating what information is important and what is given attention from an endless stream of events, actions, and outcomes”* (Osborn et al., 2002: 811). Leaders, particularly those in top management roles, have some choices about how to define what information is and what information is important (Osborn et al., 2002). However, *“the patterning of attention is an embedded, emergent characteristic of the individual and collective attempts of leaders to influence others by manipulating what is seen and analyzed”* (p817). Osborn and Marion (2009) differentiate patterning of attention from transformational leadership ideas of creating an inspiring vision, and liken it to knowledge creation (Nonaka, 1994). They emphasise the leader’s role in facilitating dialogue and discussion about what is important, to transform tacit personal knowledge into emergent collective understanding. Such patterning of attention is conjectured to enhance adaptive performance.

Rather than focusing on the patterning of attention, Stacey (2007) focuses on the *“interplay of intentions”* and how leaders express their desires for an *“imaginative whole”* (2010). However both contextual leadership and CRP highlight the interplay/patterning in context, rather than focusing on individuals’ intentions in the abstract. Dialogic, conversational approaches highlighted in contextual leadership are also central to CRP. Shaw (2002) proposes a dialogic approach to organising and change; which is ‘improvisational’ (Shaw and Stacey, 2006) to *“constantly evoke and provoke further exploration by members of a group”* (Stacey, 2010: 215). Once again, however, a key difference with CRP is that it does not claim to channel emergence, simply to reflect it as part of continuing responsive processes.

Although Stacey does not use the term sensemaking, he conceptualises a leader's sensemaking role as "*articulating emerging themes*" and patterns within particular interactions (Stacey, 2010: 215). His recent work has a stronger sensemaking theme. In it he proposes that expert leaders use their experience to recognise patterns and that "*the patterns they recognize are the emerging patterns of interaction that they and other people are creating*" (Stacey, 2012: 107). Leaders and managers, he says, exercise their expertise "*to carry on responding to what emerges*" (ibid.106). This notion of change leaders noticing and responding to emerging patterns is picked up in the empirical study (see 3.7).

3.6 Sensemaking in evolving systems

Since sensemaking forms a key aspect of the theoretical framework for this study, it is now explored in more depth.

3.6.1 Sensemaking in complex systems

Despite its importance, managerial sensemaking in complex systems is not straightforward. Merali and Allen (2011) remind us that bounded rationality (Simon, 1991) of agents highlights limitations in the information available to managers and in their cognitive capacity for making optimal decisions. In complex systems "*it's harder to make sense of things, because the degree of complexity may lie beyond our cognitive limits*" (Sargut and McGrath, 2011: 70). Further, "*emergence disguises cause and effect. We don't really know what's going on*" (Sullivan, 2011: 89).

Mauboussin⁹ (in Sullivan, 2011: 90-91) highlights several difficulties of sensemaking in complex systems: a human tendency to create narrative explanations that link cause and effect in systems where those causal links are "*not comprehensible*"; over-emphasising expert (single) points of view; reluctance to share information; and lack of cognitive diversity "*because our natural inclination is to hang out with people who are mostly like us*". Appropriate strategies, he suggests, utilise the 'wisdom of crowds' (such as building a 'team of rivals' and using 'prediction markets' to aggregate employees' knowledge); and undertake small experiments with controls.

Sargut and McGrath (2011) also highlight difficulties of sensemaking due to cognitive limits to understanding; combined with a tendency of managers to overestimate their capabilities. Further, they propose that sensemaking involves filtering and simplification; which may result in poor interpretation. Like Mauboussin, they emphasise the need for diversity because any individual has "*a vantage point problem: It's hard to observe and comprehend a highly diverse array of relationships from any one location*" (Sargut and McGrath, 2011: 72). They also note that rare events

⁹ Sullivan's article is an interview with Michael J Mauboussin, adjunct professor at Columbia Business School

(and outliers) are important in complex systems, while lack of familiarity may pose particular problems for sensemaking. Their proposed strategies for overcoming sensemaking difficulties echo Mauboussin. They highlight the need to ensure diversity of thought; for triangulation (of multiple perspectives); and drawing on storytelling and counterfactuals.

3.6.2 Sensemaking during change

Lüscher and Lewis (2008) contend that the dynamic context of organisational change also offers a challenge to managerial sensemaking. Thus their action research uses a paradox lens for a questioning process which helps middle managers make sense of organisational change by exploring the managerial challenges they experience during the change process.

Other studies have contributed to understanding managerial sensemaking during organisational change. Isabella (1990: 31) studied how managers construe events as change unfolds, proposing a four-stage sequential model (anticipation, confirmation, culmination, and aftermath) suggesting that; *“the transition from one stage to another is initiated by a trigger event and fueled by the personalization of that trigger”*. While it helpfully highlights the importance of trigger events in sensemaking during change, a linear model has limited applicability when organisational change is understood as a non-linear process of self-organisation. Gioia and colleagues consider sensemaking during strategic change in higher education. Gioia and Chittipeddi (1991) highlight the CEO’s role in sensemaking and sensegiving during the initiation of strategic change. Gioia and Thomas (1996) consider how top management teams make sense of important issues that affect strategic change; finding that their perceptions of institutional identity and desired future image are key to the sensemaking process.

Balogun (Balogun and Johnson, 2005; Balogun, 2006) also focuses on strategic change, but considers the informal, lateral sensemaking of middle managers as change recipients. Her finding that inter-recipient sensemaking contributes to the emergent nature of strategic change emphasises the co-evolutionary nature of complex systems; whereby the process of local interaction that is inter-recipient sensemaking contributes to both intended and unintended global change outcomes.

Other studies of middle manager sensemaking in organisational change include Huy (2002), who discusses managers’ contributions in terms of ‘emotional balancing’ (emotionally committing to change and attending to change recipients’ emotions), and Beck and Plowman (2009), who consider middle managers’ sensemaking around rare or unusual events. In line with Lichtenstein and Plowman’s (2009) proposal that complexity leaders ‘disrupt existing patterns’ and ‘create

correlation' through sensemaking/sensegiving; Beck and Plowman conclude *"middle managers can facilitate divergence of interpretation in early stages of organizational interpretation by surfacing conflicting views—and convergence in later stages of interpretation by synthesizing disparate views"* (p909). Maitlis and Sonenschein's (2010: 559) review of sensemaking in change concludes that research on middle manager sensemaking *"shows that organizational change gets enacted through middle managers who mediate the sensemaking between top managers and employees on the frontline to affect both cognitions and actions"*.

The above studies helpfully highlight the role of managerial sensemaking in organisational change and offer insights into the process. Studies of middle manager sensemaking are particularly interesting from a complexity perspective since they highlight the importance and role of sensemaking within a connected and distributed population of people in enacting organisational change. In so doing, they offer insights into the nature of local agent interaction and the role of sensemaking in complex evolving human systems.

While these studies make a valuable contribution to understanding sensemaking in organisational change, their focus is on change recipients making sense of planned, top-down change (episodic change; Weick and Quinn, 1999). There is a gap, therefore, in understanding sensemaking, from the perspective of change leaders in self-organising change, which is understood as continuous (Weick and Quinn, 1999) and emergent at the macro level; a pattern resulting from an *"interplay of intentions"*, rather than anything that any individual or group intended (Stacey, 2010: 9).

3.6.3 'Prospective' sensemaking

While Weick (1995; Weick et al., 2005) emphasises retrospective aspects of sensemaking, others contend that sensemaking can be oriented to the future (Gephart et al., 2010). Sensemaking is 'prospective' as it concerns what is expected, considered likely to come about, by those doing the sensemaking.

Prospective sensemaking might be understood as a largely imaginative activity. Chiles et al (2010) consider subjective expectations of an imagined future in a process of 'dynamic creation'; where entrepreneurs imagine divergent futures and combine/recombine heterogeneous resources to create novel products. How entrepreneurs make sense of a possible future is seen to influence how they behave and, therefore, local interaction. The focus on imagination is picked up by Stacey (2010: 214) who discusses how leaders may express designs and plans for population-wide patterns in terms of their desires for an *"imaginative whole"*. These expressed desires for an imaginative whole are understood as gestures calling forth responses. Stacey notes that while the

powerful may choose their own gestures, they cannot choose the gestures or responses of others. Nevertheless, the expression of a future imaginative whole may influence local interaction.

Scharmer (2000; 2001) proposes that learning from the future as it emerges helps leaders to organise around emerging opportunities and to lead revolutionary change. Later work suggests that leaders can learn from a future that *wants* to emerge (Senge et al., 2005; Scharmer, 2009). While some of the language is spiritual and mystical, the questions are more straightforward. In essence Scharmer is asking how we can sense, even ‘pre’-sense, an emerging future. His term “*presencing*” refers to the capacity for sensing, embodying, and enacting emerging futures in the present (Scharmer, 2000).

Klein et al (2011) introduce the notion of ‘anticipatory thinking’ as a forward-looking aspect of sensemaking which they differentiate from prediction. Anticipatory thinking involves sensing “*that something doesn’t feel right*” (p237); “*imagining how unexpected events may affect plans and practices*” (p235) and seeing connections between events. Snowden (2011: 223) differentiates between anticipation of the future (akin to prediction) and developing ‘anticipatory awareness’, where the aim is to understand “*the evolutionary potential of the present*”. His qualitative approach invites large numbers of organisational stakeholders to develop micro-narratives, using technology to plot the ‘landscape’ (referencing Kauffman’s fitness landscapes) of what that population deems possible.

In complex systems, futures are “*unknowable*” (Stacey, 1992) as well as unpredictable, so this idea of anticipating what is emerging in the living present is an important one. Stacey (2012: 108) suggests that expert leaders exercise practical judgement to recognise *emerging* patterns of interaction; they have the “*ability to notice more of what is going on and intuit what is more important about a situation*”. Making sense of patterns which are emerging, rather than emergent, means that patterns are not established and outcomes may only be transitory, as Livne-Tarandach and Bartunek (2009) suggest. Further, in times of change, emerging macro-level pattern may represent radical discontinuity.

Therefore, making sense of patterns emerging in complex systems is challenging work, which requires perceptual and conceptual sensitivity. Firstly, detecting weak signals is difficult perceptual work, especially since current context determines what people scan for (Snowden, 2006). It requires enhanced awareness of group, organisational and societal patterns, and sensitivity to what is going on at the margins (Stacey, 2012: 108). Secondly, making sense of weak signals about patterns emerging, rather than emergent, is difficult conceptual work which entails working with considerable uncertainty. That uncertainty calls for something in between a retrospective orientation and a purely imaginative activity; it calls for intuition. Stacey (2012: 108)

highlights the need to *“intuit what is most important about a situation”*. Klein et al (2011: 237) emphasise the importance of intuition in seeing connections and interdependencies between events. Making practical judgements about emerging patterns therefore requires considerable experience and practical expertise (Klein et al., 2011; Stacey, 2012). In a similar vein, Weick (2011: 10) proposes that change agents connect the ‘flux’ of their continuous perceptions from first-hand, concrete experience, with their abstract, conceptual ‘hunches’ about the meaning of that flux, which *“bracket some portion of it, [and] imagine patterns that exist within the brackets”*.

Further, when we understand the macro and micro as co-evolving, then sensemaking, in terms of articulating intuitions or hunches about macro-level patterns, is part of the local interaction which produces such patterns. Weick (1995; Weick et al., 2005) calls this ‘enactment’. Colville et al (2012: 7) suggest that sensemaking is *“a balance of making sense through thinking and acting in which there is always an element of both”*; although, in more uncertain situations, they argue the balance tips towards acting. Snowden and Boone (2007: 68) agree, arguing that; *“leaders in this context need to probe first, then sense, and then respond”*. As human agents’ perception and conception of emerging global pattern affects their action, macro-level global pattern is understood to have causal efficacy; it affects behaviour (Fleetwood, 2005).

As discussed in section 3.3, Goldspink and Kay (2010) contend that, in human systems, emergence is reflexive, since each agent observes the structure he/she contributes to producing and that the process of observation contributes to what emerges. Rather than considering this a process of observation, it is proposed here that it should be understood as a process of sensemaking i.e. that each agent makes sense of the emerging global patterns that he/she contributes to producing and that process of sensemaking contributes to what emerges through processes of local interaction.

3.7 Change leadership in self-organising change

This section summarises what we know about change leadership in self-organising change from the extant literature. Then it highlights that we still know relatively little about the macro-to-micro dynamic in self-organising change from the perspective of change leaders; proposing an exploratory study to address that gap.

3.7.1 Change leadership in self-organising change: what we know

3.7.1.1 Self-organising change

Research question 1 asks: **What's the relationship between planned and emergent organisational change?** CAS reframes organisational change as self-organising. That reframing shows that organisational change is a continuous process and that there is a co-evolving relationship between planned behaviour at a micro-level and emergent, macro-level patterns of organisational change.

1a) What can be planned by change leaders?

Organisational change is planned at the micro-level. Human agents choose how they act (their "gestures", Stacey, 2001); albeit those choices are constrained by those of other people with whom they interact and by evolved social patterns (norms). Therefore change leaders (purposeful actors in organisational change) may choose intervention strategies. The more formal, programmatic, deliberately interventionist, highly directional strategies, which may be episodic (although "continuous discontinuous change" is now common, Colville et al., 2012: 7), are considered 'planned' in the organisational change literature. However, this reframing highlights that more informal, improvisational, less directional strategies, designed to create conditions for change, which the change literature confusingly labels 'emergent', are also planned at the micro-level. Further, human agents have some choice about their basis for action. This includes their images or mental models of change and their ethical choices. These too can be planned.

1b) What is emergent, why and how is it emergent?

However human agents cannot plan, choose, or significantly control the macro-level outcomes of their actions, since they are non-linearly related to micro-level behaviour. Actions call forth responses, so patterns arise across populations of people in organisations from the interplay of the intentions of interdependent people, enacted in processes of local interaction. These global patterns may be labelled as organisational change, or organisational continuity, by observers. Both are emergent macro-level patterns arising from dynamic micro-processes of local agent interaction.

As recursive processes of interaction between diverse people can amplify actions through positive feedback, that macro-level patterning of local agent interaction across a network of interconnected agents (a system) may be radically different from what any agent, or group of them, intended. Therefore, even when people in organisations appear

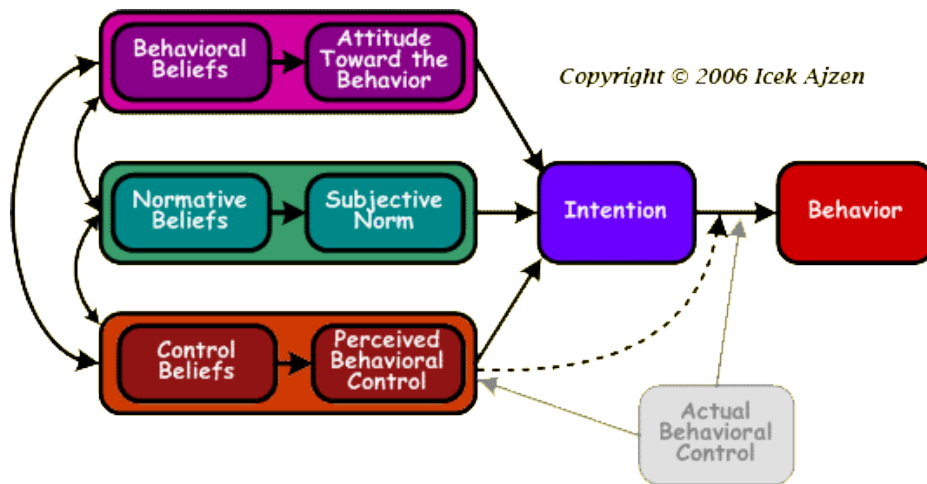
‘aligned’ to particular courses of action, slight differences, enacted in local interaction, under far-from-equilibrium conditions of change, may lead to surprising, unexpected, or unwanted organisational outcomes. So, organisational change is emergent as a result of micro-diversity among its members and stakeholders, which may be amplified through normal, everyday processes of interaction. Those emergent outcomes may be similar to, or different from, those that change leaders planned.

Further, emergent, macro-level patterns enable and constrain agent choices through themes arising in patterns of interaction and evolving social norms. This is not just an adaptive process, but a reflexive one, where agents in human systems notice patterns arising in local interaction, interpret them in language and choose how to respond; the process is one of sensemaking. The position taken in this thesis is that perceived and conceived macro-level patterns have causal efficacy, as they affect behaviour.

While CAS tells us that it is the *interplay* of plans and intentions (Stacey, 2007) which creates the emergent global patterning that we call organisational change, it offers relatively little insight into *how* that planned behaviour arises at an agent-level. Juarrero (2000: 27) argues that emergent patterns contextually regulate (enable and constrain) the behavioural alternatives available to an agent. She also argues that the macro-level does not act on its components forcefully; but through “*conditioning and learning [which] import the environment into the agent’s dynamics by reorganizing and recalibrating those dynamics*” (ibid.38). I propose that social psychology, namely Ajzen’s (1991; 2012) Theory of Planned Behavior, adds to the complexity literature by offering insight into how those conditioning and learning processes lead to planned behaviour at an agent-level within a social system. Thus it helps us understand more about the macro-to-micro relationship between emergent change and planned change within processes of self-organisation.

The Theory of Planned Behaviour (TPB) explains goal-directed behaviour of individuals (see). It proposes that “*behavior is performed not automatically or mindlessly but follows reasonably and consistently from the behavior-relevant information available to us*” (Ajzen, 2012: 438). Behaviour is planned in that it follows from an individual’s behavioural, normative and control beliefs. However, this does not suppose rationality. Ajzen argues that “*even if inaccurate, biased, or otherwise irrational, our beliefs produce attitudes, intentions and behaviors consistent with these beliefs*” (Ajzen, 2012: 451).

Figure 6: The Theory of Planned Behavior



Source: Ajzen (2006)

Importantly, the beliefs influencing behaviour are developed socially. Attitudes toward the behaviour follow from beliefs about that behaviour's likely consequences. Norms are influenced by perceptions of *"the normative expectations of important others"* (Ajzen, 2012: 438). Perceived behavioural control, which Ajzen likens to Bandura's (1977) concept of perceived self-efficacy, is influenced by *"past experience with the behavior... the experiences of acquaintances and friends, and by other factors that increase or reduce the perceived difficulty of performing the behavior in question"* (Ajzen, 1991: 196). We would therefore expect that the sense a person makes of macro-level patterns arising from local interaction influences the beliefs guiding their behaviour.

Further, the TPB explains that the specific performance of behaviour is a joint function of intention (generalised attitude) and perceived behavioural control (i.e. an individual's perception of their ability to perform that behaviour) in that particular instance. This allows that the specific performance of any intended behaviour is not simply the result of generalised intentions, but is influenced by local context including the perceived and actual behaviour of specific others. This is consistent with notions of gesture and response in processes of local interaction.

Micro-level aspects of human agents interacting in processes of emergence are underexplored in the complexity literature (Goldspink and Kay, 2010; Hodgson, 2011a). So, while CAS does not deny the intentionality of human agents, the complexity literature tends to gloss over it. As illustrated above, the TPB adds to the complexity literature by explaining how conditioning and learning processes import something of the emergent social context into planned behaviour. While the TPB focuses on individual persons, it does not return us to mainstream assumptions about the primacy of autonomous individuals in organisational change, much challenged by complexity theory, and is therefore compatible with the complexity lens adopted in this research.

3.7.1.2 Implications for change leaders

Research question 2 asks: **If organisational change is self-organising, what does that mean for change leaders?** There are three broad implications:

(i) Planned change affects emergent change – but change leader agency is limited

Change leaders may choose their behaviours, although their repertoire of choices may be enabled and constrained by others with whom they interact and by evolved social patterns of behaviour. What they cannot choose are organisational outcomes, which may be near to or far from those that change leaders intended. Varying assumptions about the scope of change leaders' influence on organisational outcomes have been acknowledged in the organisational change literature e.g. Palmer and Dunford's (2008) classification that change outcomes may be assumed to be intended, partially intended, or unintended. However, self-organisation clarifies that emergent outcomes *only* arise from what every agent is doing and not doing; not from some other special force.

(ii) There is no choice between planned/emergent change

Since planned and emergent elements are mutually forming through their co-evolving relationship in self-organising change, one cannot exist without the other. Therefore it makes no sense to think of planned or emergent change as alternative strategies that change leaders may take. They may be more usefully understood as paradoxical *perspectives* in an ongoing process of self-organisation. 'Planned' change privileges the micro-level perspective, while 'emergent' change privileges the macro-level. Both are conceptual abstractions from the continuous process of self-organisation where planned behaviour and emergent outcomes co-evolve.

While the organisational change literature acknowledges that planned/emergent change are related phenomena (see Table 5 in Chapter 2), there are various conceptualisations of how they are related, with little understanding of how they are mutually-informing (Livne-Tarandach and Bartunek, 2009). Applying CAS' self-organisation clarifies how planned/emergent change are mutually-informing. Indeed it makes a much stronger statement by claiming that planned/emergent change are mutually-*constituting*.

(iii) Emergent change affects planned change

Since planned behaviour and emergent outcomes are co-evolving and thus mutually-constituting, it follows that emergent change affects planned change. There has been little discussion of how emergent change affects planned change in the organisational change literature beyond the acknowledgement that emergent change increases readiness

(Biedenbach and Söderholm, 2008) or paves the way (Burnes, 2004a) for deliberate/planned change. An exception is Blomme's (2012: 13) recent complexity-based conceptual article, which similarly conjectures that emergent change "*drives*" planned change by bringing about a "*shift in interaction patterns and behaviour*".

The complexity literature helps us understand that the emergent to planned change relationship represents a macro-to-micro dynamic; that broader patterns enable and constrain micro-level choices of individual change leaders. It also suggests that change leaders may have an active role to play in that macro-to-micro dynamic, through sensemaking of emerging organisational patterns (Lichtenstein and Plowman, 2009; Goldspink and Kay, 2010). This macro-to-micro dynamic in change leadership is an interesting area which is not yet well-understood from the perspective of change leaders.

Table 12 summarises these implications of self-organising change for change leaders.

Table 12: Implications of self-organising change

Characteristics	Implications for change leaders
<ul style="list-style-type: none"> ▪ Organisational change is a continuous, dynamic process of self-organisation ▪ No matter how 'well-planned' or 'loosely enabling' actions might be considered at a micro-level; organisational change is always emergent at a macro-level. ▪ Organisational change emerges from what real people in real organisational contexts say and do (there is no special force); so it is always planned at a micro-level. ▪ Emergent patterning constrains agent behaviour; i.e. emergent change affects planned change ▪ Perceived organisational outcomes may be similar to, or different from what those involved intended. ▪ Perceived organisational outcomes may represent continuity or change. ▪ Micro and macro co-evolve: micro-level local interaction is the source of macro-level global pattern; macro-level pattern enables and constrains micro-level interaction. 	<ul style="list-style-type: none"> ▪ There is no choice between planned and emergent change. ▪ Change leaders can make choices about their action and the basis for that action i.e. they can choose intervention strategies, images of change, ethical frameworks. ▪ Change leaders cannot choose/control organisational outcomes. ▪ Change leaders can act reflexively in processes of emergence by noticing and interpreting emerging organisational pattern and choosing how to respond.

3.7.1.3 Developing a theoretical framework

The initial CAS framework is updated with the integration of sensemaking and the TPB, in order to more fully consider the role of human agents, in Figure 7. The theories underpinning the framework are summarised in Table 13.

Figure 7: Change leadership in self-organising change

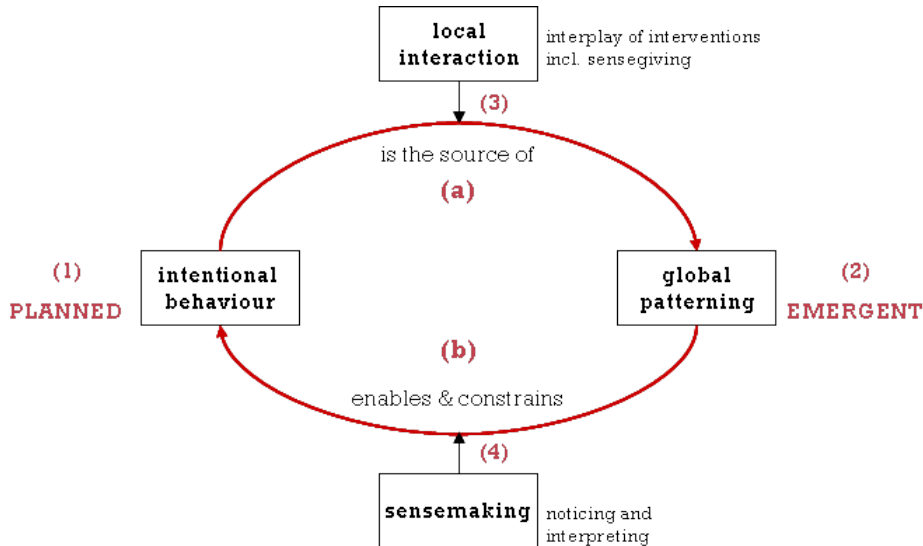


Figure 7 illustrates how organisational change is simultaneously planned at the micro-level (1) and emergent at the macro-level (2) through a reciprocal process of causation (a+b). This highlights that intentional behaviour is the source of global patterning (a), and that global patterning enables and constrains intentional behaviour (b). Thus there is a co-evolving relationship between intentional behaviour (of individuals) and global patterning across populations of people in organisations (a+b). Importantly this highlights that conceptualising organisational change as emergent at a macro-level does not imply a lack of micro-level intentionality.

The effects of intentional behaviour and global patterning on each other have a non-linear relationship due to mediating processes of local interaction (3) and sensemaking (4). The presence of mediating processes of local interaction and sensemaking means that it is not possible to predict or control outcomes from self-organisation at macro or micro-levels.

Local interaction: Generalised behavioural intentions are enacted in processes of local interaction, so that it is the *interplay* of enacted desires and intentions in complex responsive processes among interdependent people which constitutes global pattern (a). Local interaction in this framework is understood to include the range of micro-level interventions, including sensegiving, that change leaders and interdependent others make as they interact locally.

Sensemaking mediates how global patterning enables and constrains intentional behaviour by shaping and affecting beliefs in the TPB (b). Sensemaking is a selective (Weick, 1995), reflexive process (Stacey, 2007), conducted by human agents who have bounded rationality as they have only an ‘inside’ view of their part of the system, rather than an ‘outside’ view of the whole system (Merali and Allen, 2011). Due to agent micro-diversity, enacted in sensemaking, there is a non-linear relationship between global patterning and intentional behaviour.

Sensemaking is not confined to the macro→micro dynamic (b); local interaction also involves sensemaking. The important point is that sensemaking plays a key role in the macro→micro path in complex human systems.

Traditional views of leadership often foreground change leader *sense-giving* activities, such as communicating a change vision (e.g. Kotter, 1995). The theoretical framework presented here acknowledges the influence of *sense-giving* within processes of local interaction in the micro-to-macro path (a), and it foregrounds the important role of *sense-making* within the macro-to-micro path (b). Both sensemaking and sensegiving play a part in strategic change initiation (Gioia and Chittipeddi, 1991) and the leadership of emergence (Lichtenstein and Plowman, 2009).

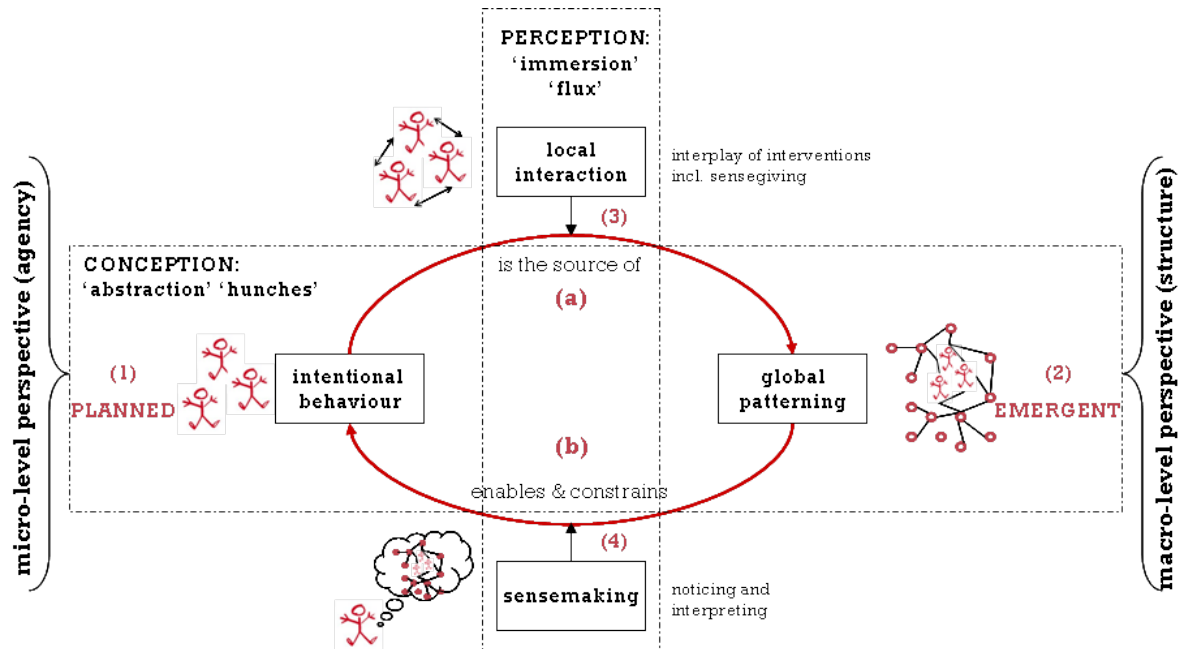
Table 13: Theoretical framework of self-organising change

Component	Key theories
(1) Intentional behaviour	Theory of Planned Behaviour (Ajzen, 1991)
(2) Global patterning	Emergence, from CAS (e.g. Kauffman, 1993; Holland, 1995; Goldstein, 1999)
(3) Local interaction	Complex responsive processes (Stacey, 2001)
(4) Sensemaking	Sensemaking (Weick, 1995)
(a/b) Reciprocal causation	Co-evolution (Kauffman, 1993) Action theory in complex systems (Juarrero, 2000) Reflexive emergence (Goldspink and Kay, 2010)

Perspectives on self-organisation

Figure 7 encapsulates multiple perspectives on self-organising change, elaborated below:

Figure 8: Perspectives on self-organising change



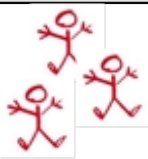
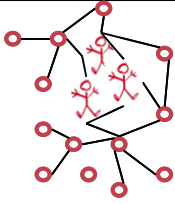
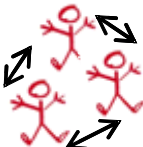
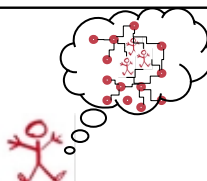
The framework of self-organising change can be viewed using Stacey's (2010) analytical distinction between 'immersion in' and 'abstraction from' lived experience. The *vertical dimension* emphasises the ongoing flux (Weick, 2011) of lived experience in which we are immersed (Stacey, 2010). Separating local interaction and sensemaking within the framework helps focus explicit attention on both micro→macro and macro→micro dynamics with the process of self-organising change. Yet, local interaction and sensemaking are not distinct domains of human activity, linked together in a temporal cycle, but are intertwined aspects of lived experience. When we are immersed in the ongoing flux of our working lives, both sensemaking and sensegiving behaviours contribute to emergent organisational order (Lichtenstein and Plowman, 2009).

The *horizontal dimension* emphasises conceptual hunches (Weick, 2011) and abstractions from that lived experience (Stacey, 2010). Micro and macro represent alternative perspectives that a participant/observer may take on a complex system. The scale at which an observer views a complex system, the "*graining' of description*", influences the characteristics noticed and the interpretations made (Gershenson and Heylighen, 2003). Figure 8 suggests that take a micro-level perspective foregrounds human agency, while the macro-level highlights structural pattern.

The addition of pictograms simplifies and conveys the essence of a concept graphically by making particular information salient (Soares et al., 2012). Such imagery can provide visual

metaphors, capturing paradoxical aspects of self-organising change and stimulating creative thinking (McKenzie and van Winkelen, 2011). Working as a heuristic device, the pictograms in Figure 8 conceptualise the involvement of people in the process of self-organisation within each of the four main components of the framework. The pictograms (detailed in Table 14) illustrate how different conceptual boundaries provide alternative perspectives on a single process of self-organisation. Together they form a visual family, with each pictogram highlighting different degrees of detail in the process, facilitating the “*zooming in and out*” to connect individuals and collectivities that Ibarra et al (2005) refer to. Each perspective is partial; illuminating and obscuring (Morgan, 1997) particular aspects of self-organisation.

Table 14: Perspectives on people in self-organising change

Pictogram	Component	Emphasis	Description
	(1) Intentional behaviour	Individual	Distinct, agentic selves
	(2) Global patterning	Organisational	Structural patterns of interaction in a population of networked agents
	(3) Local interaction	Interpersonal	Local connectivity/interdependence between agents
	(4) Sensemaking	Intrapersonal	Conception of structural patterns

3.7.2 What we don't yet know: the need for an exploratory study

The framework of self-organising change, developed above, positions the macro-to-micro as an active, evolving, dynamic in change leadership (b). It shows that global patterning evolves through change, and posits an active sensemaking role for change leaders. It is an interesting aspect of change leadership which has been largely overlooked in mainstream change leadership research. Change leadership has been largely concerned with the micro-to-macro dynamic ((a) in the framework); considering how change leaders' intentional behaviour can be channelled to

create global patterns called ‘organisational change’. The macro-to-micro, if it has been considered at all, has tended to be treated as ‘context’ within which change leaders act. This underplays the evolving nature of global patterning, and the active sensemaking role of change leaders in enacting that patterning.

In the framework of self-organising change, the macro-to-micro dynamic posits a radically different role for change leaders as reflexive agents in self-organising change. Yet it is an aspect of change leadership that we currently know little about. That role is one where:

*“Agents **notice** patterns that arise as they interact with others and **distinguish** those patterns in language. For example, a reflexive agent can notice an emergent pattern of social behaviour and explicitly denote it as a ‘norm’. While this denotation may be idiosyncratic (i.e. based on the necessarily limited perception of the individual agent), the agent can nonetheless act on the basis of this denotation. Once distinguished and reified within a domain, agents can decide (on the basis of rational as well as value based or emotional criteria) how to **respond**— they can choose to ignore the ‘norm’ or to behave in ways they believe will limit the reoccurrence of the behaviors that are outside the agreed/ shared patterns of the group”* (Goldspink and Kay, 2010: 56, emphases added).

Based on Goldspink and Kay’s contention human actors can *notice* emerging patterns, *interpret* them in language and choose how to *respond*, the empirical study explores new ground in change leadership research by asking:

3. What emerging organisational patterns and ‘transitory outcomes’ do change leaders notice, interpret and respond to as they pursue change in organisations?
 - a. What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?
 - b. How do change leaders respond to emerging organisational patterns and transitory outcomes as they pursue change in organisations?

While there are several streams of work to build on, none directly covers this territory:

The organisational change literature offers useful insights into the manifestation of emergent change in organisations, but it says little about patterns of emergent change from the perspective of purposeful change leaders.

Complexity leadership work highlights the importance of change leader sensemaking in the leadership of emergence. However many of the studies are conceptual (e.g. Marion and Uhl-Bien, 2001; Uhl-Bien et al., 2007; Uhl-Bien and Marion, 2009), and several of the empirical studies are retrospective (e.g. Chiles et al., 2004; Plowman et al., 2007b;

Lichtenstein and Plowman, 2009), so there is little empirical focus on the *experience* of change leader sensemaking.

Contextual leadership work focuses on the macro-to-micro dynamic in considering contextual influences on leadership (e.g. Osborn et al., 2002; Osborn and Hunt, 2007; Osborn and Marion, 2009). However by treating context as sets of conditions, it fails to consider the influence of more dynamic emerging patterns and outcomes which may only be transitory.

Stacey (2012: 107) suggests that experts utilise practical judgement to “*recognize emerging patterns of interaction that they and other people are creating*”, but does not consider the nature of those emerging global patterns or their effect on those pursuing change.

Work on middle manager sensemaking in change focuses on the experience of change recipients (e.g. Balogun and Johnson, 2005; Lüscher and Lewis, 2008; Beck and Plowman, 2009), but does not consider what sense change leaders make of emerging global pattern.

Reflexive emergence (Goldspink and Kay, 2010) offers a new conceptualisation of emergence in human systems, but so far lacks an empirical basis in human organisations.

The empirical study considers the content, challenges and impact of change leader sensemaking of emerging patterns, which may be transitory, within a particular organisational context.

Chapter 4: Research Methodology

“To have any chance of even beginning to understand complex systems we must approach them from many directions – we must take a pluralistic stance”

(Richardson, 2008: 17)

4.1 Overview

Chapter 4 outlines the research methodology for this study from philosophical orientation to operational methods.

Section 4.2 considers research philosophy. It argues that a realist ontology combined with the pluralistic stance, suggested by Richardson (above), is appropriate for studies adopting a complexity theory lens. Ontological realism combined with methodological pluralism does not mean ‘anything goes’. It means choosing and appreciating the limitations of any epistemological framework. This study adopts a social constructionist epistemology, consistent with interpretive studies of sensemaking, in order to understand how change leaders make sense of emerging organisational patterns. Yet it retains a realist thread in understanding idiosyncratic interpretations as socially-mediated perspectives on a complex social reality, rather than indicating multiple realities.

Section 4.3 outlines the research strategy adopted and explains why a longitudinal, qualitative, multi-level, case study strategy has been selected. It argues that this strategy is appropriate for the topic, research questions, the philosophical stance, the complexity lens and the dual theoretical/practical contributions expected from a DBA.

Section 4.4 then outlines how this particular case study has been designed and considers its limitations. It discusses issues of case design and case selection which included a pilot phase. It also highlights how the research design evolved in response to real-time opportunities and challenges.

Sections 4.5 and 4.6 summarise the methods used in data collection and analysis (respectively) and explain why they were chosen. They highlight the multiple perspectives employed to shed light on the research questions.

4.2 Research philosophy

While the philosophical orientation of this research is considered here, its location reflects convention in writing doctoral dissertations, rather than a natural sequence of thought¹⁰. My philosophical orientation has already significantly shaped the previous chapters: influencing my choice of research problem and theoretical lens; my framing of research questions; and my selection and evaluation of the literature.

Complexity underpins the philosophical stance taken, as it has in previous doctoral theses (e.g. Houchin, 2003; Bromley, 2010). Complexity theory is now acknowledged as “*presenting a new scientific ontology*” (Blaikie, 2009: 104).

4.2.1 Realist ontology

Easterby-Smith et al (2008) suggest that the major ontological debate in the natural sciences is between realism and relativism. In the social sciences, the competing positions might be understood as modernism and postmodernism (Boisot and McKelvey, 2010). Since science itself is arguably a social process (Kuhn, 1962), a key distinction between those two positions is whether the ‘truth’ of scientific laws is understood as being independent from the process of discovery or not. While “*realists come in several varieties*” including traditional (also called naïve or empirical realists, Fleetwood, 2005) and critical realists (Easterby-Smith et al., 2008: 61), simply put, realists assert that there is something to know about over and above the knowing process itself (Burgoyne, 2011).

Complexity theories originated in the natural sciences, underpinned by the traditional realism of “*modernism and its methodological handmaiden, positivism*” (Boisot and McKelvey, 2010: 418). Therefore natural science CAS research (e.g. Kauffman, 1993; 1995a; Holland, 1995) can be understood, essentially, as a realist endeavour. Utilising CAS as a theoretical frame thus imports something of a realist mindset, and “*once a little bit of realism is let in, you get the whole lot*” (Burgoyne, 2011: 344).

Having accepted that there is something to know about over and above our knowledge of it, it is helpful to consider what that might be. Therein lies a further ontological distinction between the traditional modernist “*atomistic ontology, one that takes the world as constituted by a collection of objects*” and a more postmodern “*connectionist ontology that takes the world’s fundamental constituents to be relationships*” (Boisot and McKelvey, 2010: 416). With its focus on connectivity and interdependence between agents (Mitleton-Kelly, 2003), CAS emphasises relationships and thus a connectionist ontology.

Cilliers explains that emergent behaviour arises from those connections:

¹⁰ This echoes the familiar approach of scientific method, similar to the observation that qualitative articles often ‘mimic’ the structure of quantitative articles (Pratt, 2009)

*“Complex systems display behaviour that results from the **interaction** between components and not from characteristics inherent to the components themselves”* (Cilliers, 2005a: 257 original emphasis).

However complexity makes another important assumption. It sees the world as a *“non-stationary situation of permanent adaptation and change”* (Allen, 2010: 19). It is this focus on dynamics, and a *“transformational teleology”* where potential futures are transformed in the present (Stacey et al., 2000), which Allen suggests is the *“real revolution”* of complexity science.

Summing up, CAS implicitly imports a realist ontology, which focuses on dynamic relationships (rather than static things), into this study of organisational change. However the position taken here is not that of traditional realists who assume direct empirical access to an external, objective reality. Rather, it is closer to the critical realism of Bhaskar and Archer (Bhaskar, 1975; Archer et al., 1998). While they insist that social reality exists separately to human knowing of it (it is intransitive), they accept human agency in bringing social reality about and also that knowledge of that social reality is socially mediated; humans do not and cannot have direct access to it. The ontological position taken in this research is that a complex social reality exists beyond the extent of human knowledge of it, although it does not exist independently of human action.

4.2.2 Pluralist epistemology

The epistemological concern is how we can know about that complex, dynamic, world of relationships. This is particularly important to address because, as Cilliers (1998; 2005a) explains, we can never know complex things completely. Complex systems are incompressible (Cilliers, 1998: 9); so *“a complex system cannot be reduced to a simple one if it wasn’t simple... to start off with”* as too much essential relational information gets lost in the process. Their non-linearity means that complex systems cannot be effectively represented by neat algorithms, and outliers cannot be safely ignored. This is not a comment on methods; even qualitative ‘thick description’ (Geertz, 1973) necessarily leaves things out.

However it does mean that there are limits to what we can know about complex systems, since any knowledge framework we choose is partial (Cilliers, 2005; Allen et al., 2007; Richardson, 2008). As these quotations illustrate, there is an unavoidable paradox here; since *any* epistemological stance takes a position, the knowledge it generates about complex systems is limited:

“The underlying paradox is that knowledge of any particular discipline will necessarily imply a ‘lack of knowledge’ of other aspects... and so actions based on any particular domain of knowledge, although seemingly rational and consistent, will necessarily be inadequate” (Allen et al., 2007: 407).

*“We cannot have complete knowledge of complex systems; we can only have knowledge in terms of a certain framework. There is no stepping outside of complexity (we are finite beings), thus there is no framework for frameworks. We **choose** our frameworks. This choice need not be arbitrary in any way, but it does mean that the status of the framework (and the framework itself) will have to be continually revised”* (Cilliers, 2005a: 258-9; original emphasis).

This has three important implications. First, critical reflection: since the frameworks we choose limit what we can know about complex systems, Cilliers implies that choice should be made purposefully. With complexity research, however, it is not enough to make that considered choice at the outset. It also requires a degree of ongoing reflexivity; revisiting what any chosen position may illuminate, and also what it might obscure, as claims to knowledge are developed. (Chapter 8 includes critical methodological reflections on this study).

The second implication is pluralism. It is possible to have multiple descriptions of complex systems as *“different descriptions will decompose the system in different ways”* (Cilliers, 2005a: 257) and none will perfectly represent it as *“there is no accurate... representation of the system which is simpler than the system itself”* (Cilliers, 2005b: 13). Richardson (2008: 17) therefore concludes that *“to have any chance of even beginning to understand complex systems we must approach them from many directions - we must take a pluralistic stance”*. Rather than privileging one epistemological framework or model over another, the critical pluralism he describes is concerned with understanding the limits of those frameworks and using critical reflection to ground them in an evolving reality. He differentiates that from an *“anything goes relativism”*, because, although he proposes that most methods are capable of shedding some light on certain aspects of complex system behaviour, he argues that *“not every perspective is equally valid in any given context”* (Richardson, 2008: 21). Once again, this underlines the need for purposeful and reflexive choice of knowledge frameworks.

Rather than arguing about the relative merits of incommensurable positions (e.g. positivism’s pursuit of absolute truths and social constructionism’s insistence on the subjectivity of truth claims), the complexity view expounded here accepts that various epistemological positions can generate useful perspectives on complex systems. This has led some to propose that complexity science itself offers an *“integrative paradigm”* (Allen et al., 2007) or a *“bridge”* (Boisot and McKelvey, 2010) which reframes competing positions as each offering differing, yet limited, perspectives. ‘Complexity thinking’ thus requires open-mindedness (Richardson, 2008) and *“epistemic flexibility and tolerance”* (Boisot and McKelvey, 2010: 427) by researchers and reviewers.

The third implication is that knowledge claims should be *“modest”*, having some qualification attached, since knowledge of complex systems is always provisional (Cilliers, 2005a). That is not

to say that useful knowledge of complex systems is not possible, just that it is always approximate, so we should *“expect to be wrong (or at least not completely right)”* (Richardson, 2008: 25).

In the vein of making modest knowledge claims, Boisot and McKelvey (2010: 426) seek inferential knowledge which offers anticipation, rather than prediction. Anticipation, they suggest, tends to be expressed in loose narrative form and achieves less precision than prediction. However what anticipation loses in precision, it makes up for in its fluidity to changing conditions. Like prediction, anticipation draws on evidence for its justification and shapes our expectations and responses. The authors propose that; *“anticipation is ‘softer’ than prediction, bridging between the strong predictive claims... of classical physics and the unpredictable, often seemingly chaotic press of singular events confronting us daily at the human scale”* (Boisot and McKelvey, 2010: 426). Although *“when dealing with complexity, modest positions are inescapable. This does not imply that they should be relative, vague or self-contradictory”* (Cilliers, 2005a: 263).

Summing up, taking a complexity perspective implies that we should be critically reflective and pluralistic in our epistemological choices and modest about the resulting knowledge claims.

Although complexity does not dictate a particular epistemological position, the empirical research question does. This study takes an interpretive stance to consider change leader sensemaking of emerging patterns. Sensemaking is interpretive work (Weick, 2012) and an interpretive perspective has been taken in previous studies of sensemaking during organisational change (e.g. Gioia and Chittipeddi, 1991; Balogun and Johnson, 2004; Clark et al., 2010). Interpretivism is based in a social constructionist epistemology which considers that *“‘reality’ is not objective and exterior, but is socially constructed and given meaning through people”* (Easterby-Smith et al., 2008: 58). It is an appropriate choice for studying change processes and understanding people’s meanings (Easterby-Smith et al., 2008) as they interpret and reinterpret their world (Blaikie, 2007). As Sayer (2000: 17) contends; *“meaning has to be understood, it cannot be measured or counted”*.

However, this study retains its realist ontological thread in understanding idiosyncratic interpretations as partial, socially-mediated perspectives on a complex social reality, rather than indicating multiple realities. Interpretations are partial because we can never know complex things completely, they are socially-mediated because we cannot stand outside our interpretive frameworks (Cilliers, 2005a). The purpose here is not simply to understand change leaders’ interpretations, but to consider their effect in reflexive emergence. Goldspink and Kay’s (2010) reflexive emergence is underpinned by critical realism. While accepting the importance of language and meaning making, critical realism insists that there is also a non-discursive dimension to organisational life; the practical context within which interpretive practices occur (Sayer, 2000).

4.2.3 Methodology of multiple perspectives

Taking a complexity perspective highlights the need for multiple, even competing perspectives, to illuminate a complex reality. This notion of multiple perspectives is different to the post-modern notion of multiple, socially-constructed realities. The proverbial blind men giving conflicting accounts of an elephant illustrates the point¹¹. Consistent with a realist ontology, I am suggesting that there *is* an elephant to know about, and that, in complex systems, everyone is a metaphorical blind man. Since no agent has sight of the whole system, any observation must be partial. Further, in complex social systems, the proverbial ‘elephant’ is not directly accessible empirically. Like other socially real phenomena, it lacks materiality and is dependent on human activity for its existence (Fleetwood, 2005). We cannot stand back and look at it. We are immersed in it (Stacey, 2010).

Seeking multiple perspectives has implications for method and methodology. An appropriate research strategy should be able to accommodate multiple methods (i.e. individual techniques for data collection/analysis, Easterby-Smith et al., 2008), even embrace mixed methodologies (a “combination of techniques used to enquire into a specific situation”, Easterby-Smith et al., 2008: 60). Greene’s (2007: xii) stance on mixed methods as a “*way of thinking [which] involves an openness to multiple ways of seeing and hearing, multiple ways of making sense of the social world*” echoes the pluralism of ‘complexity thinking’ described earlier by Allen et al (2007) and Richardson (2008).

Multiple perspectives are not unique to complexity. Multiple frameworks or images have been used in organisation studies (e.g. Burrell and Morgan, 1979; Morgan, 1997) and in studying organisational change and development (Van De Ven and Poole, 1995; 2005). However, seeking multiple perspectives is not just about mixing methods/methodologies. The complexity underpinnings mean retaining multiple subjectivities, rather than averaging them out. This is particularly important in organisational change research, since micro-diversity is a source of system change:

“Complex systems thinking offers us a new, integrative paradigm, in which we retain the fact of multiple subjectivities, and of differing perceptions and views, and indeed see this as part of the complexity, and a source of creative interaction and of innovation and change” (Allen et al., 2007: 407).

This study incorporates multiple perspectives in several ways. It offers multiple temporal perspectives with a two-phase research design; the embedded case offers multiple levels of analysis; and it uses multiple methods of data collection and analysis. It also retains multiple

¹¹ In various versions of the tale, a group of blind men (or men in the dark) touch an elephant to learn what it is like. Each one feels a different part, but only one part, such as the side or the tusk. They then compare notes and learn that they are in complete disagreement. http://en.wikipedia.org/wiki/Blind_men_and_an_elephant (accessed 13.12.2011)

subjectivities by using a methodology which is sensitive to the social constructions of research participants.

4.2.4 Other influences

Having set out my philosophical stall based on complexity, it is helpful to briefly consider two other influences on the approach taken.

Critical Realism (CR)

There is a close correspondence between CR and the complexity perspective outlined above. Some bring the two perspectives together (e.g. Blaikie, 2009; Burgoyne, 2010; Goldspink and Kay, 2010); Harvey (2009) even talks about ‘complex realism’. CR’s social take on realism offers useful insights for those considering complexity in the social world. For example, CR’s notion of ‘causal efficacy’ helps us understand that non-material, but ‘socially real’ structures can have an effect on behaviour (Fleetwood, 2005). This helps explain why emergent macro-level patterns affect micro-level behaviour (see Chapter 3).

Also, the mutual ‘teacher-learner relationship’ between researcher and research participants in CR (Pawson and Tilley, 1997) helps complexity researchers to conceptualise their role in a way that values multiple perspectives; the more general concerns of researchers and the more specific ones of research participants. It offers a more nuanced understanding than extreme positivism’s overstatement of the role of researcher as ‘objective expert’, and extreme social constructionism’s reduction of that role to a conduit of subjective understanding.

Having noted the close correspondence between CR and complexity, it is important not to use the faulty logic of circular reasoning in using one to attempt to ‘prove’ the other. Therefore, the position taken in this thesis follows the complexity perspective already argued, and borrows ideas which CR has worked out more fully in the social scientific domain to elaborate my position. This is not unique. Blaikie (2009: 104) notes that complexity draws heavily on CR’s ontological assumptions.

However, this is not a CR study. CR’s concern is ontological: to conjecture combinations of causal mechanisms (existing in the ‘real’ domain and not accessible to empirical enquiry), which ‘fire’ under particular contextual conditions and produce event regularities in their outcomes (Pawson and Tilley, 1997). My concern is more epistemological: to understand how change leaders work as reflexive agents in emergent processes of organisational change.

In considering CR's concerns as more ontological, and my research question as rather more epistemological, I am contrasting ontological and epistemological concerns; artificially separating them to make an argument about my choice of frameworks for this study. Yet, ontology and epistemology are not separate and distinct. Perhaps, at most, they may be considered as different sides of the same coin. Even in using them to make a contrast, I have served to illustrate the connectedness of ontological and epistemological concerns. I have highlighted their mutual relationship by naming them as parts in a 'story' within the ultimate unity of mind and nature (Bateson, 1979). Blaikie (2007: 13) acknowledges the difficulty of discussing ontological and epistemological assumptions separately when; *"assertions about what constitute social phenomena have implications for the way in which it is possible to gain knowledge of them. And the reverse is also true"*. As Stacey (2010: 110) explains, we are confronted with the paradox where *"there is no meaning without abstraction and nothing for meaning to be about without immersion"*.

Complex Responsive Processes (CRP)

Stacey and Griffin (2005) have developed a complexity approach for researching organisations, which focuses on taking experience seriously. Using this methodology, a researcher considers his/her own practice in organisations within a community of researchers who participate in that process; thus research participants are fellow researchers. Although my research adopts several of Stacey's ideas (i.e. conceptualising the micro-level as patterns of gesture and response in local interaction, and the macro-level as global pattern), my purpose is not to research my own practice, but to consider the experience of change leaders, so it is not appropriate to adopt CRP's methodology.

CRP is influenced by American pragmatism's concern with practical usefulness, i.e. what works 'for me' and 'for us' (Stacey and Griffin, 2005). In Stacey's interpretation, reality is *"the experienced reality of people cooperating and conflicting with each other, so perpetually negotiating what is real 'for them'"* (Stacey and Griffin, 2005: 20). Just as CAS implicitly imports a realist ontology into organisation studies, CRP imports pragmatic sentiments into my study. Most notable is pragmatism's concern with people's every-day lived experience and their lived realities (Locke, 2001); i.e. what's real 'for them', which is central to my empirical research question.

Intertwining perspectives

The complexity perspective outlined in this thesis, CR and pragmatism hold compatible assumptions in the following ways. (1) They are all methodologically pluralist in their willingness to use and combine different ways of knowing (pragmatism is seen as the epistemological partner for mixed methods research, Johnson and Onwuegbuzie, 2004; Morgan, 2007). (2) They all emphasise human agency in creating macro-level: global patterns (complexity); social structures

(CR); meaning frameworks (pragmatism). However CR and complexity make a stronger macro-to-micro link. (3) They all hold that knowledge is tentative and provisional: because complex systems are incompressible and evolving (complexity); because causal mechanisms are not empirically accessible (CR); because people perpetually negotiate reality (pragmatism). Therefore they each take a position between the poles of positivism, where truth is absolute, and postmodernism, where there is no means to judge between truth claims.

However, complexity, CR and pragmatism have differing concerns. While pragmatism is concerned with *what* works, CR's 'depth ontology' (Blaikie, 2007) is concerned with understanding *why* it works (by conjecturing mechanisms which fire in particular contexts to create particular outcome regularities). Complexity, however, starts with a view of *how* CAS work; then borrows from social science philosophies with similar philosophical assumptions to develop understanding of how human CAS work.

4.3 Research strategy

Consistent with the philosophy described, this research employs a longitudinal, qualitative, multi-level, case study strategy. This section explains why that strategy was selected.

4.3.1 Case study

Case studies are widely and increasingly being used in organisational research (Hartley, 2004: 647). However, utilising case studies is a design choice within research, rather than an ideological commitment (Platt, 1992; Yin, 2009). It is argued here that case study method¹² is appropriate for the topic of organisational change; the complexity lens; the research questions; and the goals of DBA research.

The topic of this study is organisational change; a complex process embedded in a specific organisational context. Since case study method enables the study of complex social phenomena in their real-life context without creating boundaries between the two (Yin, 2009), it is an appropriate design choice. Further, case studies enable researchers to "*deal with operational links needing to be traced over time*" (Yin, 2009: 9). This is essential in organisational change research, where the time ordering of events is critical (Poole et al., 2000; Van de Ven and Poole, 2005). Case study method therefore suits the topic of this study: the complex, contextual and time-ordered process of organisational change. Indeed there is a tradition of utilising case studies for organisational change research (e.g. Brown and Eisenhardt, 1997; Balogun and Johnson, 2004; Tsoukas and Papoulias, 2005; Jian, 2007; Clark et al., 2010).

¹² Yin (2009) argues that case study research is a complete method, not just an adjunct to experiments or a data collection technique. Eisenhardt (1989) calls it a research strategy.

The theoretical lens comes from CAS; systems which are incompressible, non-linear and sensitive to initial conditions. Thus it makes little sense to adopt any research strategy which limits the number of variables studied, or makes *a priori* decisions about their likely importance based on historical data, or data from other organisational contexts. The holistic nature of case studies (Yin, 2009) makes them “*uniquely suited*” to research from a complexity perspective, as they allow integrated systems to be studied (Anderson et al., 2005).

A key feature of case studies is their use of multiple sources of evidence and ability to embrace both qualitative and quantitative methodologies (Yin, 2009). Thus cases accommodate the multiple perspectives discussed earlier. The bounded nature of cases, which Stake (2006: 1) suggests makes them “*rather special*”, provides a particularly useful way to focus multiple perspectives. Without the conceptual container provided by a specific case, a study of organisational change from multiple perspectives would be so wide-ranging, it would be virtually impossible to put into operation.

The iterative nature of case study research (Yin, 2009), which allows researchers to revisit the case to collect more data as a system adapts, also suits complexity studies. Thus a detailed research design, while planned up front, can be adapted once research is underway to respond to more emergent opportunities and outcomes. Since this study collects real-time data on emerging organisational change (see 4.3.2), that flexibility is important. The evolution of this research design is discussed in 4.4.6.

Several empirical studies have employed case studies to consider organisational change from a complexity perspective (e.g. Brown and Eisenhardt, 1997; Macintosh and MacLean, 1999; Houchin and MacLean, 2005; McMillan and Carlisle, 2007; Plowman et al., 2007a) and to explore complexity leadership (e.g. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007b). Proponents of case studies in this context suggest that they enable “*a detailed look at the nonlinear dynamics at work in organizations undergoing continuous change*” (Plowman et al., 2007a: 516) and offer “*rich, dynamic, contextual and longitudinal data that focus on processes (mechanisms) rather than static, de-contextualized variables*” (Uhl-Bien and Marion, 2009: 647).

Case studies are organised around issues (“complex, situated and problematic relationships”, Stake, 2005: 448) and enquire into contemporary events (Yin, 2009). This study explores the complex issue of change leadership in self-organising systems; and asks specifically what emerging organisational patterns and ‘transitory outcomes’ change leaders notice, interpret and

respond to as they pursue change in organisations. This exploratory research question also lends itself to case study research.

The DBA demands a theoretical contribution and a contribution to practice. As case studies enable in-depth understanding from rich, contextual data, they can achieve both goals. They facilitate theory building from rich empirical evidence (Eisenhardt, 1989). Their ability to convey context helps make research more interesting (Bartunek et al., 2006b) and implications for practice more useful to practitioners (Bartunek and Rynes, 2010).

4.3.2 Longitudinal strategy

Longitudinal research designs are an example of qualitative best-practice (Bluhm et al., 2011) and are particularly appropriate for change research. Put simply, organisational change is a perceived difference over time (Van De Ven and Sun, 2011). In organisational change research, therefore, some element of longitudinal data collection is necessary; particularly in studies of organisational change and development processes (Van de Ven and Huber, 1990; Leonard-Barton, 1990; Pettigrew, 1990; Pettigrew et al., 2001). Consequently, this study utilises a longitudinal strategy: *“studying the same single case at two or more different points in time”* (Yin, 2009: 49).

Complexity-led case studies of organisational change have collected longitudinal data retrospectively (e.g. Chiles et al., 2004; Plowman et al., 2007a) and real-time (e.g. Lichtenstein, 2000; Houchin and MacLean, 2005). While each approach has advantages and limitations (see Table 15), it is not an either/or choice. Some organisational change researchers combine retrospective and real-time approaches to mitigate bias (Leonard-Barton, 1990; Eisenhardt and Graebner, 2007), or to extend the temporal context of the research (Pettigrew, 1990).

Table 15: Advantages/limitations of retrospective and real-time studies

	Retrospective	Real-time
Advantages	Pattern identification – recognition of overall patterns in process Informants focus on ‘significant’ events (Leonard-Barton, 1990)	Pattern evolution; microscopic examination of details of process (Leonard-Barton, 1990) Rich data on mechanisms/processes (Pettigrew, 1990)
Limitations	Participant perception/recall of less ‘important’ events (Leonard-Barton, 1990) Retrospective sensemaking and impression management (Eisenhardt and Graebner, 2007)	Becoming too involved, developing unconscious biases Difficult to identify critical data in the midst of the research (Leonard-Barton, 1990)

This research takes a real-time approach in following the organisational change process as it unfolds. With a real-time longitudinal approach “the *focus is on changing, catching reality in flight*” (Pettigrew, 1990: 268) which suits change process research. A real-time approach is also helpful for research into complex systems since non-linearity means that small events (which may be more sensitive to filtering in purely retrospective accounts) can have disproportionate consequences. This real-time strategy is complemented with retrospective data collection to extend the temporal context of the case. This usefully provides detailed contextual data which enables comparison across the two data collection Phases (see 4.4.5).

4.3.3 Qualitative orientation

While there is a strong tradition of qualitative approaches in organisational change and complexity leadership research, what makes a qualitative perspective particularly appropriate for this study is the research question. The research question for this study seeks to understand the perspective of change leaders; in particular what emerging patterns they notice and interpret, and how they respond to those patterns. This research question, like other sensemaking questions, is an essentially qualitative question and therefore demands a qualitative orientation.

Qualitative research is concerned with interpretation and meaning (Van Maanen, 1979b; Denzin and Lincoln, 2005; Stake, 2010) and “*the researcher is often the main research instrument*” (Stake, 2010: 15). While qualitative research is considered an umbrella term (Van Maanen, 1979b), with no commonly agreed definition (Cassell and Symon, 2004), Alvesson and Sköldbberg (2009: 7) highlight that an “*important distinguishing feature of qualitative methods is that they start from the perspective and actions of the subjects studied*”. This last point suggests that qualitative research is not just a collection of approaches or methods, but that it reflects a broader orientation which says something about the relationship of the researcher with the research. In that vein, this empirical

research takes a qualitative orientation, although it does not only utilise qualitative methods, as it includes social networks analysis.

A qualitative orientation is appropriate for exploring the process of organisational change. Importantly, qualitative approaches enable researchers to explore the *“interaction between context and action... in which the subjective interpretations of actors’ perceiving, learning and remembering help shape [change] process”* (Pettigrew et al., 2001: 699). Indeed scholarly studies of organisational identity and change have often used qualitative approaches (Van Maanen, 1998: 194).

Uhl-Bien and colleagues (Uhl-Bien et al., 2007; Uhl-Bien and Marion, 2009) also highlight the appropriateness of qualitative approaches for change and complexity leadership research. Indeed a number of case studies on complexity leadership have adopted a qualitative approach (e.g. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007b). Plowman et al (2007b: 345) explain that they took a qualitative approach in order *“to observe the complex interactions and behaviors that characterize complex adaptive systems and their leaders”*.

4.3.4 Multi-level strategy

Both organisational change and self-organisation operate across levels (Rousseau, 2011). As Chapter 3 argued, there is a co-evolving relationship between planned behaviour at a micro-level and macro-level emergent global patterning. Pettigrew (1990: 268) proposes *“embeddedness as a principal of method”* for organisational change research, enabling change to be studied in the context of changes at other levels of analysis. Any research strategy selected for this study should, therefore, enable multi-level research.

Case studies are particularly suited to multi-level research because embedded case designs enable attention to be paid to more than one unit of analysis (Yin, 2009). Typically this means a target case(s) with one or more embedded ‘subunits’ (Yin, 2009) or ‘mini-cases’ (Stake, 2006). Embedded designs enable and require attention to be paid to both levels of analysis. This study uses an embedded case design to study organisational change at two levels (discussed further in 4.5). The overall case is the organisation and the embedded units of analysis are individual change leaders within it. The organisational case privileges a macro-level perspective on organisational change. It helps to highlight what is emergent at a structural level from processes of local interaction. The embedded units of analysis (change leaders) privilege a micro-level perspective; highlighting individual plans and responses. From a complexity perspective both are important, as there is a co-evolving relationship between them.

While it might be tempting to specify a CAS as the overall case and agentic relationships as embedded cases, this poses difficulties. Stake (2005: 444) proposes that a case should be a *“functioning body”*, or a *“bounded system”*. Yet agency is not a functioning body, and a CAS may not be sufficiently bounded a system to study as a case. Therefore, as in this study, an organisation or an industry is typically selected as the case within which to study complex adaptive behaviour (e.g. Brown and Eisenhardt, 1997; Macintosh and MacLean, 1999; Lichtenstein, 2000; Chiles et al., 2004; Houchin and MacLean, 2005; Plowman et al., 2007a). The embedded design here adds perspective on complex adaptive behaviour within the overall case from the micro-level perspective of change leaders.

Further, the organisational case is also embedded in its institutional context. While Yin (2009: 46) makes a distinction between case and context, he points out that those boundaries may not be sharp. This may be particularly relevant from a complexity perspective, as *“important insights can be gleaned by studying the behaviour that occurs at and across the boundaries that define the case”* (Anderson et al., 2005: 674).

4.4 Research design

This study focuses on a single case study organisation over a two-year period. This section explains why the case was selected; how it was designed and piloted; it explains why and how the case design evolved; and discusses limitations of the research design.

4.4.1 Single case design

Case study is *“a research strategy which focuses on understanding the dynamics present within single settings”* (Eisenhardt, 1989: 534), however studies may be designed around single or multiple cases. Yin suggests it is a primary design distinction (2009: 47) and proposes five rationales for single case designs (see Table 16). Yet Stake (2005; 2006) does not strongly differentiate between single and multiple case designs. Rather, he emphasises learning from the particular, commenting; *“I see formally designed comparison as actually competing with learning about and from the particular case”* (Stake, 2005: 449). However, he explains that; *“The single case is meaningful, to some extent, in terms of other cases... So even when there is no attempt to be comparative, the single case is studied with attention to other cases”* (Stake, 2006: 4).

This study utilises a single case design. It does not use theoretical replication to compare it directly with other cases, but it *is* studied with attention to other cases. As a longitudinal case, it also fits with Yin’s fifth rationale for a single case.

Table 16: Rationales for single case designs

Rationale	Purpose
1. Critical case	To test a well-formulated theory
2. Extreme or unique case	To document and analyse rare cases
3. Representative or typical case	To capture circumstances/conditions of a commonplace situation
4. Revelatory case	To analyse a phenomenon previously inaccessible to social science enquiry
5. Longitudinal case	To study a single case at two or more points in time

Source: Yin (2009)

Importantly cases, whether single or multiple, are not intended to be representative of a population (Yin, 2003; Eisenhardt and Graebner, 2007; Siggelkow, 2007). Indeed *“to say something representative, you need to pick a different methodology”* (Siggelkow, 2007: 21). Rather, cases are selected for the likelihood that they will offer theoretical insight (Eisenhardt and Graebner, 2007). So, while positivists like Yin and Eisenhardt emphasise the benefits of multiple cases, it is not in service of representativeness.

An advantage of single case studies is their richness, yet they can be idiosyncratic and lead to the creation of complicated theories (Eisenhardt and Graebner, 2007). The challenge, as with all case studies, is to make it persuasive for readers by *“getting closer to constructs”* and allowing a reader to see the world in a new way (Siggelkow, 2007: 22). This research aims to get closer to constructs of self-organisation, planned and emergent change, through a particular case.

Despite notable exceptions (e.g. Brown and Eisenhardt, 1997; Lichtenstein, 2000), there is a tradition of using single case designs in complexity studies of organisational change (e.g. Chiles et al., 2004; Houchin and MacLean, 2005; Plowman et al., 2007a); and also in studies of sensemaking during organisational change (e.g. Balogun and Johnson, 2004; Lüscher and Lewis, 2008; Balogun et al., 2010).

4.4.2 Case selection

Educase (a pseudonym) is a higher education institution (HEI) in England, which was purposefully selected for this case study for two reasons. Firstly, it offered an opportunity to study organisational change. In exploratory conversations, four members of Educase reported experiencing significant organisational change and expected that to continue.

Part of Educase’s appeal was its ‘ordinariness’, as it contrasts with complexity studies which focused on more extraordinary cases of change (e.g. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007a). From the exploratory conversations, there was no suggestion of a

‘burning platform’, any immediate threat to survival, or that anything was ‘broken’. Despite the economic downturn, it was not in a sector, like banking, which, in 2009, was reeling from the credit crunch. It was not in a declining sector, like UK manufacturing, facing the challenges of low-cost imports in a globalising economy. Nor was it in a new, uncertain, or high growth sector, such as technology around the turn of the last century. There were no newcomers to the senior team intent on provoking a radical shake-up, but there was significant ambition among managers at Educase to continue to increase its reputation and global standing; which, they suggested, required further organisational change on a number of fronts.

While the notion of ordinariness links to Yin’s (2009) concept of the representative, typical, or average case (item 3 in Table 16), these terms are not used here since the terminology of Gaussian statistics is not appropriate for complex systems (Andriani and McKelvey, 2007). However, as Chapter 5 highlights, once underway, it became clear that the context for the case was not ordinary. Rather, it took place against the backdrop of what has been called the most radical shake up of the higher education (HE) system in England for decades¹³. Therefore Educase was embedded within a changing institutional context of third-order change (Tsoukas and Papoulias, 2005).

The second reason for selecting Educase was that it offered good access to key personnel; particularly important with a longitudinal design. During initial exploratory conversations, people showed interest in my research and a senior sponsor stepped forward. Practically, Educase’s physical proximity and its medium size (around 800 staff) made access across the whole case manageable within the resource constraints of a DBA¹⁴. For qualitative studies, however, since they seek to understand the world from the perspective of those studied (Pratt, 2009), physical access is just an entry threshold. Importantly, in those exploratory conversations I found that people were willing to talk with me about their experiences. That was an essential component of the access I needed, since *“at least two people create the reality of the interview situation”* (Denzin and Lincoln, 2005: 643).

It was important to me not to have a direct commercial relationship with the case organisation; thus avoiding the possibility of differing objectives, strategies or timescales compromising either the research or the commercial work. This is both a minor practical issue and a more major ethical consideration; particularly if what might be ‘best’ in terms of consulting practice and

¹³ According to press reports such as: The Independent (2011) ‘Universities to fight for places’ <http://www.independent.co.uk/news/education/education-news/universities-to-fight-for-places-2303798.html> (Accessed 13.11.2011)

¹⁴ In contrast, an in-depth, longitudinal case study of a large multi-national would not have been manageable with the available resources (one doctoral researcher and limited time)

research practice diverged. It is helpful to be transparent about my relationship with Educase, my *“position in the field”* (Anteby, 2008; in Pratt, 2009).

My relationship with Educase was an informal one. I had never studied there, nor worked in its professional sector, or in the HE sector. My connection was a social relationship with a former Educase employee, who invited me to join a research project (not funded by Educase) as a qualitative researcher. The inception of that project coincided with my search for an appropriate case. When I introduced myself to other team members and told them about my other research interests, one person (an employee at Educase) suggested ‘we’d make a great case for you with all the change we’ve had here!’¹⁵ Thus the seed was sown.

4.4.3 Embedded case selection

All the research participants are change leaders in a broad sense; identified by their colleagues through a process of snowball sampling as being highly active in organisational change (see 4.5.1). Those selected for the embedded cases are perceived as some of the most influential and active change leaders at Educase.

They were selected by triangulating qualitative interview data with results from a Social Network Analysis and change leader survey (see 4.5.5). Although the selection process allowed informal leaders to be identified, the most active and influential change leaders are all senior managers: three from the top team, one from the top 100. (More details in Chapter 6).

4.4.4 Pilot enquiry

A pilot enquiry was conducted at Educase. Its purpose was (1) to assess the feasibility of the research design; (2) to confirm the choice of Educase against the case selection criteria (an opportunity to study organisational change; good access to key personnel); and (3) to evaluate the Phase 1 interview protocol. It included an orientation interview¹⁶; three semi-structured interviews; naturally occurring data (formal and informal meetings); and archival data. The initial analysis open coded verbatim transcripts from the three semi-structured interviews.

The data confirmed that research participants were intent on pursuing organisational change (although defined differently by each) over the expected period of study. They proved to be accessible, and generous with their time. They showed interest in my research and were willing

¹⁵ Not a verbatim quote, but it illustrates the sentiment expressed

¹⁶ Its purpose was to (1) learn more about the change story at Educase; (2) learn more about Educase’s context and terminology to aid understanding of the data; (3) identify a senior management sponsor; and (4) identify potential interviewees

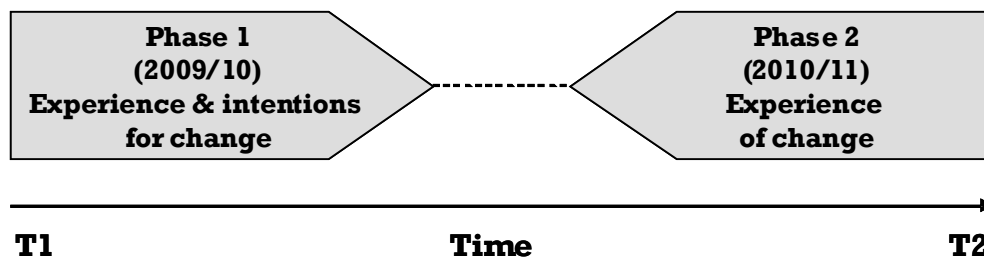
to talk about their experiences and intentions for organisational change. In addition to the interview data, participants' informal reflections over coffee, or when the recorder was off, also generated valuable data; particularly relating to informal change dynamics.

Thus Educase was confirmed as meeting the case selection criteria. After the pilot enquiry, minor changes were made to the interview protocol and greater emphasis was placed on collecting naturally occurring data.

4.4.5 Longitudinal design

The research was designed in two phases (see Figure 9). Since organisational change here is understood as continuous (Weick and Quinn, 1999), T1 and T2 do not represent start/end points of a change process or programme; they simply delineate the temporal boundaries of the case. Similarly the two phases, while broadly corresponding with two separate academic years, offer further temporal distinctions within the research. They do not represent different phases of change, but different phases of research.

Figure 9: Longitudinal design



Phase 1 sought to understand more about the experience and expectations for change at Educase. Although retrospective accounts may lack historical accuracy (discussed earlier), that selectivity is not a concern here as the purpose of looking backwards was simply to establish more about the context for change. Phase 1 also sought to develop a picture of how those seeking to effect some kind of organisational change were conceptualising change, the change content and the change process.

Phase 2 considered the experience of change at Educase and the subjective experience of individuals. It invited participants' reflections and, for those who had previously talked about pursuing an agenda for change, it enquired how that had played out. It was intended that the detailed focus and process for Phase 2 would be developed after Phase 1 was complete. As discussed in 4.4.6, this deliberately open design afforded the opportunity to focus on participants' sensemaking of emerging change in a dynamic environment.

Between Phases 1 and 2, there was no contact with Educase for four months. That temporal separation facilitated comparison between the two phases of research; making it easier to perceive contrasts, those noticeable differences which constitute organisational change (Van De Ven and Sun, 2011), and continuities. Rather than treating Phases 1 and 2 as if they were discrete, recognising the importance of the ‘space between’ (Bradbury and Lichtenstein, 2000) emphasises their relationship.

4.4.6 Evolving design

While the research design was planned up front, it evolved in two main ways once the research was underway in response to emerging opportunities and challenges.

The first way relates to data collection. As section 4.5 discusses, additional opportunities for data collection arose during the research process, primarily at Phase 1. These included: unstructured interviews; attending an all-staff presentation; and a social networks/change leader survey. At Phase 2, however, it was not possible to conduct the reflect-back workshop with senior managers. Specific reasons were not given, but the sensitivity of the emerging issues may have had a bearing on this decision.

The second area of emergent design was more significant. Throughout this study my research considered how change leaders pursue organisational change in self-organising systems i.e. where change is both planned at an individual level and emergent at a system level. However the unexpectedly dynamic context of the case, noted earlier, meant that emergent aspects of change foreshadowed the planned aspects. As the case progressed, I noticed that change leaders were focusing much more on dealing with what was emerging through the organisational change process. This is not surprising. Under far-from-equilibrium conditions, popularly referred to as the ‘edge of chaos’ (e.g. Beinhocker, 1997; Pascale, 1999); *“non-linear relationships prevail ... [and] systems do strange things”* (Prigogine and Stengers, 1984: xvi).

I therefore decided to further refine my research question prior to Phase 2 in order to both respond to and capitalise upon this opportunity to explore emerging organisational change. (Indeed, had this been a retrospective case, the ‘revelatory’ nature of Educase in enabling real-time research into emergent change would have ticked another of Yin’s (2009) boxes for single case designs). The original research question guiding Phase 1 data collection was ‘How do change leaders pursue organisational change in self-organising systems?’ This was retained as an orienting question for the research. However I introduced a more focused question for Phase 2: ‘What emerging organisational patterns and ‘transitory outcomes’ do change leaders notice,

interpret and respond to as they pursue change in organisations?’ This refined research question focuses more on reflexive emergence and the macro-to-micro path (b) in the theoretical framework developed in Chapter 3. The previous chapters reflect this refined research question.

The implications are that, instead of using Phases 1 and 2 to compare planned change with emergent organisational outcomes, it considers context (at Phase 1) to represent emergent global patterning and compares that with the emerging global patterning at Phase 2.

4.4.7 Limitations of research design

Having a single case design can either be considered a limitation or a feature of this study. From a positivist perspective, Yin (2009) emphasises the potential analytic benefits from having two or more cases, while Stake (2006), arguing as a social constructionist, explains that case study research is about learning from the particular. Section 4.4.1 argued why a single case design is an appropriate design choice here. Having made that choice, however, it does mean that taking multiple case perspectives (via cross-case comparison) cannot be used in theory development. A second potential limitation concerns the arms-length nature of the case. As I was not involved with Educase beyond this research, opportunities to collect naturally occurring data were limited. That meant that fewer fine-grained interactions were directly visible, but the trade-off was easier pattern recognition (see Table 15: Advantages/limitations of retrospective and real-time studies). Chapter 8 reflects on strengths and weaknesses of the research design in use.

4.5 Data collection

Typical of case studies, this research employs a combination of data collection methods (Hartley, 2004) to study change leaders in their organisational context. Yin (2009) suggests that using multiple data sources is a key principle of case method; allowing for data triangulation and helping researchers develop converging lines of enquiry. Employing multiple data collection methods may also help qualitative research to be more influential. Bluhm et al (2011) found that qualitative articles employing three or more data collection methods had a significantly greater influence on the field than single-method studies. Finally, using a combination of data collection methods enables a “*pluralistic stance*” to illuminate complex systems (Richardson, 2008).

Educase utilised multiple sources of data: 30 interviews; direct observation; participant observation; documentation about/from Educase; a ‘reflect-back’ workshop; a social networks/change leader survey (summarised in Table 17, detailed below). Semi-structured interviews formed the backbone of data collection for this study.

Table 17: Data collection overview

	Data collection method	Research participants
Phase 1 (2009/10)	12 semi-structured interviews (11 recorded/transcribed, 1 not recorded, notes taken)	People seen as having an active role to play in organisational change at Educase
	4 unstructured interviews (detailed notes taken)	Follow-ups with above participants/informal conversations with other informants
	Direct observation	All-staff address Informal observation
	Participant observation	Research project meetings/events
	Social networks/change leader survey	'Top 100' - 105 invited, 49 completed (47%)
	Reflect-back workshop	Top Management Team (10 attendees)
	Archival documentation	-
Phase 2 (2010/11)	10 semi-structured interviews (all recorded/transcribed)	Revisit Phase 1 interviewees
	4 unstructured interviews (detailed notes taken)	Other informants
	Observation	Informal observation
	Archival documentation	-

4.5.1 Interviews

Qualitative research interviews aim *“to see the research topic from the perspective of the interviewee, and to understand how and why they come to have this particular perspective”* (King, 2004: 11). It is an appropriate method here as I am interested in multiple subjectivities of research participants. At Phase 1, this entailed understanding each person’s experience and expectations for organisational change. At Phase 2; what emerging patterns and transitory outcomes they noticed and interpreted, and how they have responded to them as they pursued (or not) their priorities for organisational change.

Having identified an organisational sponsor and conducted an orientation interview, I used snowball sampling to identify other potential interviewees; asking each interviewee who they saw as playing an active role in organisational change at Educase. My purpose was to identify people who might have informal influence, rather than just positional power. Snowball sampling works well in identifying those who are part of networks that are confidential (Easterby-Smith et al., 2008) or tacit. After the first round of interviews with those named by the sponsor, I arranged interviews with those named at least twice. Others were added to offer a specific perspective (e.g. a more student-focused view).

The research design utilised semi-structured interviews. I created an interview protocol for each phase to create a broad structure for the interview (see Appendix B). Potential participants were given a 2-page summary of the planned research and a participation consent form to complete

(see Appendix C). Interviews were recorded, with participants' signed consent, and transcribed. One participant did not give consent for recording, so detailed notes were taken.

Since the opportunity arose to follow-up informally with some informants, and to have informal meetings with others, I included unstructured interviews which were not recorded. Instead I made detailed field notes (including verbatim comments) before adding my observations on themes and questions arising; a form of memoing (Glaser and Strauss, 1967). These notes were subsequently typed and included in the analysis.

Semi-structured interviews were conducted either in an office or a meeting room. Some of the unstructured interviews took place in the cafés; common practice at Educase.

Fifteen people took part in semi-structured or unstructured interviews. Six were members of the Top Management Team (TMT); a further seven were members of the top 100; and two were outside the top 100. Of the 15 informants, 12 took part in both Phase 1 and 2; enabling individuals' perceptions (Phase 1 expectations/Phase 2 experience), and my observations e.g. of their demeanour, to be compared.

I returned to Educase in January 2012 to interview a Phase 1 interviewee who was unavailable during Phase 2. He told a familiar story of late 2010 and early 2011. No new events or themes were indicated and the existing coding framework adequately captured the data. This suggested that theoretical saturation (Glaser and Strauss, 1967) had been achieved, whereby further sampling was unlikely to substantively add to the emerging organisational patterns identified¹⁷.

4.5.2 Naturally-occurring data

During Phase 1, I was involved in a qualitative research project considering students' experiences. Monthly meetings occurred at Educase premises; the project team comprised mostly current and former Educase employees; and there were often discussions about Educase. When these related to organisational change, its context, or particular change leaders, I made detailed notes. Another opportunity for observation arose when an interviewee invited me to attend the Chief Executive's annual address to staff. During this formal presentation, I made detailed notes, including verbatim comments and content from the slides. These notes were typed and analysed.

¹⁷ Adopting a complexity perspective, dubbed by Stacey (2010) the science of uncertainty, theoretical saturation needs to be somewhat tentative. The next person sampled might be a metaphorical 'black swan' and even tiny nuances can have disproportionate impacts in a complex world. However, while certainty is not achievable, some evidence of theoretical saturation is practically useful in setting boundaries for qualitative data collection and analysis.

Meetings at Educase sites offered opportunities for informal observation; mainly from the social spaces (reception/cafés) and around management offices. This enabled me to notice non-verbal data e.g. which research participants were visible; who they met; their body language, demeanour and energy; and their attire¹⁸. This informal data, while not recorded or analysed in detail, was nonetheless valuable and supported some of the verbal and social networks data. For example, I often noticed one particular manager in the social spaces, having several short, informal meetings with a variety of people. Even just energetically walking through, he would ‘catch’ people informally for a chat, or others would briefly stop him. (He turned out to be a highly-connected node in the social networks and frequently named in the change leader survey). Conversely, another manager, who wondered in our interview if he was visible enough to top management, I rarely saw outside our formal meetings.

4.5.3 Archival data

Archival data collected included data from Educase: notably data from Educase’s website, such as annual reports; plus some documents from the intranet; and documents which were shared by research participants. It also included external documentation about Educase and the sector, including: an HE Quality Assurance Agency institutional audit; a research report on Educase’s professional sector; the National Student Survey results; and press reports on HE sector changes.

Some of this textual data was used directly and coded; namely the Educase strategic plan and annual reports referencing organisational change. The remainder of the archival data was used to offer insights into the institutional context of Educase and to triangulate with interview and observation data.

4.5.4 Reflect-back workshop

A reflect-back workshop (Mitleton-Kelly, 2004; 2006) with ten members of the TMT was conducted at the end of Phase 1 to encourage participant reflection and to facilitate access to tacit data. The workshop design interspersed presentation of Phase 1 data with three ‘pause points’. At these points, I posed questions to workshop participants, inviting them to reflect on the data presented, and made detailed notes about their responses. Immediately afterwards I also noted how participants contributed; how they interacted with each other; and identified themes and questions arising. These field notes were then typed and analysed.

¹⁸ Important because attire was considered, by an informant, as symbolic of divisions within Educase

4.5.5 Social networks/change leader survey

Early qualitative data suggested (1) that change leaders use informal networks to develop and gain support for their ideas for change, and (2) that those active in organisational change are few in number and relatively powerful. A short survey was therefore developed to explore these findings and triangulate the qualitative data.

The agreed target was the top 100¹⁹. It was not selected to be representative, but because it delimited a population of appropriate size and composition. While there is no set size for social network analysis (SNA), larger populations make visualisation more difficult (Bilge et al., 2009). The top 100 is a meaningful population to study because (1) the horizontal slice may capture cross-organisational relationships, and (2) those in senior positions are likely to be more involved with organisational change than other horizontal groups.

The survey did not ask who knows who at Educase, since interview data already suggested that *“everybody knows everybody”*. Rather, it sought to explore particular aspects of the connectivity between people in the workplace (cf. Bilge et al., 2009); here relating to organisational change. Questions were asked to elicit directional ties; asking ‘who do you go to...’ in particular instances. While the survey did not ask about the strength or nature of those ties, giving five fields required qualitative judgement on who to name/omit. Respondents were not asked to rank people, but there is an implied ranking in the vertical arrangement of text boxes numbered i-v.

The survey contained ten questions: questions 1-5 asked about informal networks; questions 6-8 asked who was actively involved in organisational change; and questions 9-10 were demographic questions (see Appendix D). Following Bilge et al (2009), questions 1-8 had five free text fields for respondents to name up to five people in relation to each question. None of these questions was compulsory. Survey questions were reviewed by the research sponsor at Educase, an SNA specialist at the London School of Economics, and my two doctoral supervisors. Minor revisions were made. Four people (one from Educase, but outside the target group, and three outside Educase) completed the questionnaire online and provided feedback on content and usability.

Individual emails were sent to each of the 105 people in the target population on 25th June 2010 inviting them to complete the web-based survey. Survey Monkey was used as a platform due to the researcher’s experience of its robust performance in previous, more extensive, survey work. One week was allowed for completion and a closing date of 2nd July was given. A reminder was sent to those who had not responded on the morning of 2nd July. The survey was held open until 16th July 2010 to enable those who were away during the initial survey period to respond.

¹⁹ Target population was those in the top two grades (n=105). Names, grades and email addresses supplied by Educase’s HR department

Since social network surveys seek to identify who is connected with whom, respondents were asked to give their name. Reasons for this were clarified on the first page and the process was carefully designed to ensure confidentiality. Names of respondents and their social network contacts were replaced with a unique code before results were analysed and reported. The codes reflected the person's hierarchical level (part of the TMT; outside TMT but within the top 100; outside the top 100) and their functional department. Where this resulted in groups of less than ten, sub-groups were amalgamated. Therefore, the TMT was not subdivided by department and smaller departments were clustered together into a departmental category 'Other'.

Forty-nine people (47%) responded and included their name. A further 16 people responded, but did not include their name. Their responses were not included in the social networks, but any responses to questions 6-8 were analysed. Of the 49 respondents, 27 were male and 22 were female²⁰. Length of service ranged from 1-22 years; the mean=8 years, the median=6 years and the mode=5 years. Almost one third of respondents had been at Educase for 10 years or more.

4.6 Data Analysis

4.6.1 Analytic strategy

The analytic strategy is an inductive one, which starts by collecting data on characteristics and patterns; producing descriptions; then relating them to research questions (Blaikie, 2007: 68). Chapters 5 and 6 outline the organisational and individual level descriptions; while Chapter 7 relates them to the research question. It is an appropriate strategy for addressing the empirical research question, since inductive logic addresses 'what' questions by establishing descriptions of characteristics and patterns (ibid.).

Inductive logic starts with making specific observations and moves towards more general inferences. It is used to build theory from case study data (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). As case studies are not selected to be representative of a population (see 4.3.1), "*analytic generalisation*", which compares empirical results with previously developed theory, is used to generalise from specific cases (Yin, 2009). Or, as Stake (2006) puts it, a case is considered meaningful in terms of what is already known about other cases. In analytic generalisation, it is the *plausibility* of theoretical claims, rather than the extent of their expression in a population, which is important (Locke, 2001: 39). Practically this is accomplished by "*enfolding literature*" i.e. comparing analyses with the extant literature (Eisenhardt, 1989).

²⁰ This is a disproportionate response - 65% of females who were invited responded, compared with 36% of males - but was not investigated as gender is not considered in this study

The link back to case data is important. Eisenhardt and Graebner (2007: 25) suggest that “*the theory-building process occurs via recursive cycling among the case data, emerging theory, and later, extant literature*”. My experience bears that out. For example, noting that interviewees responded to emerging organisational patterns in how they felt, thought and behaved led me to Oreg et al’s (2011) paper on responses to change as tri-dimensional attitudes. I then re-looked at the data with those affective/cognitive/behavioural categories in mind.

In order to make the details of the case more explicit, enabling readers to reach their own conclusions (Yin, 2009), this thesis takes a broadly ethnographic stance in presenting first and second-order analyses (van Maanen, 1979a). Thus Chapters 5 and 6 present largely first-order analyses, describing the ‘facts’ of the case (at organisational and individual levels) from the perspective of research participants, bringing their voices in through the liberal use of quotations; while Chapter 7 presents a second-order theoretical analysis. This approach has been taken in other case studies of sensemaking in organisational change (e.g. Gioia and Chittipeddi, 1991; Balogun and Johnson, 2005).

In line with a methodology of multiple perspectives, this study adopts a combination of analytic procedures suitable for making sense of process data; namely a narrative strategy and visual mapping strategies (Langley, 1999). The narrative strategy tells the story of the organisational case of change at Educase and is a suitable strategy for making sense of rich, eclectic, case study data (ibid.). Analytic segments which use visual mapping strategies are embedded within the narrative, as these help to make sense of relationships and patterns (ibid.) within the overall story of organisational change. Three types of visual map are used in this thesis (see Table 18).

Table 18: Visual mapping methods

Visual map	Data source	Method	Summary
Patterns of events	Interview data Archival documents	Event listing (Miles and Huberman, 1994)	A matrix which arranges a series of events by chronological times periods, sorting them into several categories
Thematic patterns	Interview data	Thematic networks (Attride-Stirling, 2001)	A web-like illustration summarising the main themes within a piece of text; which makes a claim, supported by warrants and several backings (Kyriakidou, 2011: 577)
Social networks	Survey data	Social network analysis	A visualisation of the structure of relationships between entities in a larger system, based on mathematics (Hoppe and Reinelt, 2010)

4.6.2 Analytic procedures

Developing the narrative – organisational story

Narrative strategies organise rich case data into a detailed story which communicates context and aims to convey a high degree of authenticity to readers (Langley, 1999).

A case history (the story of organisational change at Educase) drew together analyses of multiple sources of data from Phases 1 and 2 into one coherent story. Like many narratives, it is temporally organised (Langley, 1999). Phase 1 data analyses help set the scene and describe the context for organisational change at Educase; then Phase 2 analyses consider the experience of organisational change. The resulting document was shared with the organisational sponsor at Educase and factual corrections (e.g. numbers and dates) and personal reflections were invited. On the latter, he commented; *“On the whole, and trying to recognise the balance of views held by all, not just my own, I think the feel is about right”*. Chapter 5 presents that story. Some context-specific details have been removed to preserve the anonymity of Educase.

My start point in analysing textual data was grounded analysis (Easterby-Smith et al., 2008). Easterby-Smith et al differentiate between two competing positions at each end of a continuum: content analysis, where codes are pre-determined; and grounded analysis, where there are no *a priori* defined codes. They suggest that grounded analysis is sensitive to context and time; which makes it more suitable for this organisational change research. While it followed an inductive strategy in making sense of case data, my analytic approach was not pure grounded theory (in either the Glaser, 1978; or the Strauss and Corbin, 1998: traditions). Rather than entering the research with as few assumptions as possible and using the social situation to highlight appropriate issues for study (two underpinning beliefs in grounded theory, Locke, 2001: 25-6);

the basic theoretical framework of self-organising change was already developed and Educase was purposefully selected as a site for studying change leadership within self-organising change.

The grounded analysis began with a process of familiarisation²¹ and open coding to identify and name concepts in the data; using Atlas.ti 6.2 as a database. My purpose was to get to know my data in order to build a case narrative. Indeed the early part of Chapter 5 is structured around codes such as growth, development, continuity and context, as these describe important characteristics of the organisational case. I found that the line-by-line coding advocated by Strauss and Corbin (1998) created fragments of text, divorced from their context and the speaker. This usefully served to ‘make the familiar strange’; a concern in interpretive research (Blanche et al., 2008), especially ‘insider’ methodological approaches such as ethnography, and in creative processes (Mannay, 2010). Open coding therefore helped me to notice characteristics that were not immediately apparent e.g. the importance of funding to research participants was more evident from weight of references across interviews, than from interviewees’ emphases. Perhaps its familiarity to them made it less remarkable for them. (Chapter 8 considers the advantages/disadvantages of coding using Atlas.ti).

While useful, the “*micro focus*” of detailed bottom-up coding processes, like Strauss and Corbin’s, “*risks losing the broad pattern of the forest for the descriptive detail of the trees*” (Langley, 1999: 700). Further, implicit assumptions that meaning resides in text waiting to be ‘discovered’ (Glaser and Strauss, 1967) downplays the agency of the researcher.

As discussed in 4.2.2, the research question demands an interpretive stance. Interpretive research aims to achieve understanding; what philosopher Wilhelm Dilthey calls ‘*verstehen*’. Verstehen is “*an experiential understanding of action and context*” (Stake, 2010: 48) which seeks to “*grasp the subjective consciousness of the participants*” (Blaikie, 2007: 119). Taking a complexity perspective highlights the relational nature of this social world; a world that researchers can only access from the inside, through participation. Such a view suggests that meaning does not lie in the text of an interview transcript, but is co-created between the interviewee and interviewer in the series of complex responsive processes we label ‘an interview’. This reminds us that a qualitative researcher is the interpretive research instrument (Stake, 2010).

Developing thematic networks

Themes are patterns which describe, organise and interpret aspects of a phenomenon (Boyatzis, 1998: 4). This study explores emerging patterns from the perspective of change leaders, so thematic analysis helps to explore research question (3a) ‘What emerging organisational patterns

²¹ Interview transcripts re-read with audio: key passages highlighted, margin notes and summaries made. This provided a reminder of tone, pace and emphasis.

do change leaders notice and interpret in language?’ Thematic networks have previously been used in a similar study; a case study which explores how organisational members make sense of organisational change during (planned) transformational change in an academic institution (Kyriakidou, 2011).

In this study, two thematic networks (Attride-Stirling, 2001) depicting emerging organisational patterns at Phase 2, were inductively developed from case data. Thematic analyses “*seek to unearth the themes salient in a text at different levels*” (ibid. 387) and thematic networks illustrate how those themes are connected. Using this method, ‘basic themes’ are derived from and characterise textual data. Similar issues are then clustered into ‘organising themes’; a higher-order theme. ‘Global themes’ cluster a number of organising themes together to “*summarize and make sense of clusters of lower-order themes*” (ibid.389). Each successive level involves a greater degree of abstraction.

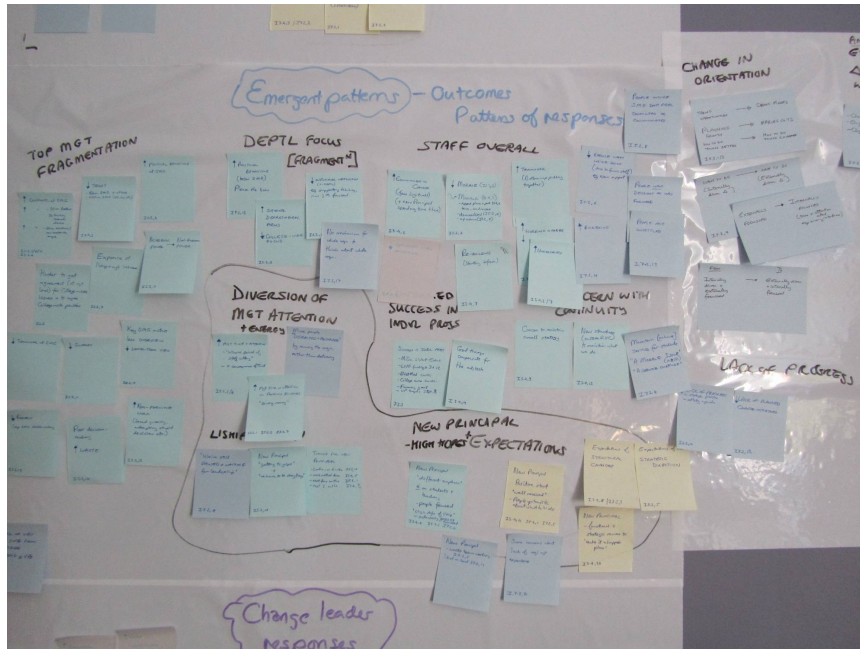
Themes are “*sensed*” from data and thematic analysis “*is a way of seeing*” (Boyatzis, 1998: 1). The risk is that the resulting insights may seem “*visionary*” or “*delusional*”, depending upon whether others agree with them (ibid.). The thematic networks method, based on the background logic of Toulmin’s (1958) argumentation theory (Attride-Stirling, 2001; Kyriakidou, 2011), helps address that issue. Using this theory, a global theme makes a ‘claim’, based on the ‘warrants’ of the organising themes, and the ‘backings’ (supportive arguments) from the basic themes which are derived from the data. Thus a thematic network aims to be transparent about the logic used to make a central assertion (a claim) about the meaning of the data at a higher level of abstraction.

In striving for transparency I am acknowledging a researcher’s active participation in identifying and reporting thematic patterns, rather than claiming themes simply ‘reside in’ text waiting to be discovered (Braun and Clarke, 2006). So, although the basic themes were developed inductively from participant accounts of organisational change and were considered to feel “*about right*” by the organisational sponsor, the thematic networks represent my sensemaking (of their sensemaking). The implications for change leaders are discussed in Chapter 7.

To develop the themes, I systematically revisited each Phase 2 interview transcript, asking what it was saying about emerging organisational patterns, summarising my observations on post-it notes, along with interview references, before posting them on a whiteboard. Having done that for all the interviews, I then stood back (temporally and literally) before starting to cluster similar items together, moving individual post-its around to add to and split groups that were beginning to develop. As it became more obvious what groups were about, I noted down words and phrases on the whiteboard, changing and amending them as my understanding developed. At the

same time I started to notice patterns between groups, drawing and redrawing circles around clusters of post-its. To give a flavour, some work in progress is illustrated at Figure 10.

Figure 10: Data analysis in progress



Developing social networks

Social network analysis (SNA) considers the structure of relationships between entities within a larger system using mathematics and visualisation (Hoppe and Reinelt, 2010: 600). Here it seeks to better understand the structural patterning of informal social networks in organisational change at Educase. Structural patterning is a ‘core idea’ of organisational social network research (Kilduff and Brass, 2010). A structuralist approach focuses on network topology and patterns of interconnection (Borgatti and Foster, 2003) and thus complements qualitative data about the nature of social relationships²².

The social network survey data was cleaned and anonymised²³ before being entered into proprietary SNA software the Organizational Forms Simulator (OFS) (Bilge, 2005; Bilge et al., 2009)²⁴. The OFS calculates data about network characteristics (see Table 19 and sample output

²² Borgatti and Foster (2003) differentiate between this ‘structuralist’ approach and ‘connectionist’ concerns with the resources that flow through social ties; offering the analogy of girders and pipes

²³ Due to the free text fields, social networks survey data requires substantial cleaning. For example: James Brown, James Braun, Jim Brown, J Brown, JB could represent 5 nodes, or just 1. I double checked names and spellings against the employee list provided by Educase’s HR department. Each unique person was given a unique code based on their department and level. Some of the free text fields contained data other than names e.g. titles like ‘Head of Department’, or qualitative comments like “I talk to students”. Such responses were summarised and informed qualitative analyses about the nature of social networks at Educase.

²⁴ OFS was developed for the EPSRC funded ICoSS Project (Integration of Complex Social Systems) at the London School of Economics <http://www.psych.lse.ac.uk/complexity/Research/icoss.html> (Accessed 15.11.2011). It was selected for (1) its previous use in complexity-based studies and (2) its capacity for agent-based modelling (unused).

at Appendix E) and visually plots the resulting networks. Each of the five questions was analysed and reported separately i.e. each forms its own social network.

Table 19: Network characteristics calculated by the OFS

Network characteristics	Description
Histogram of incoming connections	Frequency of no. incoming links per node (e.g. 2 nodes in the network have 14 incoming links, 19 nodes have 1 incoming link)
Most consulted nodes	No. incoming connections to each node (person)
Most utilised nodes	Nodes which connect most people in the network (e.g. if Nodes A and B do not have a direct link, they may need to connect through Node C)
Clustering coefficient	Measures local communities in the network using Newman's (2001) method of triangles
Average degrees of separation	Measures connectivity within the network (i.e. average no. intermediaries required to connect any two nodes)
Cliques	Groups of people connected to each other, but not to other parts of the network (Luce and Perry, 1949)

Developing a view of change leaders

After cleaning and anonymising the data (as above), the three survey questions about change leaders were content analysed. This highlighted names (and their frequencies) and summarised qualitative comments. A subsequent structural analysis calculated how many times a particular person was named to illustrate the overall shape of the data.

Developing the embedded cases

Short character narratives were written to bring together multi-source data from and about four individual change leaders into a coherent narrative; each was 5/6 pages long. They summarised interview data from that person, perceptions of them from other interviews and my own observations, and summarised how they were perceived in the social networks/change leader survey. Although these character stories are not included in Chapter 6 for reasons of anonymity (discussed in Chapter 8), they provided a first-order analysis of each of the embedded cases.

Next, the Phase 2 interview transcripts were content analysed for: what emerging organisational patterns individual change leaders noticed; how they interpreted them; how they responded; and its impact on what change they pursued and how they did it. This contrasts with the grounded analysis used in the organisational case. However it is a suitable approach for the embedded cases as these constructs were already embedded in the research questions.

Figure 11 summarises the data analysis described in this section for ease of reference.

4.6.3 Research quality

Before introducing the results and analyses, it is helpful to consider why readers should believe what is said here (Lincoln and Guba, 1985). Rigour in (non-positivist) qualitative research is often considered in terms of the trustworthiness (Lincoln and Guba, 1985) of its design and methods. Table 20 summarises why the findings presented in the following chapters should be considered trustworthy through the design and methods used, using Lincoln and Guba's (ibid.) criteria of credibility, transferability, dependability, confirmability; along with Marshall and Rossman's (2010) addition of ethics.

Figure 11: Data analysis overview

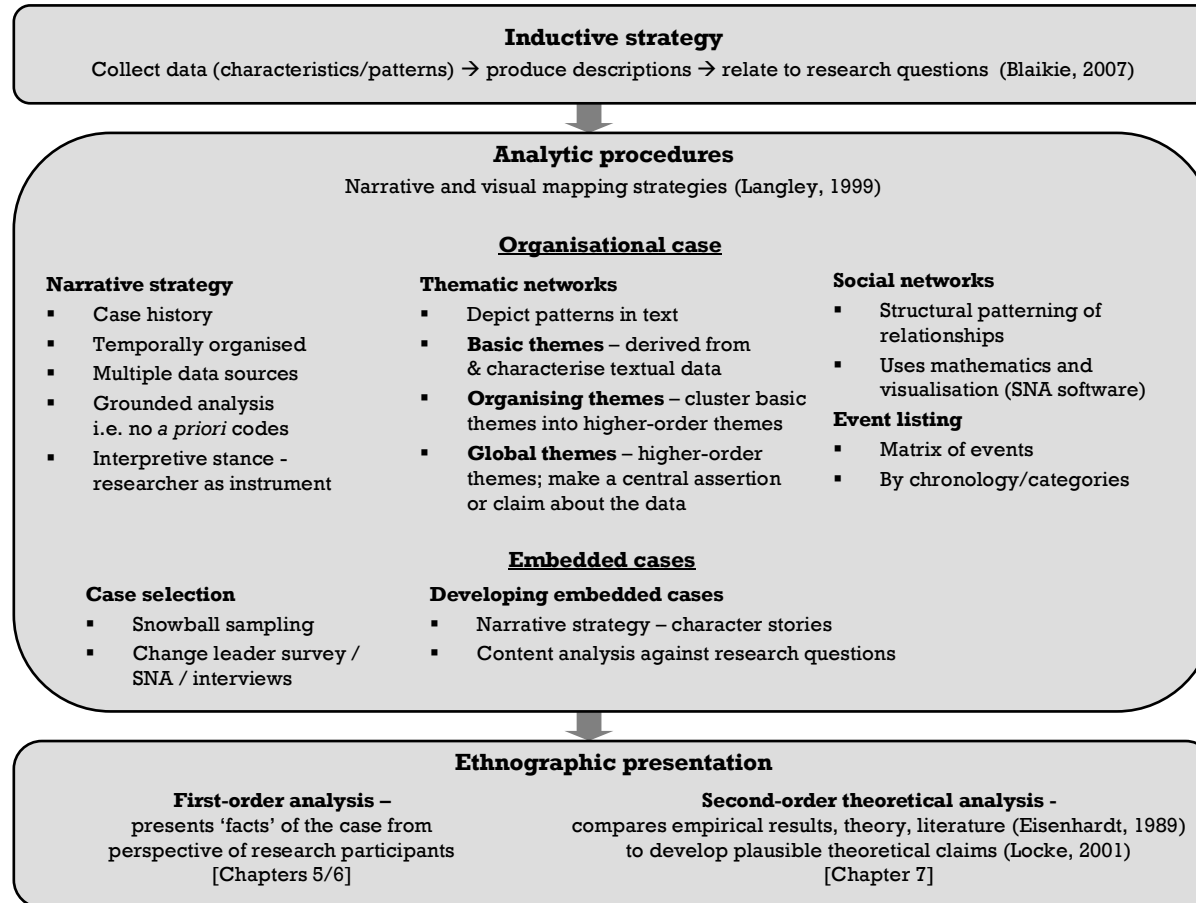


Table 20: Trustworthiness of findings

Criterion	Response
Credibility* <i>Was the research designed so that it could describe the phenomenon?</i>	<p>Organisational change is a rich, complex, contextual, temporal, multi-level phenomenon; illuminated by multiple perspectives:</p> <ul style="list-style-type: none"> ▪ Two-phase longitudinal design: temporal issues; comparisons ▪ Multi-level design: organisational/individual levels ▪ Organisational case: organisational change in its real-life context ▪ Multiple data collection methods: triangulation ▪ Multiple analytic methods: pluralistic perspectives on the data ▪ Overall qualitative orientation: analysis of rich data ▪ Member checking: 'Reflect back' workshop with TMT (Phase 1); organisational sponsor comments on story of change (Phase 2)
Transferability* <i>Is the researcher explicit about parameters and how that might tie into a broader case?</i>	<ul style="list-style-type: none"> ▪ Cases not designed to be representative of a population (Yin, 2009). ▪ Rich description has intrinsic value (Stake, 2006) for Educase. ▪ Thematic patterns are specific particularisations of more generalised, socially-evolved, human tendencies to act (Stacey, 2007). They may have instrumental value (Stake, 2006) and broader transferability beyond Educase; but will evolve as they are particularised (Stacey, 2007).
Dependability* <i>Does the researcher account for changes in the conditions of the phenomenon being researched?</i>	<p>CAS evolve, so results <u>not</u> replicable. Dependability requires good research practice and transparent procedures:</p> <ul style="list-style-type: none"> ▪ Design decisions/changes explicit (e.g. research question) ▪ Critical reflections: methodological/researcher reflections; (Ch8) ▪ Case study database facilitates reference/retrieval of raw data (transcripts, field notes, documents, surveys) separately from case reports (Yin, 2009) ▪ 21 interviews recorded/transcribed, enabling researcher access to original data; quotations referenced, enabling re-checking
Confirmability* <i>Does the research confirm general findings?</i>	<ul style="list-style-type: none"> ▪ First/second-order analyses offer transparency of analytic process ▪ Thematic network analysis makes explicit the procedures in moving from text to interpretations (Attride-Stirling, 2001) ▪ Further research (section 8.3) considers how findings may be explored further in order to confirm/extend/modify
Ethics** <i>How is the researcher ethically engaged during the study?</i>	<ul style="list-style-type: none"> ▪ Research participants briefed: participation/data use/protection ▪ Interviewees gave signed consent to their participation; separate consent to recording ▪ Research designed to benefit participants by offering opportunities for reflection/learning: interviews/reflect-backs ▪ Participant anonymity taken seriously (see Chapter 8)

* Criteria from Lincoln and Guba (1985), questions derived from Remenyi et al (1998: 116-7)

** From Marshall and Rossman (2010)

Chapter 5: Organisational results and analysis

“I kind of looked forward to calm waters ahead... how wrong I was!”

(Educase manager)

5.1 Overview

Qualitative research is interested in learning from the particular (Stake, 2010). Here the particular is the case of organisational change at Educase, a rather more dynamic case than research participants expected, as the above quote indicates. This chapter offers readers an insight into that case, a first-order analysis; building a platform for the second-order analysis in Chapter 7. Consistent with the multi-level case study strategy adopted, this chapter presents the organisational case and Chapter 6 reports the embedded cases of individual change leaders.

This organisational story of change presents a case narrative gleaned from multiple informants and data sources. The notion of ‘story’ acknowledges my instrumentality, as author, and my goal of creating a coherent account from a wealth of detailed data. It recognises that narratives “*enrich, enhance and infuse facts with meaning*” (Gabriel and Griffiths, 2004: 115); a gentle epistemological reminder that knowledge of reality is socially mediated (Fleetwood, 2005). While it necessarily reflects my own sensemaking, it brings in the voices of research participants through the liberal use of “*power quotes*”; the most compelling pieces of data which illustrate the points being made (Pratt, 2008; 2009). The first version of the organisational story of change was written shortly after Phase 2 data collection. It was reviewed by the organisational sponsor, who verified factual data and offered his²⁵ reflections. Since dates and numbers have been checked, documentary sources are not referenced. Parts of the original story have been abridged as they contained data which could compromise Educase’s anonymity.

As there is no single ‘boilerplate’ for writing up qualitative studies (Pratt, 2009) and no “*stereotypic form*” for case study reports (Yin, 2009: 165), choice lies with the writer. Like many process narratives, this chapter is temporally organised (Langley, 1999). Section 5.2 sets the scene. Drawing on analyses of Phase 1 data, it introduces Educase and its change leaders; and describes the cultural and structural context for change. Next, section 5.3 considers the experience of organisational change at Phase 1. It highlights considerable change, in terms of growth and

²⁵ Although some research participants were female, male pronouns (and pseudonyms) will be used throughout to protect anonymity

development on multiple fronts, coupled with organisational continuity within a stable context. Section 5.4 draws attention to the changing context for change during the period of the study. Section 5.5 then discusses the organisational experience of change at Phase 2. It highlights emerging patterns in three domains of organisational change: patterns of events; ‘changing patterns of relations’ and ‘changing patterns of attention’. Section 5.6 offers insights into the continuing story of change. Section 5.7 summarises key points, concluding with Figure 16 which provides a succinct reminder of the story of organisational change at Educase.

5.2 Setting the scene

5.2.1 About Educase

Educase is a Higher Education institution (HEI) within the biomedical science field. It provides undergraduate and postgraduate education, plus a range of continuing professional development programmes to educate professionals and academics in its specialist sector. It is also a centre for academic and clinical research in that sector. Largely in support of its teaching and research work, Educase offers (income generating) clinical services. The three strands of teaching, research and clinical services are regarded as Educase’s “*core deliverables*” [I7.1]²⁶; each is represented at top of the organisational hierarchy.

Educase is a long-established HEI, well-known and well-regarded in its field. It is headed by a Chief Executive²⁷ (CE) who is responsible to the largely independent governing body for its conduct. The CE heads an executive top management team (TMT) who manage Educase. At the outset of the case (2009/10), Educase had approximately 800 staff and 2,000 students.

5.2.2 Cultural context

Research participants explained that the cultural context at Educase has been influenced by the wider academic culture, the culture in its professional sector and the HE sector:

Academic culture

Academic culture tends to be individualistic. Individuals compete for funding, have academic freedom to pursue their own research interests and develop their personal reputation. Therefore “*there’s a limit to how far you can tell academics what to do... so you can’t dictate change*” [I5.1], and “*they’ll*

²⁶ [I7.1] is a document reference. ‘I’ indicates an interview, the first with informant 7. Notes of meetings with multiple participants are prefixed ‘M’.

²⁷ Not actual job title, but indicative of the role

never all go in the same direction” [I11.1]. Further, *“in academic institutions... there are key individuals who can sway a department even though they don’t have official roles”* [I2.1].

Academics are *“conditioned to question, to challenge”* [I4.2], *“it’s in their very nature to question things and ... to be critical”* [I11.1]. At Educase people are *“not afraid to talk with colleagues and thrash things out”* [I12.1]. They are often *“openly critical in a supportive way”*; which is seen as *“psychologically healthy”* [I8.1].

There is a strong distinction (and some sense of elitism) between academic and non-academic staff; *“never the twain shall meet”* suggested one interviewee [I1.1]. In the past *“the academics were in charge”* [I2.3] and *“you definitely need robust personalities here to deal with the academics”* [I10.1]. Even those who suggest that the *“us and them”* has been replaced by teamwork [I12.1] differentiate between academic and non-academic staff; e.g. *“the academic staff and the support staff lean on each other quite a lot”* [I8.1].

Professional culture

As a single discipline institution, the culture of the professional sector is *“one of the dominant cultures”* at Educase [I5.1]. It is a *“small profession”* [I5.1], *“an incredibly micro-world ... so everybody knows everybody”* [I3.4], and there is a resistance to seeing themselves as part of a larger community [I9.1]. Many people at Educase identify strongly with the profession and seek to contribute to its development; *“there’s this actual sense that we all owe something to everyone”* [I11.1]. The profession is seen as traditional *“old school”* and rather elitist [I1.1]; somewhat *“entrenched”* and resistant to change, especially any change coming from outside the professional community [I9.1].

The profession is regarded as a vocation. It is competitive to get into; people want to do it and to do their best, so there is *“a culture of hard work and high standards”* [I5.1]. Research participants suggest it is one which attracts people who are introspective, risk averse and not lateral thinkers. There are clear professional boundaries and demarcation between fields of expertise. At Educase, therefore, professionals are often *“a little bit nervous”* about doing things outside their immediate area of expertise; worried that less than expert performance may damage their reputation [I7.1]. A consequence is that *“no one thinks it’s their role to manage the change.... None of them would feel that it’s an important part of their job”* [I1.1].

Higher Education culture

The HE sector is competitive. There is competition between HEIs with league tables (e.g. the National Student Survey) and public institutional audits; and there is competition to win research and other grants. Institutional reputation is important in HE. Educase’s CE explained: *“I do*

think reputation is everything in the sense that if you have a good reputation, then you will attract more talented people, both students, staff, and it's a self-fulfilling prophecy, so some extent".

Educase is influenced by the wider HE sector, so political and economic changes in the sector affect Educase. One interviewee described HE as being *"like a kind of government department"* [I7.1] in terms of how it is funded.

Educase culture

Educase is *"an institution that is committed to excellence"* with *"an expectation that things will be done at a very high level"* across all its activities [I5.1]. *"The senior management view was, if we're going to do this, then we're going to do it well"* [I5.1]. Indeed 'success breeds success': *"if we're successful with something, then we've got to think of somewhere else to be successful"* [I3.1]. In light of expected financial constraints, the CE suggested that *"the best way to respond is to be excellent at everything we do"*. Educase's corporate plan states that it seeks to be *"remarkable"* for quality across the board and it attracts high quality staff who buy into that.

The professional culture of hard work and high standards has manifested at Educase. Even under enormous pressure to do well, staff will *"never let you down. You put them on stage, they'll never let you down"* [I8.1] and *"there is that culture where people do put in that extra effort"* [I5.1]. Some of that is driven by a competitive spirit: *"you don't want yours to be the only garden in the street that's a jungle when everybody else has got a nicely manicured garden"* [I5.1].

Educase has *"a sort of 'corporatist' approach"*; *"a stronger culture of the organisation saying 'everybody will do X'"* than other academic institutions, with staff expected to buy-into *"organisational imperatives"* [I5.1]. Individuals follow their own interests and expect to *"meld your interests in, obviously, with how it's going to help the institution"* [I3.1]. This is largely accepted: *"there's a lot of goodwill amongst staff, when staff need to do things"* [I3.1] and *"generally morale is good"* [I12.1].

Educase is seen as more change driven and ambitious than its peers. *"I think this place is quite ambitious"*, suggested one interviewee, *"the people that work here are quite ambitious"* [I7.1]. In a small profession that is widely recognised. *"It's a sufficiently small profession and people would know what they were letting themselves in for if they came to Educase. And it would not be seen as being the 'quiet option' ... you would be going to an institution where there's a lot of change and development"* [I5.1].

5.2.3 Structural context

Formal structure

Educase has three academic departments and two non-academic support departments; each run by a Head of Department (HoD). HoDs are *“advocates for their departments [and]... the senior management representative in their departments”* [I5.1]. Most staff report into these departments and the majority of non-capital budgetary resource is allocated to them. Consequently HoDs have considerable positional power: *“to some extent, you are dependent on the individual Heads of Department as to where they want to take their group of people”* [I6.1].

There is also an implicit matrix structure where *“the majority of people in academic posts, at least, would find themselves answering to a different line manager in different situations”* [I11.1]; e.g. teaching, research, clinical work, management/administration. Historically the structure has been designed *“to have tension that people believe will be beneficial, so the tension between the competing areas of interest is [seen as] a valuable situation”* [I1.6]. Yet, as a small, single-discipline institution, there are closer links between departments and more focus on what is best for the institution than there might be in multi-faculty universities; *“the departments and the centre are, I think, much more closely – intertwined”* [I5.1].

The TMT at Educase is 13-strong. Headed by the CE, it comprises the heads of the academic departments; heads of the large support functions; and senior academics with responsibility for influencing standards across Educase in terms of core deliverables (e.g. teaching, research, clinical standards). A seven-strong group of the most senior TMT members meets separately to discuss issues which are *“strategic, not operational”* [I12.1].

Informal structure

Senior people are normally visible, accessible and open (borne out by my own experience). Interviewees commented; *“it’s quite open door over there”* in the senior management offices [I3.1]. The CE *“normally has his door open”* so people *“can see that he’s free and pop in”* [I5.1]. *“It’s very easy to meet the CE and to get to the senior levels, no difficulty at all ... [and] you can talk about things and know about things that they wouldn’t in other institutions”* [I3.4].

Due to Educase’s small size and the fact that many of those in senior positions have been *“here a long time”* [I12.1], *“everybody knows everybody”* [I3.4]. Knowing people and being known is seen as important in effecting change:

“Where I know the area fairly well, I can anticipate what are going to be some of the issues for certain individuals, and therefore who could be a blocker” [I2.1].

“It’s easier if you’ve been here longer. If you’re a new member of staff it’s a lot harder to get what you want out of people” [I10.1].

“I can go to people and bump into people and talk to people who are quite senior here - very senior - and they’ll talk to me quite openly... Because they know me and trust what I do, they’ll come along” [I3.1].

Social networks

To explore the structure of the informal networks used in effecting change, a social network analysis (SNA) was conducted among the top 100 at Educase (see Chapter 4). The survey asked five questions to elicit directional ties:

1. Who do you go to in order to find out what’s going on around Educase?
When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...
2. ...help you develop and shape the idea?
3. ...influence others to support your idea?
4. ...influence the TMT to support your idea?
5. ...ensure that your idea gets put into action?

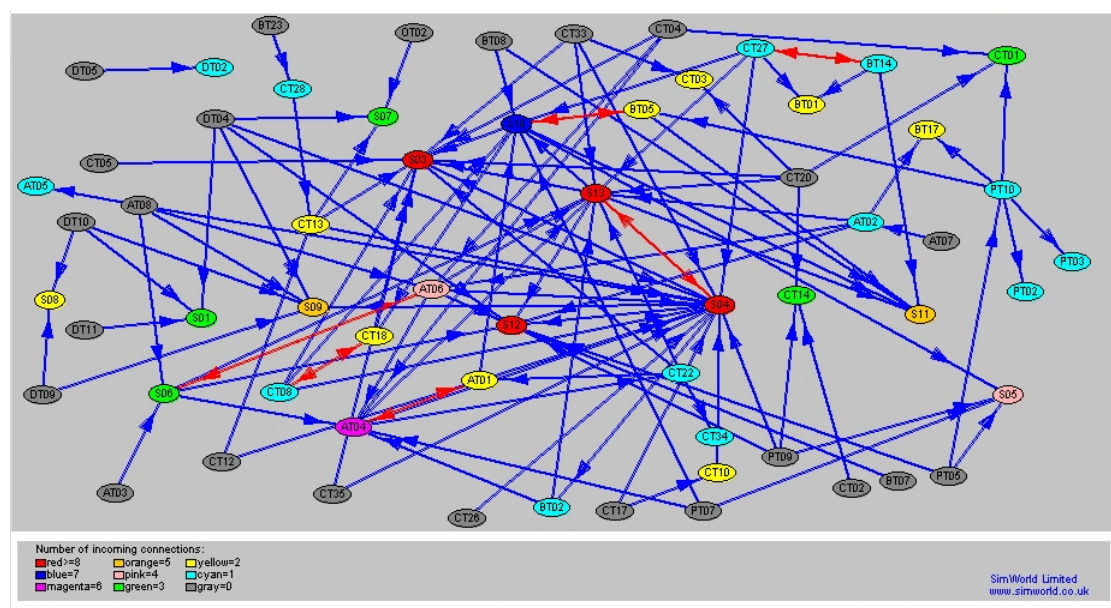
Each question invited respondents to name *up to* five people. Some respondents made qualitative comments instead of, or as well as, names. A social network was created for each of the five questions. Appendix F outlines numerical and qualitative responses by question, and sets out the detailed SNA results. The results are summarised in Table 21 and findings discussed below.

Table 21: Summary of SNA results

	Summary of results
Shape of the data	<ul style="list-style-type: none"> ▪ Incoming connections follow a power-law distribution: small instances of a phenomenon are common, large instances rare; this is common in social networks (Barabási, 2002). E.g. for Q1, 48 nodes on the network have one incoming link; one has 14 incoming links.
Most consulted/ most utilised nodes	<ul style="list-style-type: none"> ▪ The top ten most consulted nodes across all five questions yielded twelve unique nodes; ten of those are TMT members. ▪ The top ten most utilised nodes across all five questions yielded 19 unique nodes: seven of those are TMT members; the remaining 12 are members of the Top 100.
Network characteristics	<ul style="list-style-type: none"> ▪ Small-world networks are evident: most pairs of people are connected by short chains of intermediate acquaintances (Milgram, 1967); average degrees of separation range from 1.95-3.18. ▪ Social networks not highly clustered: indicates high reliance on a few central nodes, rather than strong relationships across the networks. The clustering coefficients range from 0.15-0.33: C=1 for a fully connected network (Newman, 2001). ▪ Cliques: there were some pairs of people connected to each other, but not to other parts of the network; there were no cliques >2
Social network diagrams	<ul style="list-style-type: none"> ▪ Illustrates core/periphery structure (Borgatti and Everett, 2000): people at core are better connected than those on periphery; also shows network is not divided into sub-groups.

The SNA supports qualitative suggestions that “*everybody knows everybody*”. The five social networks were all small-world networks, approximately two intermediaries (1.95-3.18) connect any two people on the network; there is little evidence of local communities; nor of cliques. A few densely connected nodes (people) sit at the core of each network (illustrated in Figure 12; S03, S04, S12, S13 = most densely connected). As networks grow, these well-connected nodes are likely to become even better connected ('preferential attachment', Barabási and Albert, 1999).

Figure 12: SNA network diagram (Q3)



The SNA also indicates that many people go to TMT members to find out what is going on around Educase and in service of creating change that impacts more broadly than their direct area of responsibility. It suggests a hierarchical culture where people go up and down the organisation in terms of information flows and to exert influence. Qualitative comments that people go to their line manager or HoD support this finding and highlight the importance of vertical department structures at Educase. Comments also highlighted that some individuals do not feel empowered to get involved in change outside their direct area of responsibility. One person who politely declined the survey invitation emailed “*to be honest I am having problems answering this survey. I do not try to influence change in areas outside my immediate area of responsibility*”.

The SNA also highlights that some people outside the TMT play an important role in connecting the networks. The relatively low clustering coefficients indicate high reliance on a few central nodes to connect the networks, which makes them sensitive to the loss of any of those nodes.

5.2.4 Change leaders at Educase

The change leader survey (part of the social networks survey) asked a further three questions:

In your experience...

6. ...who generates significant ideas for change at Educase?
7. ...who plays a key role in shaping the agenda for change at Educase?
8. ...who needs to say 'yes' for change to happen?

Each question had five free-text fields for respondents to name *up to* five people. Some people made qualitative comments instead of, or as well as, names. Detailed results are shown at Appendix G.

Like the SNA, the shape of the data follows a broad power-law distribution. For each question, many people were named once, but a few were named multiple times. There was little variation in the top five names between the three questions. The five people seen as generating ideas for change (Q6) were also seen as shaping the agenda for change (Q7), with one change in the ranking. When it comes to saying 'yes' to change (Q8), one new name appears in the top five (see Table 22). As indicated by the 'S' prefix to the code, all those people are in the TMT. In Q7 one person (S12) was named 31 times, the *first* person on 27 lists, which may suggest he was the first person to come to mind. In Q8 that same person was named 35 times; named first 32 times.

Table 22: Change leader survey – most named

Ranking by question				Ranking by change leader				
Ranking	Q6	Q7	Q8	Leader	Overall	Q6	Q7	Q8
1	S13	S12	S12	S12	1	3	1	1
2	S04	S13	S13	S13	2	1	2	2
3	S12	S04	S03	S04	3	2	3	5
4	S10	S10	S10	S10	4	4	4	4
5	S09	S09	S04	S09	5	5	5	6
Other(n)	S03(11)	S03(7)	S09(6)	S03	6	11	7	3

These analyses suggest that a few people are widely associated with change at Educase. They also indicate that many people perceived as contributing and shaping most of the ideas for change, as well as being in a position to say 'yes' to change, sit at the top of the organisational hierarchy. There are three plausible explanations for this. The first is that respondents perceive that power and influence over change is held by the few, rather than being distributed among the many. Secondly, respondents may not really know who is behind change at Educase, just assuming it comes from the top. Or, they may have answered in a socially desirable way, naming their bosses.

Qualitative data largely supports the first explanation:

“A very small amount of people control a huge amount of power” [I1.1].

Change comes from *“a small group of activists”* [I3.2].

“I don’t think [change] is always democratic... in fact I could probably pin-point it to one person” [I1.10]. (They named S13).

“Like almost all universities... it’s not a democracy, it’s basically an autocracy really and there are a few power-brokers here who are reasonable visionaries” [I6.1].

“There’s a maximum of 13 people you have to convince and probably there are only four or five who are key players” [I6.1].

However, some evidence supported the second explanation. One person who declined to participate in the survey commented; *“I really do not know who generates change within Educase. Change is clearly approved by the TMT and one can imagine who the most influential figures are but I simply don’t know who actually drives change”*. However, at the reflect-back workshop, TMT members agreed with the first explanation, adding; *“it’s what we do and are expected to do... the TMT is expected to lead and implement change”*.

5.3 Experience of organisational change – Phase 1

This section draws on Phase 1 data (primarily interviews and documentary sources) to consider the history and nature of organisational change at Educase. This is understood as reflective of participants’ retrospective sensemaking (Weick, 1995) and constitutive of their context for change at Phase 1.

5.3.1 Nature of change

Attitude to change

Looking back over ten years²⁸: *“We’ve had a lot of change... we’ve done an awful lot of things - a great deal. It’s been a period of quite significant change for Educase”* [I6.1]. Change has become the norm and *“people at Educase are enormously now used to and pretty accepting of a lot of change.... People by and large, if they think it’s a reasonable idea, will just get on with it”* [I4.2]. This acceptance has been helped by the *“significant number of people who are actually new to the organisation... [and] haven’t been so attached to what was there before”* [I5.1] and because *“maybe the people that stay are the people that are willing to adapt and*

²⁸ The timeframe was not specified in the invitation to look back, but most interviewees reflected on a 5-10 year timeframe during Phase 1 interviews

change” [I5.1]. Others may simply be more resigned to it; *“some of the staff have been reluctant, but we’ve got to do it basically, it’s going to happen whatever”* [I10.1].

Impetus for change

Much of the impetus for change is attributed to the CE and his predecessor: *“I think essentially it’s got a chief executive who’s committed to change, to driving change”* [I5.1]. However, it also comes from staff who have a *“willingness to innovate... [which] probably goes back historically a long number of years”*, with the CE willing to *“harness that sort of... enthusiasm”* [I5.1]. One interviewee explained; *“we’ve got to try and think, right let’s do something different, because quite frankly we’re bored stiff doing the same old thing”* and also *“the institution expects us to do something different”* [I3.1].

Underpinning those institutional expectations is: (1) a need to secure funding *“responding to external things... [due to] funding pressures”*; and (2) a desire to build reputation through *“self-induced”* changes which are *“all about recognition rather than about income”* [I4.2].

Type of change

Much of the change at Educase has been characterised as *“growth and development”* [I5.1]. These two areas are now considered in more detail.

5.3.2 Growth

There has been significant **growth in student numbers**. Educase’s core degree programme (CoreDegree) grew almost fourfold in five years (2003-8). As well as growth in numbers, there were deliberate attempts to increase the diversity of the student body²⁹. New degree courses were added in biomedical science and nursing. There has also been a deliberate reach out to different cohorts; particularly US students and those from non-traditional backgrounds in the UK, the latter via a well-regarded programme of widening participation (WP).

In common with other HEIs, **staff numbers have also grown** during the period; although at a slower rate than students. Increased student numbers brought sufficient economies of scale to enable recruitment of specialists and there has been notable growth of the academic support functions, including the appointment of a director for strategic fundraising and the planned launch of a £30 million campaign. A second notable area of growth has been the international staff base. By early 2010, approximately 35% of Educase’s academic staff originated from overseas.

²⁹ Paradoxically social and demographic changes have led to less gender and socio-economic diversity in the typical Educase student during this period

Growth in student numbers has led to, and driven, growth in student-related income. Another source of **income growth** over the period was research grants. Part of that growth may be attributed to increased staff numbers, but there has also been a focus on winning competitive grants and a track record of success in this area. One manager commented: *“For an institution this size, we were very successful in winning bids, in getting additional resources”* [I5.1]. 2009/10 saw an increase in grant income compared with the previous year, despite a more competitive environment.

Driven by, and enabled by, growth in student numbers and income, there has been significant **investment in the built structure** of Educase over the past ten years. Research Phase 1 saw the completion of major works at Educase’s urban campus and the commencement of an extensive building programme at its large rural campus. In addition to the investment in built structure, designed to offer more student facilities, a range of other **student services** were established or enhanced; including counselling, careers and financial advice.

5.3.3 Development

As well as pure growth, organisational change at Educase has focused on developing its capability and reputation. Educase aspired to be the ‘best’ HEI in its particular professional sector by being *“the best in every area of [its] activity”* [I5.1]. That drive to be best has manifested in several areas including:

Widening Participation

A political priority within HE during this period, Educase has developed a comprehensive programme of WP activities. These include a foundation year supporting students from non-traditional backgrounds to access its CoreDegree; Easter and summer schools; active participation in a Lifelong Learning Network and its efforts to create progression agreements from FE programmes onto HE courses; schools liaison and science education programmes. Other work has focused on extending its reach to looked-after children (for which it achieved external accreditation) and the traveller community. Educase’s WP activities are well-regarded: highlighted internally by the CE in his 2009 address to staff; and featured in a 2011 government White Paper.

Teaching and learning

WP activities were additional to the existing set of educational activities. More fundamentally, however, the CoreDegree curriculum was altered significantly in 2007/8. This saw a change in approach from lecturing to learning, including a reduction (25%-50%) in terms of taught lectures; an increase in private study time; and increased focus on independent student learning. In

2009/10, the new curriculum reached CoreDegree's clinical years. It focused on small-group, directed learning using clinical scenarios, and offered students the option of following particular tracks (reflecting their interests) in their clinical rotations. There was also increased focus on business and ethics training.

A specialist teaching and learning centre was established in 2005, on receipt of a competitive grant from HEFCE (the Higher Education Funding Council for England). It has been a focal point for research and innovation within teaching and learning in the field; impacting Educase and, by dissemination, the broader profession. Many projects have been undertaken under the auspices of this centre (70 were highlighted in its February 2010 brochure). These include new approaches to teaching and innovations to directly enhance student learning. The originator of one innovation won a Times Higher Education award in 2009. There have also been many other technology-based enhancements to support teaching and learning.

Research

Research at Educase is of international quality, with 55% of research staff producing 3* and 4* research in the 2008 Research Assessment Exercise. This puts it in the top quartile of HEIs (n=30) in its sector.

Efforts have been made to change the approach to research at Educase from being a purely individual endeavour to a more collective effort, with scientists working together in interdisciplinary teams. This has involved actively connecting people with similar research interests; encouraging them to make joint funding applications and work together. Efforts have also been made to publicise active funding opportunities internally; to support staff in writing better funding applications; and to generate greater understanding of the funding process by senior staff participation on funding committees. However, senior managers acknowledged that there was still more to do in this area.

Support functions

Efforts have been made to enhance communication and team working between academic and support staff in order to improve the student experience. Support staff reported progress in this area over the period; particularly in implementing the new CoreDegree curriculum. During 2009 there was streamlining of some support functions across Educase (previously large academic departments had their own support functions). A cross-organisational review of another function began in 2010.

External recognition

There has been a focus on external recognition. In 1999 Educase became the first HEI in its field to be accredited by the relevant professional body in the US, and retains that accreditation today. In a Quality Assurance Agency subject review, it achieved maximum scores for teaching standards and, in 2008 the regulator expressed broad confidence in Educase's management of the quality of its educational programmes and the standard of its degrees. As outlined above, Educase has also been externally recognised for its WP activities and there have been many individual successes, with prizes and awards in teaching and research.

5.3.4 Continuity

Despite the significant change at Educase, there has also been continuity. Many members of staff are long-serving, particularly towards the top of the organisation, and several staff members were formerly Educase students.

There have been just three CEs at Educase in some 40 years. The CE at Phase 1 was seen by some as continuing and building upon the changes started by his predecessor; so there has been broad continuity in strategic direction for Educase. There has also been broad continuity in relation to the internal structure during this period of change, with one manager commenting: *"we haven't had the sort of dramatic re-organisations that other organisations have had"* [I5.1].

5.4 Changing context for change

5.4.1 From stability to uncertainty

A Labour Government, in power from 1997 to May 2010, provided a period of political stability and support for HE. It sought to increase student numbers and focused on widening access to HE, and to the professions, for under-represented groups. Growth and development at Educase took place during a period of significant change for the whole HE sector. As well as political support, there was general economic prosperity in the UK and *"a period of essentially benign financial availability in association with student numbers"* [I4.2]. Funding, although mostly competitive, was therefore fairly readily available to support growth and development on many fronts.

The period of study (December 2009 – January 2012) was characterised by higher levels of uncertainty than the previous ten years; largely precipitated by external political and economic events and institutional responses to them. However, the unexpected change of CE during the research period also contributed to higher levels of uncertainty at Educase.

5.4.2 Changing HE context

A new Conservative/Liberal Democrat coalition government in May 2010 brought a period of political uncertainty and expectations among research participants of funding cuts and policy changes in many areas. In July 2010, HEFCE announced reduced funding for 2010/11 of £52 million and warned that the October Comprehensive Spending Review would adversely impact 2011/12 funding. In October 2010, HEFCE reduced agreed 2010/11 grants for Educase by £300,000. In March 2011, it confirmed that 2011/12 grants would be 10% lower than 2010/11.

An independent review of HE funding and student finance was launched in November 2009, led by Lord Browne, to make recommendations to government on the future of fees policy and financial support for students. The Browne Report (October 2010) recommended a radical change in the way that HEIs were financed (see Figure 13). In December 2010 the government won a vote to raise tuition fees in England to a maximum of £9,000 per year and to change the way that HEIs are funded from 2012/13. In light of uncertainty about the fees that universities might choose to charge, the HE White Paper, due in March 2011, was delayed to June.

Figure 13: Excerpt from the Browne Report

What we recommend is a radical departure from the existing way in which HEIs are financed. Rather than the Government providing a block grant for teaching to HEIs, their finance now follows the student who has chosen and been admitted to study. Choice is in the hands of the student. HEIs can charge different and higher fees provided that they can show improvements in the student experience and demonstrate progress in providing fair access and, of course, students are prepared to entertain such charges.

Our recommendations will lead to a significant change; we do not underestimate the work that will be required.

Source: Browne (2010: 3, my emphasis)

In late spring 2011, many universities (including Educase) reported that they planned to charge the maximum £9,000 tuition fees from 2012 (for CoreDegree and one other; lower fees were announced for two further undergraduate courses). In May, the government Minister for HE intimated that further deregulatory change was likely³⁰ and university heads voiced concerns that the sector faced “*unparalleled uncertainty*”³¹. In June 2011 the HE White Paper was published; its official aim “*putting students at the heart of higher education*”³². The press reported that universities would be forced to “*fight for places*” under “*the most radical shake-up for higher education for decades*”³³.

³⁰ Reported in The Guardian 31.05.11 (<http://www.guardian.co.uk/education/2011/may/31/david-willetts-higher-education-deregulate> accessed 30.01.12)

³¹ Reported by the BBC 14.05.11, said by Professor Shirley Pearce, Vice Chancellor of Loughborough University, speaking at the Vice-Chancellors’ Conference, (<http://www.bbc.co.uk/news/education-13387242> accessed 14.05.2011)

³² Department for Business Innovation & Skills (<http://bis.gov.uk/news/topstories/2011/Jun/he-white-paper-students-at-the-heart-of-the-system> accessed 30.01.2012)

³³ Reported in The Independent 28.06.11 (<http://www.independent.co.uk/news/education/education-news/universities-to-fight-for-places-2303798.html> accessed 30.01.12)

5.4.3 Changing internal context

There was a change of CE during the research period. The Phase 1 CE unexpectedly announced his resignation in June 2010 in order to move to a new institution. The process to appoint a new CE commenced in November 2010 and he started in January 2011.

In response to expected reductions in government funding, plus an unexpected budget overspend revealed during summer 2010, the TMT introduced a process of cost-cutting. This included a severance scheme, launched in autumn 2010, to reduce staff numbers by up to 10% by March 2011.

Analyses of Phase 1 interviews highlighted differences between Educase's previous experience of organisational change and what people were expecting going forwards. Instead of growth and development, there was increased focus on being *able "to survive sufficiently to be able to still move forward"* [I8.1] in a more challenging financial environment by making efficiencies across Educase. The TMT expected that efficiency and survival would be a priority for the whole HE sector.

5.5 Experience of organisational change - Phase 2

This section presents analyses of Phase 2 data, which consider participants' experience of organisational change at Educase since Phase 1, and largely reflects the summer 2010-spring 2011 period³⁴. It highlights emerging patterns of organisational change in three domains of organisational change (loose categories of change, Dart and Davies, 2003): patterns of events; 'changing patterns of relations'; and 'changing patterns of attention'.

5.5.1 Patterns of events

5.5.1.1 Significant events

Responding to my question; 'what's changed about Educase since our initial meeting?' many Phase 2 interviewees highlighted patterns of events. Events are considered here to be situated temporal occurrences which take place at, or over, a specific period of time. Events include both 'acts', action which is "*temporally brief*" and 'activities' of "*more major duration*" (Lofland, 1971; in Miles and Huberman, 1994: 61).

³⁴ Individual interviewees were invited to reflect on the period since their Phase 1 interview. Most Phase 1 interviews occurred in spring 2010 and most Phase 2 occurred in spring 2011. For some individuals, the intervening period was slightly longer/shorter than this. However, their reports largely focused on the summer 2010-spring 2011 period

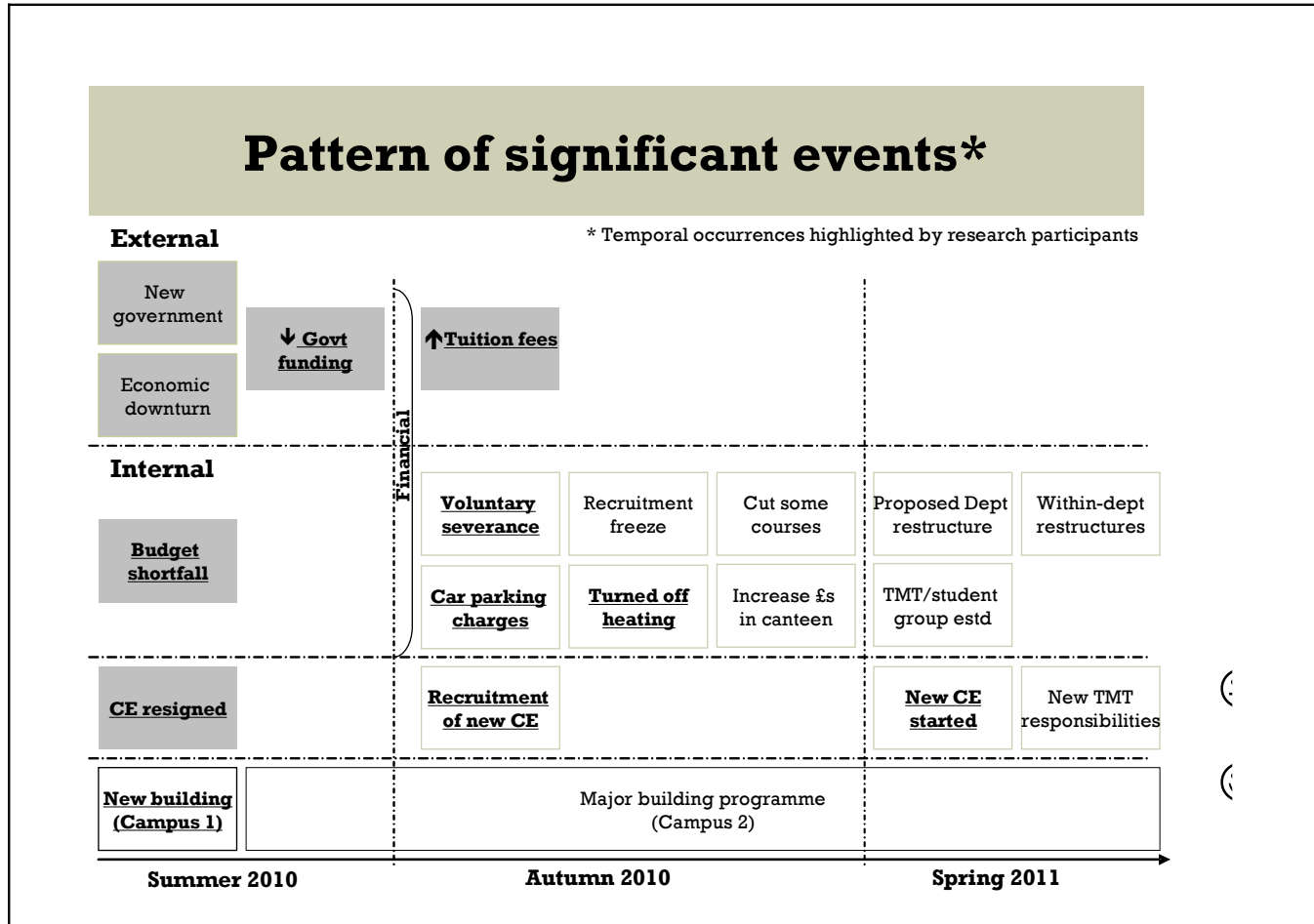
When prompted to highlight one or two most significant changes, most people emphasised the financial environment and the change of CE, sometimes linking the two.

- Change of CE:** *“I guess the first thing that I’d mention, and that probably everybody else will, will be, we have a new CE” [I7.2].*
“It’s a very close organisation, so when there’s movement at the top that really does affect everything” [I3.4].
- Financial issues:** *“We have had a ground-rush of change concerning public expenditure cuts, and the realisation of what an increase in fees for our students will mean” [I7.2].*
“Well I guess the two biggest changes, from my perspective and probably from others as well - are the impact of the cut in higher education funding with, and the need, therefore, for us to have a round of voluntary redundancies” [I11.2].
- Combination:** *“I guess that the external effect of the cutbacks has been very significant for us. The sort of, the blight really, of the announcement that the CE was going, and then the six months before he left was significant, and the subsequent exposure, really, of some of the leadership and management issues that would have remained dormant, or not been challenged, had we not had the funding problem and the loss of the CE” [I2.3].*
“In that twelve month period we’ve been through the process of selecting a new CE and having them start, and at the same time we have had, what shall I say, a period of ‘disturbing financial instability’” [I6.1].

More positively, interviewees also highlighted the Campus 1 building project. It was seen as an *“organisational success”* which has improved collegiate life [I7.2]; provided a *“psychological lift”* and demonstrated organisational commitment [I3.4]. One person highlighted it as the most significant change, commenting; *“It’s the one that people talk about, it’s the one that people obviously have pride in, and... it’s the one thing that has completely changed the way in which people use that campus” [I9.2].*

The event listing (Miles and Huberman, 1994) in Table 23 identifies events discussed by interviewees along an indicative timeline.

Table 23: Pattern of significant events



KEY

Grey: unplanned by Educase

Hatched: Phase 2 responses to unplanned events

Clear: planned at Phase 1

Emphasised: highlighted as particularly significant by research participants

The event listing (Table 23) does not denote exact sequencing, duration or causality. Events are categorised as external/internal and planned/unplanned by Educase³⁵. Events are loosely grouped in horizontal sub-categories relating to finance, the CE change and the built structure of Educase. These categories reflect classifications used by interviewees. For example one interviewee highlighted planned/unplanned change events, directly contrasting *“things that I think we knew were going to happen because they were being planned... so those don't really represent a departure from what I knew”* with those that were *“unanticipated”* [I11.2]. Others emphasised the degree of significance, highlighting *“major”* events [e.g. I3.4; I7.2; I12.2].

5.5.1.2 Event patterns

Events, while temporally situated, are not discrete or de-contextualised. They may be related and they are embedded in context. Therefore the enactment of events is patterned. Some interviewees highlighted patterns of events. In the following excerpts, interviewees highlight both chronological and stimulus/response patterns; laying out chains of events:

“Then of course two things happened almost half way through the year. First of all, a few days after opening the [new building]..., the CE announced that he was leaving... which threw everybody into a bit of a tizz. And, of course, there was an economic crisis in the country and elsewhere. And we were told in no uncertain terms that there were going to have to be major economies, which would be very significant and affect everybody” [I3.4].

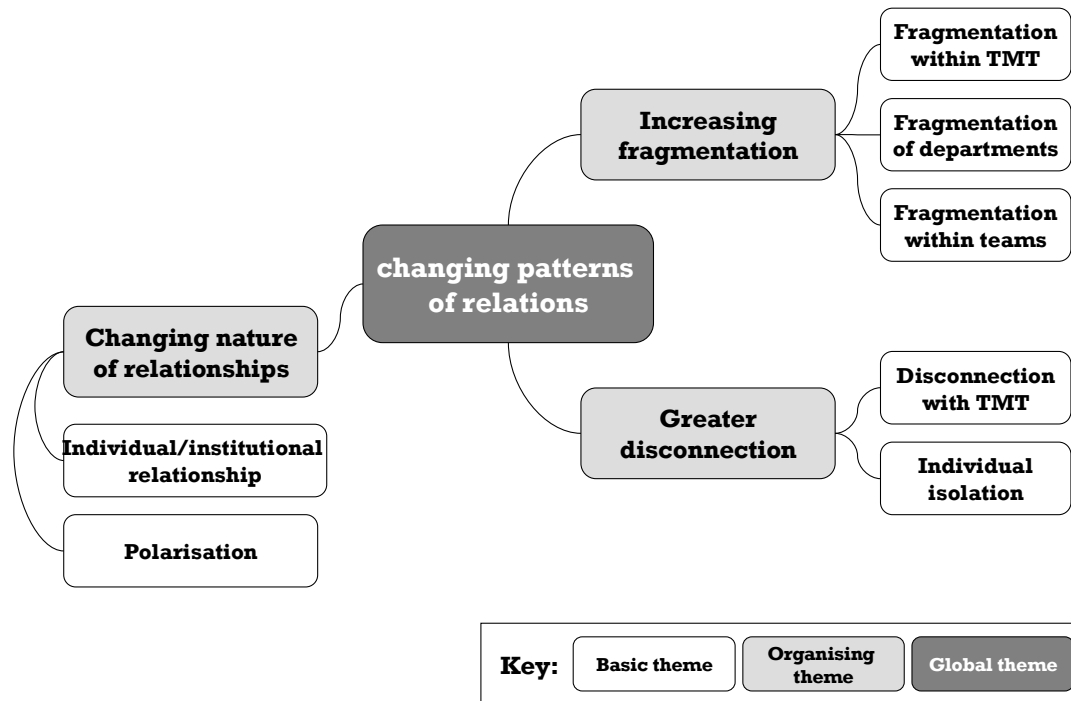
“I think the big thing that happened then was, [CE] decided to leave, which wasn't a fundamental concern, or change, or anything; if I'm going chronologically. But then the whole budget fell apart in the late summer. And there was the whole tuition fee thing as well. So there were two, there was Educase's own crisis of funding because of all the [department] difficulties and things, plus the tuition fees environment being flagged, which led on, of course, to the voluntary severance and the ridiculous turning off of the heating in the autumn” [I8.2].

5.5.2 Changing patterns of relations

The central assertion is that ‘changing patterns of relations’ represents an emerging pattern of organisational change at Educase. ‘Changing patterns of relations’ is presented as a global theme (Attride-Stirling, 2001) sitting at the centre of the thematic network in Figure 14. Using Attride-Stirling's terminology, it is warranted by three ‘organising themes’: increasing fragmentation; greater disconnection; and the changing nature of relationships. These are backed-up by seven ‘basic themes’ derived from the Phase 2 interviews. The network visually represents patterns identified in the data and is used here as an organising framework for discussing those patterns.

³⁵ Resignation of the CE was not expected by Educase, although it was planned by the individual. Similarly the budget shortfall was not anticipated by the TMT

Figure 14: Changing patterns of relations



5.5.2.1 Increasing fragmentation

Phase 2 interviews highlighted increasing fragmentation in particular intra-group relations since Phase 1. Research participants discussed fragmentation within the TMT; within Educase (between departments); and within some teams.

Fragmentation within TMT

This theme highlights divisions within the TMT reported at Phase 2. While there were reports of productive relationships between particular TMT members [I2.3; I9.2; I12.2], the overall picture, described below, was of a divided body, perhaps with some informal coalitions, rather than a united team.

One top manager observed that *“from the point of view of leadership and management of Educase, we’ve had our biggest challenges really for many years”* [I2.3]. Another commented; *“I’ve observed some colleagues have been really under pressure... And there was quite a convergence of ‘difficult things’ during the Autumn term”* [I12.2]. The impact of that pressure was the *“exposure, really, of some of the leadership and management issues that would have remained dormant, or not been challenged, had we not had the funding problem and the loss of the Chief Executive”* [I2.3].

There were reports of increasing conflict and political behaviour within the TMT. One manager described *“arguments”, “confrontation”, “fights” and “games being played”* [I2.3]; highlighting divisions and the erosion of trust between various groups of managers. He explained; *“I guess it happens whenever you are confronted with difficult times, that there is a danger if people aren’t all working well as a team... that the different groupings start to see that somebody else is doing things to their own advantage and the other’s disadvantage. And therefore that’s how the trust is eroded. And I sort of feel that that has been happening”* [I2.3].

Competition between internal candidates in recruiting a new CE, plus internal competition for resource, adversely affected the unity of the TMT. One manager observed: *“The change in Chief Executive was a very painful process for the institution. And everyone, to some extent, got caught in that in terms of crossfire... maybe the timing was unfortunate that it came down to a period also when competition was being brought about by competition for resource, there was also competition for being head of the institution. And I think that it probably - and maybe the two things coinciding - brought about the sense of fragmentation of the unity of, maybe, senior management. Because there were people who were in direct and fairly open competition”* [I11.2].

The impact of that internal competition was felt more widely across the management population, with *“the couple of layers below [TMT] being asked to side with individuals, and hopefully not being stupid enough to do so”* [I11.1]. One manager commented; *“I think sadly for Educase, people got a little polarised into who they thought would be the best new Chief Executive from the internal candidates”* [I6.2].

Fragmentation of departments

The image of departments as vertical silos, raised at Phase 1, was highlighted again at Phase 2. The story was of existing divisions becoming more entrenched due to increasing competition for resources, limiting the success of initiatives which required cross-organisational working and increasing the personal frustration of those trying to lead them.

One manager described departmental silos headed by powerful *“baronets”*; a situation which he suggested limited cross-departmental working and organisational development [I7.2]. Another commented; *“not that necessarily the institution was that harmonious before [laughs] - but I think it’s less harmonious now!”* [I11.2]. He went on to highlight increased competition for resources and divisive behaviour, with people *“circling the wagons”* and *“defending their own area”*; perhaps because financial constraints *“tend to make them focus on their area, and how important their area is”* [I6.2]. Divisions between departments were emphasised with perceptions that some departments *“got into more trouble than others, but we were all carrying the can”* [I1.2]. Another interviewee noted *“there’s more vested interest type argument and I think there’s more unhappiness in the people involved in the different groups”* [I2.3].

Where activities to improve effectiveness involved working across departments, people had *“come up against the buffers in trying to resolve some quite important problems”* [I8.2] because budget control was held elsewhere, or because *“there was no mechanism for getting the organisation overall to consider what we are for, as an organisation”* [I7.2]. In both instances, interviewees expressed the frustration felt by themselves and their teams. One manager who had previously developed an informal network to address cross-organisational issues found it increasingly difficult to mobilise efforts. He commented; *“As there’s been some fragmentation of different groups, it hasn’t been as easy for me to persuade others to join in and help with the work ... [because] in various ways they’ve become more engaged in the internal departmental politics, rather than the organisation level activities”* [I2.3].

Fragmentation within teams

For some, increasing fragmentation had not been confined to management. The perceived threat of redundancy was thought to have set people against each other [I10.2; I11.2]; *“I think what it tends to do is it fragments people... so that they tend to look at each other in a way of justifying their own existence; saying, ‘well I work harder than you, and therefore you should be the one whose job is at risk and not*

mine” [I11.2]. A perceived lack of communication during that process, *“managers won’t talk to staff”* [I10.2], added to the fragmentation, i.e. between managers and staff, in some teams.

However that has begun changing in some areas, with people working together to cover resource gaps resulting from the staff reductions. As one person explained: *“now what’s happening, and I have to say, from the bottom up... there’s very much a ‘well look chaps, we’ve got to work together’ kind of approach... and I’ve started to foster that in my team now”* [I8.2].

5.5.2.2 Greater disconnection

Disconnections were more explicit during Phase 2. Disconnection describes inter-group/inter-personal patterns of relations, where individuals or teams are perceived to be distanced in some way. There was a perceived disconnect between the TMT and the rest of Educase. There were also indications that some individuals felt more isolated.

Disconnection with TMT

People thought that the TMT had become disconnected from the rest of the organisation; with a growing *“gulf between TMT and the layer below”* [I8.2] and *“a continued breakdown in trust, in some ways, between the TMT and other sectors in the organisation”* [I2.3]. Some described a lack of transparency about what was going on in the TMT. One manager described *“a communication gap”* and greater confusion about who to see and what to do, resulting in *“a bit of stumbling around in the dark at the moment”* [I8.2]. Decision-making was unclear; *“these decisions were being made and people didn’t know why or who was making them... and they weren’t thinking about us as people”* [I1.2]. Another confessed to not understanding the senior group within the TMT; *“to be honest with you, I don’t really know quite what they do”* [I7.2].

Some were more openly critical of senior management. *“Senior management are too detached”*, said one person, criticising them for being *“locked up in their ivory tower”*, being unwilling to consult people *“at the coalface”* before implementing an idea *“because they think they know best”* [I10.2]. Others agreed; *“if difficult, unpalatable changes are taking place - then at least people should feel they’ve been consulted about them and communicated with about them”* [I5.2]. One person deemed TMT communication as *“atrocious”* [I14.1]. Reflecting back this organisational story prompted a further insight from a TMT member who suggested that *“some members of TMT were as much in the dark as the rest of the organisation”* about some decisions. This supports the notion of fragmentation of the TMT, discussed earlier.

More indirectly, there was a much stronger emphasis on ‘us’ and ‘them’ (the TMT). One person described a climate where; *“there is almost the sense now that ‘well, they’ve done one voluntary severance*

scheme, they know how to do it, so they could do another one” [I9.2]. A senior academic I saw in the coffee bar enquired who I’d come to see. I gave him the names of two senior managers. *“Why don’t you talk to any normal people?”* he asked [I15.1] and later volunteered; *“I’m pissed off ... you can’t believe the stupid things they did”* before volunteering a list of such things. Another person commented; *“There’s a line. When people get promoted to senior management they cross that line... and they change”* [I10.2]. That line was visible for some in terms of differing dress codes; with (most) managers in suits and academics in casual clothes [I14.1].

Although the disconnection was most strongly highlighted by those outside the TMT, some senior managers also noted an erosion of communication and trust between the TMT and others in the organisation.

Individual isolation

Some individuals had felt increasingly isolated over the period. One said that he felt *“in a minority in the way Educase management is going”* [I2.3], another described himself as being *“pretty much... a lone voice”* [I9.2] and a third described feeling like a *“prophet in the wilderness”* [I7.2].

Some people felt less supported by their colleagues, explaining; *“whereas in the past I felt helped in everything I did by the CE and colleagues on the TMT, I guess particularly in the last year I have not felt helped, or supported”* [I2.3]. Another manager discussed the loss of relationships; many of his reports had taken redundancy and he had yet to build a relationship with the new CE [I5.2]. Despite reports of more competitive behaviour at the top of the organisation, not everyone agreed that support had eroded. One person commented; *“I feel that we’ve worked in a very collegiate way. And I think that the spirit among the [senior] group and the wider TMT is mutually supportive and effective”* [I12.2]. However that was the only such report.

5.5.2.3 Changing nature of relationships

The way people talked about Educase was qualitatively different at Phase 2; with more open criticism of the institution and polarised views of particular senior managers.

Individual-institutional relationship

Most people reported significant change in the organisational climate at Phase 2 in terms of lower morale and increasing uncertainty. One senior manager said; *“I think the thing that has changed most is the culture and the morale of the organisation”* [I9.2]. Words like unhappy, pissed off, angry, vulnerable, anxious, uncertain, unsettled and insecure were used. One person said; *“Everyone was pissed off! And morale plummeted because of uncertainty, as it would in any institution”* [I3.4]. While another

commented; *“I think in terms of us being a confident, happy community, with our various missions, moving forward in a meaningful way. I think some of that has been lost”* [I2.3].

Some people considered the morale issue a temporary ‘dip’: *“at the moment people are just going phew, right, and ‘let’s start afresh really’. So we went from being in the earlier part of 2010 to being OK, perhaps a little pissed off with senior management about the sort of day-to-day things and other things, and then going erghh right down, and now coming back up”* [I3.4]. However, some voiced concerns that not everyone would bounce back so easily:

“Staff on the ground can have swung from doing an enjoyable job with enough resources, to suddenly finding themselves doing not an enjoyable job without enough resources” [I5.2].

“I think what’s happened is, that the people who’ve remained... have ended up having to work harder to achieve the same thing. Or worse, work harder to achieve an outcome of a lower quality and to feel that they’re somehow to blame” [I11.2].

Some people, who had expressed organisational pride and discussed ‘going the extra mile’ at Phase 1, told a radically different story at Phase 2. One suggested that introducing staff parking charges was *“the last straw”*, commenting that *“they’ve lost the goodwill of the staff”* [I10.2]. He explained; *“It gets to the point where people have had enough [not being listened to and consulted]. We’re all very stretched... like an elastic band, stretched to breaking point... and people don’t go the extra mile”*. Another looked upset, confiding; *“I don’t know whether I’ve got a future role within the organisation”* [I5.2].

The risk is that these changes could affect the employment relationship from an individual’s perspective (Wong et al., 2010), impacting on the psychological contract (Guest, 2004). Indeed some managers were acutely aware of the need for positive messaging:

“I do think that there is one thing that we do have to do... is to try to be upbeat and to try to celebrate the successes that we have. And to make sure that people are thanked for what they do and appreciated... And also, I think, just to make sure that people recognise that although it’s all very tough, we are still human all the way through the organisation” [I12.2].

“I think that negative role models can be extremely destructive, particularly in a period where morale is pretty low anyway. So I think that the role that people on the edge of senior management probably have is dissemination of the message” [I11.2].

Polarisation

The reported polarisation between ‘us and them’, discussed under disconnection was between the TMT and everyone else, *“normal people”* [I15.1]. In those stories, however, some TMT members were more likely to be cast as heroes or villains. One such ‘hero’ was only mentioned positively by interviewees and was referred to as *“a good guy”* [I15.1]. Conversely, the person seen as

responsible for the most unpopular decisions was often cast as the villain of the piece, epitomised by the comment; *“we all want his head on a plate”* [I10.2].

This polarisation was also evident in terms of attitudes to the two CEs. At Phase 2 the outgoing CE was vilified by some for ‘abandoning’ them at such a difficult time and causing some of the problems [e.g. I1.2], while the incoming CE was somewhat idealised [e.g. I3.4]. The high hopes and expectations of the new CE are discussed in 5.5.3.

A more subtle example of polarisation was how people referred to their colleagues. When people described ‘good’ relationships, the other party was most usually referred to by first name. When ‘bad’ or antagonistic relationships were described, formal titles were often used.

5.5.3 Changing patterns of attention

‘Changing patterns of attention’ represents an emerging pattern of organisational change at Educase. Patterns of attention reflect what people are saying (i.e. what they talk about and how they talk about them) and doing (i.e. how they spend their time). Attention is selective; *“it involves isolating... what information is important and what is given attention from an endless stream of events, actions and outcomes”* (Osborn et al., 2002: 811).

‘Changing patterns of attention’ is presented as a second global theme in a thematic network (see Figure 15). It is warranted by four organising themes: changing organisational stories; changing focus of management attention; changing operational focus; and changing organisational orientation; and backed by ten basic themes derived from interview data.

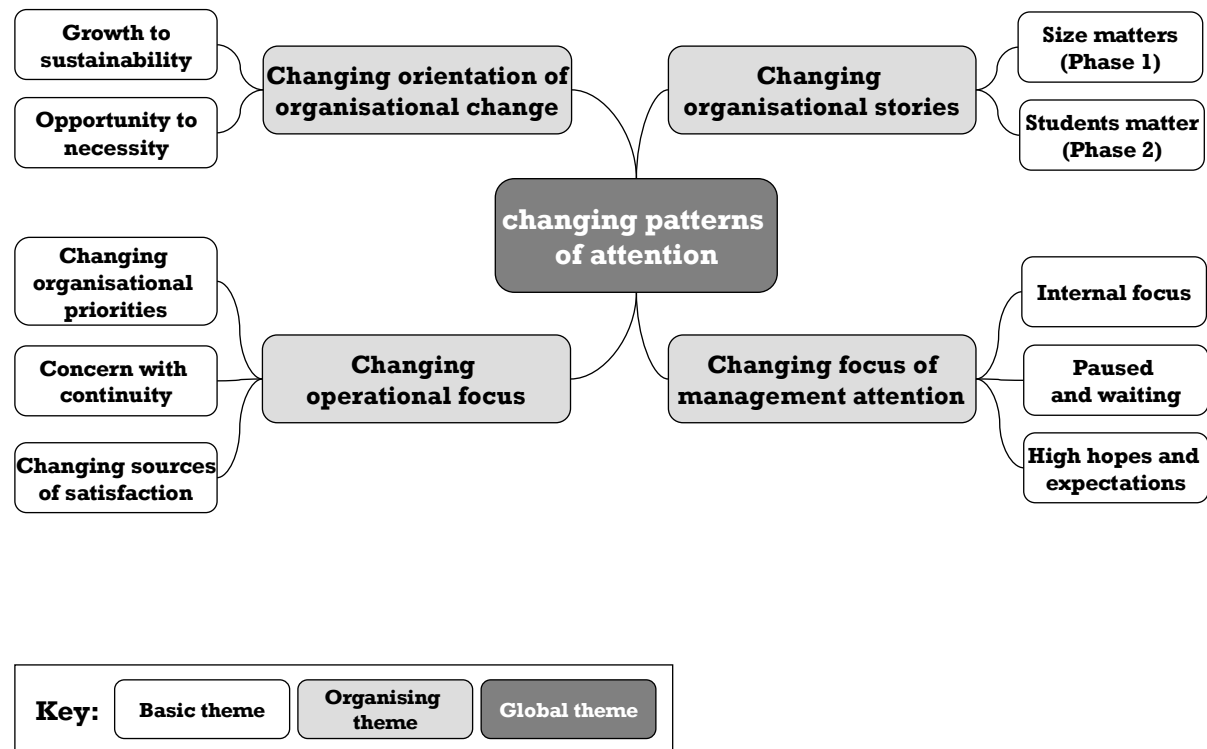
5.5.3.1 Changing organisational stories

This organising theme highlights two dominant stories about Educase. At Phase 1, research participants suggested that organisational ‘size matters’. At Phase 2, however, another story predominated; ‘students matter’. Throughout both phases it was clear that ‘funding matters’ to research participants at Educase.

Size matters

During Phase 1, many people talked about the size of the organisation, referring to Educase as *“a small institution”* [I3.1]; some, making the point about its growth, now calling it *“medium-sized”* [I4.1]. People proudly told stories about Educase ‘punching above its weight’: *“doing as much [in WP] as many of the big institutions”* [I1.1]; and *“for an institution this size, we were very successful in winning bids”* [I5.1].

Figure 15: Changing patterns of attention



Growth was a key trajectory for change in the past and was still a priority for many at Phase 1: in order to achieve economies of scale, for reasons of expansion or efficiency; to attract a critical mass of funding, e.g. for WP and capital projects; and gain University title³⁶. The implication was that Educase needed to be larger to operate well in its environment.

Somewhat paradoxically, Educase's small size was seen as beneficial; enabling change processes. Firstly, because *"everybody knows everybody"*:

"I can go to people and bump into people and talk to people who are quite senior here... but I couldn't do that in a larger institution" [I3.1].

Secondly, because things that need doing are visible:

"One thing about working in a small organisation is you see everything - so you see much broader than your function. So you see what needs to be done because it's small" [I8.1].

Thirdly, because it can facilitate a faster pace of change:

"With the big universities it takes them 2 or 3 years to get something through that takes us a year" [M1].

Students matter

During Phase 2, people still spoke of the small size of the institution; particularly in terms of the greater impact of loss of staff and the change of CE [I3.4; I5.2]. However, the more dominant story was that 'students matter'.

Many people were concerned that increasing tuition fees would see rising student expectations; perhaps unreasonable expectations. Some suggested that increased fees might change the student-institution relationship if students began to *"see themselves much more as paying customers"* which *"puts a kind of 'consumer culture' on higher education"* [I11.1]. This reflected *anticipation* of changing student expectations, rather than the experience:

"As the higher fees come in, it will be matched by a change in student expectations, a change in relationships between the institution and the students; which is probably not a change for the better."

Interviewer: Are there any signs of that yet...?

Not particularly, no, no, no, no. We may be completely wrong on that - but I think there's a reasonable expectation that a student paying £9,000 a year is going to have different levels of expectation than a student paying £3,000 a year" [I5.2].

Against a backdrop of poor results in the 2010 National Student Survey (NSS), which interviewees attributed mainly to a lack of on-campus student facilities, there was a renewed

³⁶ QAA guidance states that "an organisation wishing to apply for approval to use the title 'University' must... normally have at least 4,000 full time equivalent higher education students" (http://www.qaa.ac.uk/reviews/dap/info_for_inst.pdf retrieved 07.06.11)

determination to improve the student experience and move up the tables. While some mentioned this at Phase 1, it was more widespread and strongly emphasised at Phase 2. As one manager highlighted; *“the organisation is paranoid, quite rightly so, about the effect of the National Student Survey”* [I3.4]. Another said; *“we are, I think, more aware of how things might impact on the students”*; but was concerned about putting too much focus on the NSS, offering, *“and to some extent may have flipped a bit too far... because the question often is ‘well, how will they react in the National Student Survey’? Which is a bit, maybe not the right reason for doing it”* [I9.2].

People were concerned about being able to maintain existing levels of service in a period of reduced funding, with one person asking; *“how do we preserve the front-line if you are cutting and cutting and cutting? And I think that’s the real issue”* [I7.2]. Turning off the heating in winter alarmed a number of people, as highlighted earlier; *“staff were very angry about the way our students were being treated because of that. And, so that really sharpened up our anxiety about students. And, whilst it was a terrible thing, it’s perhaps kept them right at the top of the pile as a result!”* [I8.2].

Changing stories

These changing organisational stories reflect a changing emphasis in the patterning of attention between Phases 1 and 2. The data suggests two likely reasons for this change.

The first relates to exogenous changes regarding HE funding, discussed in 5.4. Prior to Phase 1, government focus was on increasing student numbers and HEI funding was directly linked to student numbers. By Phase 2, public funding for HE had been cut and the impact of the Browne Report had radically changed funding policy from 2012 from an institutional block grant, based on agreed student numbers, to a system where funds followed individual students to the institution of their choice. Concern with funding was apparent throughout both phases of research. It was clear that ‘funding matters’ in terms of the activities at Educase, which often followed available funding.

The second reason is an endogenous factor, related to the different *“emphasis”* [I3.4] between the two CEs. At his 2009 staff address, the Phase 1 CE suggested that Educase’s growth had helped them to respond well to the recession, and then asked whether the institution would have been so well-placed in 2004, with significantly lower student numbers. The Phase 2 CE was seen as more student focused:

“He’s addressed all the staff... and he has talked about the centrality of students in education; which may sound, I don’t know, that may sound pretty obvious, but actually is not obvious in a place like this. Because there will be people who don’t start there, but start elsewhere, clinical care or research, or

whatever. But he actually starts there, and he makes it clear that, as far as he is concerned, everything else we do underpins that” [I7.2].

5.5.3.2 Changing focus of management attention

Phase 2 data also indicated a changing focus of *management* attention. Managers were seen as more internally focused on running the organisation. Yet there was a sense of strategic management inertia, with the organisation ‘paused and waiting’ for leadership (an in-vivo theme). This was coupled with high expectations of the new CE.

Internal focus

Several research participants noted increasing management time and energy expended in the business of running the organisation:

“There are a lot more people taking a lot more notice of what makes the organisation tick, and what it costs to make it tick, than there might have previously been. And that is a good and a bad thing... we don’t want everybody distracted and absorbed by the internal problems of running an organisation in difficult times” [I7.2].

A number of things were seen as taking management attention, including the recruitment of the new CE. For some, this was due to their direct involvement in the recruitment process. However, as highlighted earlier, interviewees observed that competition between internal candidates absorbed time and energy for many people within top levels of the organisational hierarchy.

More significant, however, was the time and attention paid to financial survival through reducing expenditure, particularly staff expenditure:

“A lot of the management time has been taken up with, with really trying to hang on with what we’ve got. And certainly identify those areas which maybe, in the boom times, were developed around the fringe that maybe we should be giving up; and recognising what our core activities were and trying to maintain those” [I2.3].

“The most energy has gone into reducing staffing, reducing expenditure, and dealing with the consequence of that... I’d say that’s been my main focus, that’s probably been my single main focus in the last twelve months” [I5.2].

Paused and waiting

At Phase 1, people described a nimble organisation, quick to take opportunities; where change was the norm (at least in terms of growth and development). That pace was fuelled by a rapid decision-making process at the top of the organisation; *“essentially what happens is that the senior*

management, on a Monday morning, say there is an opportunity here. We'll sit round and say, should we do it?" [I4.2].

A rather different context was apparent at Phase 2 with what was described as *"a vacuum in strategy"* [I9.2]. One manager commented; *"I think we've gone into this, despite having a new CE, we've still gone into a black hole a bit, a planning blight"* where *"some of the major projects that I was working on... just kind of stalled"* [I9.2]. Educase was considered to be *"paused and waiting for leadership"* from the new CE [I7.2] who was still in his first three months, with people *"waiting with baited breath to see what [name]'s going to do"* [I9.2].

It was accepted, reluctantly by some, that it would have been inappropriate for the previous CE to make major strategic decisions in his final six months and that, with the new CE, it *"would be wrong not to watch and listen for a good few months before he did anything"* [I8.2], in order *"to get to grips, and understand what's going on"* [I2.3]. When asked, views on how long this settling-in period should be were wide-ranging; from 6-12 months in post [I8.2], to *"he's about on his limit"* [I9.2] after three months. Most were expecting significant announcements by summer 2011.

Despite considerable relief that there was no interregnum between the two CEs, there were concerns about being paused and waiting; *"actually it's the worst possible time for him to be getting to grips when we have to be doing things"* [I2.3]. For an organisation where growth and development was the norm, paradoxically, no change meant significant change for Educase.

High hopes and expectations of new CE

Interviewees emphasised the considerable influence of the CE in a small institution. At Phase 2 many expressed high hopes for the new CE and high expectations, some very high, for what he would do in his role.

The new CE was seen as having had a positive start. Interviewees commented that *"he's been well received"* [I7.2]; *"he's hit all the right buttons"* [I3.4] with staff at his introductory talks, where *"people were quite encouraged by his message"* [I5.2]; concluding that *"he's had a very positive impact"* [I12.2]. Although one person pointed out; *"he's not really 'rocked the boat' yet"* [I11.2].

The new CE was widely expected to provide clear strategic direction, with structural changes expected:

"I would imagine there will be structural changes once he's settled down, which there would have to be, that wouldn't be a surprise for anyone would it? That's why you have a new CE! That's what they are supposed to do" [I3.4].

“I think that we’re expecting that there will be significant organisational changes later this year” [I5.2].

“This is a dead cert - you’d get very low odds on it - I’m certain that [name] will sort out his management arrangements and team and it will get better” [I8.2].

But how realistic is to expect any new CE *“to make it a happier place”* [I3.4]; to provide *“a sense of purpose”* [I11.2]; or even to sort out highly-charged issues around departmental structures? Certainly there appeared to be a great deal of attention and emotional investment focused on the new CE sorting out some of the rather intractable problems at Educase.

5.5.3.3 Changing operational focus

The ‘changing operational focus’ reflects differences at Phase 2 in what people are doing and expect to be doing. It highlights changing organisational priorities; concern with continuity; and changing sources of satisfaction.

Changing organisational priorities

As well as paying increasing attention to the student experience, discussed earlier, interviewees also noticed, or anticipated, greater emphasis in other areas (summarised in Table 24). This included paying more attention to student marketing and recruitment (domestic and international) and considering the competitive positioning of educational and commercial offerings. It also entailed focusing on philanthropic and other income generation; and process change across Educase in service of organisational efficiencies. In contrast, interviewees expected less focus on investment; *it’s going to be a long time before we get back to a situation where the organisation has any way, really, of feeling that it’s in, that it can be in investment mode”* [I7.2]. While there are financial connotations to all the above, rebuilding staff morale was also an area of focus.

Table 24: Organisational priorities

Focus	Illustrated by
Student experience	<i>“I think something which is changing is our determination to improve in the National Student Survey. And to move up the tables” [I12.2]</i>
Student marketing	<i>“There’s going to be more emphasis on marketing and recruitment because of the economic climate that HEIs face” [I3.4]</i>
International expansion	<i>“The organisation needs to build up its recruiting base, certainly internationally, but at the same time not to sacrifice its domestic recruiting, which is a danger” [I3.4]</i>
Competitive positioning	<i>“I think the new fees arrangements are bringing the commercial aspects to the fore more... I mean, what are we going to offer that’s different to our competitors? [I8.2]</i>
Income generation	<i>“So that’s been one of the big issues for us, really looking at how we can generate more income both of the philanthropic type and otherwise” [I12.2]</i>
Process change	<i>“Process change is something which I think has, it’s always been there, but I think it’s become more sharply focused” [I12.2]</i>
Rebuilding morale	<i>“The low morale really ripped the place apart in the latter half of the year... And really we’re just having to re-build on that” [I3.4]</i>

Concern with continuity

Along with expectations of changing organisational priorities, interviewees were also concerned with continuity: maintaining Educase's overall strategy; staying on course with the corporate plan; maintaining services for students; continuing with building projects; and maintaining the organisation's reputation. One manager reported having consistent priorities over the past 12 months in *"students, staff and budgets"* [I8.2]. Another highlighted continuing external focus on access to HE and, therefore, continuing internal focus on WP. Assumptions (discussed above) that the new CE should set strategic direction and imprint his style is another example of people's concern with continuity.

Interestingly, however, continuity in outcomes meant working differently for some. *"Well, it's really meant a complete change of working... everyone's got to really look at new structures to maintain what we do"* [I3.4]. Another explained that; *"you actually have to become more resourceful and work much harder at making sure those things are not de-railed"* [I2.3].

Changing sources of satisfaction

With the organisation perceived as *"paused and waiting"*, people talked about a *"hiatus"* in their work [I7.2] and frustration at projects not progressing at the rate they wanted [I6.2]. With that frustration, and the sheer difficulty of trying to work across organisational boundaries, some people had turned their attention to their individual projects as sources of work satisfaction; reporting successful outcomes and positive feelings, such as feeling *"pleased"*, *"proud"*, *"thrilled"* [I2.3; I8.2]. As one person concluded; *"when things go well, it just compensates for the rubbish in the course of the year really"* [I3.4].

The notable positive exception to the lack of organisation-wide change was the CoreDegree curriculum, which had reportedly *"come together"* [I2.3] and been *"embedded"* [I3.4; I11.2], so that it was seen as *"ticking over"* with *"the wave of change [having] gone through"* [I11.2]. Those assertions of success were related to not having *"daily battles"* about the curriculum changes, and also due to early positive feedback about the abilities of the new wave of students in their clinical rotations. Success was reported against planned outcomes in terms of: students' abilities as independent learners; their abilities to problem-solve in clinical situations; and acceptance by staff of the principle that the organisation owns its curricula:

"What I started to hear was; 'these students, their approach is good, they can problem-solve better'. And those were some of the specific things that we attempted to address, and also their interaction with staff, and their motivation to go out and find out new things - because the course is more about independent learning" [I11.2].

“I think on the whole most people accept now the institution, you know, the principle that the institution owns its curricula and that, as a team really, we are responsible for delivering that in the interest of the students, and therefore people can’t just do their own thing” [I2.3]

Not everything was perfect. One person commented that the tutor system was not yet *“as well ‘tacked down’ as I would like to have it” [I6.2]*, continuing that, while *“aspects”* of it are in place; *“it hasn’t progressed at the rate that I’d like”*. Overall, however, the CoreDegree curriculum change was seen as having progressed during period of research.

Participants suggested two reasons why this organisational change project had progressed when most others had stalled. First was the timing, *“a fortunate element to the level of completeness of our plans” [I11.2]* in that the majority of the change had happened before the impact of the spending cuts was felt. The second was the difficulty in turning back; *“The new course is the status quo and... if the new course is the only course, then you can’t really struggle against it anymore!” [I11.2]*. This could be an illustration of path dependence, where history matters and complex change is irreversible. However, there could also be psychological reasons. Perhaps, with all the uncertainty, people felt comfort in continuing with a familiar programme of change.

5.5.3.4 Changing orientation of organisational change

Phase 2 data indicated a qualitatively different orientation of organisational change at Educase. Keeping things going in a period of HE funding cuts necessitated internal change.

Growth to sustainability

The experience of change at Phase 1 indicated an orientation towards growth and development (detailed in 5.3); a virtuous circle, where the relative availability of funding stimulated growth (e.g. in student numbers), which provided more funds, enabling further growth. In light of the changing context for change, with a new political regime and economic pressures, research participants looking forward at Phase 1 were expecting to focus on survival, by making efficiencies (see 5.4).

Reflecting-back this increased focus on survival and efficiency in the TMT workshop at the end of Phase 1 prompted some lively discussion. They agreed that efficiency would be *“a priority”* and that survival is *“an issue for the whole sector”*. However, for many, their key concern was still to be moving forward, not just being reactive; questioning what the right things are to do; challenging what they don’t do (suggested, by one manager, to be their biggest challenge); and to *“work out what we want to do in a more challenging environment”*.

From a trajectory of growth and development, organisational change at Phase 2 became more focused on sustaining the status quo. One person described the changing focus of attention that this entailed; *“it is different qualitatively in that we are focusing more on how to do things, how to do less, or how to do things more cheaply, rather than how to do things better, which is what we were focused on before. I think it’s quite a major shift in thinking”* [I5.2].

Opportunity to necessity

At Phase 1, the impetus for organisational change tended to come from individuals, who were largely pursuing their interests, and importantly, ‘melding’ their individual interests with institutional interests; namely growth and development, and enhancing Educase’s external reputation. People looked outwards for opportunities (typically funding or accreditations) and exploiting external opportunities became the norm (noted in a 2009 QAA audit); part of the culture at Educase:

“I suppose that there has been a culture of, opportunism... when opportunities present themselves, taking the opportunities rather than not taking the opportunities” [I5.1].

“We grab the opportunity because it wasn’t going to come around again. There are additional student numbers being offered ‘There you go, that’s a fantastic opportunity, let’s take it’... because we could see how we would utilise that opportunity to facilitate our vision” [I6.1].

“We’ve taken advantage of initiatives that have come out, where they have really suited the skills that we’ve got at the organisation - and we’ve tended to be successful in those initiatives” [I13.1].

By Phase 2, rather than organisational change resulting from individuals scanning externally for opportunities, external events necessitated internal change. As one interviewee put it; *“it’s gone from, ‘what shall we do in the next 5 years guys?’ to ‘what do we have to do in the next 5 years?’”* [I5.2]. The impetus for organisational change was largely seen as externally driven by funding cuts and government policy changes and Educase managers had little choice about responding. Consequently attention was re-directed from external scanning for opportunities and became internally-focused. The organisational structure, previously an area of significant continuity for Educase, became a change target.

5.6 Postscript – the change continues

I returned to Educase in January 2012 to re-interview a Phase 1 interviewee who was unavailable for interview at Phase 2. He told a familiar story of late 2010 and early 2011, commenting; *“that six months from the summer to the Christmas was the really difficult time here”* [all quotes from I1.2]. Yet, on his return to Educase in late 2011 after several months’ absence, the interviewee observed a significant change:

"I came back and it was a totally different feeling. And so I saw the new CE and I just didn't hear a bad thing about him. I didn't hear one bad thing. Usually you would hear something. So I can't tell you why that is, but it was really noticeable".

Like other Phase 2 interviewees, he noted a different tone at the top, suggesting that the new CE *"understood where things were going wrong from a people, emotional intelligence type-way"*. He commented on the CE's increased visibility through *"little pow-wows with different sets of people"*³⁷; and a regular blog in which he shared personal insights with staff at Educase. The new CE had not *"walked in and stamped himself on everything"*, as had been widely expected, but instead was *"quietly getting on with it... [and] you feel like he knows what he's doing"*.

The interviewee highlighted three further qualitative differences without prompting. First, a much stronger focus on the student experience (discussed in 5.5); recently recognised by an external award for the most improved student satisfaction. Second, *"a swing towards teaching"*, which he felt had previously been overshadowed by research. He noted that talking about teaching and learning was *"now the common parlance around here"* and concluded; *"so that is actually an incredible change"*. Third, he highlighted an increase in job satisfaction arising from the student focus, because *"if your students are happy, and your students are doing well, then you've done a good job"*. Job satisfaction had also improved because *"people are talking to each other, people feel empowered"*. Emotionally, having gone from it feeling *"awful, actually an awful place to be"*, he concluded that now *"it's a much nicer place to work"*.

Overall, he suggested that what had felt like a number of *"fragmented"* change initiatives, started whilst the previous CE was in post, were now *"coming together"* and that there was now *"a real commitment to change"*; noting *"less questioning about why"* and more *"buy-in"*. He attributed this partly to agentic effects: noting the efforts of particular change leaders continuing to pursue their vision, *"even when it was unpopular he carried on with things"*; and also because *"it's like in times of war and difficulty, people need something to strive for, and they've come together"*. However he mainly described structural effects highlighting that *"some time has gone by"* enabling changes to *"happen slowly"* and *"settle in"* with change efforts starting to *"trickle through and become the norm"*. At Educase, he concluded *"it's never stagnant; it's always changing and evolving"*.

³⁷ The previous CE's success was also attributed to him sitting down and talking to everybody e.g. over lunch in the refectory; showing genuine interest, not just platitudes [I9.2]

5.7 Conclusion

This chapter presented a first-order analysis of the organisational case; integrating multiple participant perspectives and sources of data to tell a coherent story of organisational change. For ease of reference, this is summarised at Figure 16.

It positioned Educase as a small, but well-regarded, specialist HEI within the biomedical science field. It described Educase's cultural context; outlining the influences from the wider academic, professional and HE cultural contexts; and drawing attention to particular features of the Educase culture. The latter depicted an ambitious set of people, committed to both individual and institutional success and excellence, their competitive spirit driving hard work and high standards, who see themselves as more willing than their organisational peers to embrace change in terms of growth and development. Structural analyses illustrated a formal functional structure; an informal matrix for core deliverables; and a hierarchical culture, where people go up and down the organisation in terms of information flows and to exert influence. In a small world, everybody knows everybody and it is easy to access the top people. Change leaders are few in number and widely known. Typically those seen as having ideas for organisational change are also perceived as having the influence and power to enact it. Most are TMT members; organisational change is largely seen as their job.

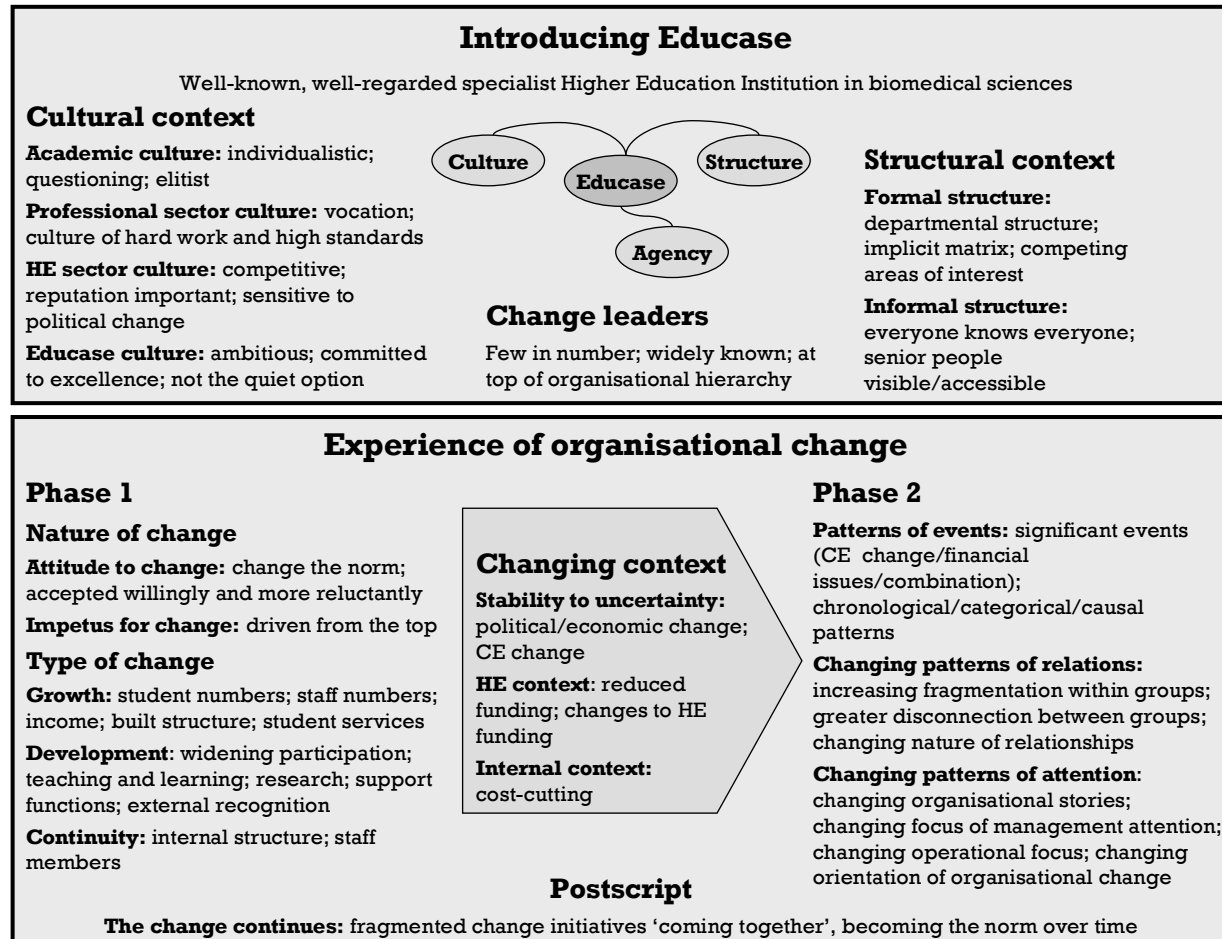
With the impetus for change coming from Chief Executives and individuals willing to innovate, Educase has experienced a great deal of change, and people are largely accepting of that. Looking back from Phase 1, the majority of change was characterised as growth (e.g. student and staff numbers, income, student services, infrastructure) and development (e.g. in WP, teaching and learning, research, support functions, external recognition). Yet Educase was perceived to have continuity in personnel, especially at senior levels, and organisational structure.

During the research, there was a changing context for organisational change at Educase. The political and economic environment changed from stability to uncertainty; there was a radical shake-up of the HE sector; and unexpected movement at the top of the institution. Reflecting that, people's expectations of organisational change looking forwards from Phase 1 was markedly different to their experience of change.

Analyses of participants' experience of organisational change since Phase 1 highlighted emerging patterns in three domains of organisational change: patterns of events; 'changing patterns of relations'; and 'changing patterns of attention'. The most significant events (temporal acts and activities) during the period were considered to be the combination of financial constraints and the change of CE. Interviewees described patterns of events in chronological, categorical (e.g. by

type, importance, degree of forward planning) and causal terms (e.g. what led to what); laying out chains of events. Thematic analyses asserted that patterns of relations had changed, based on reports of increasing fragmentation; greater disconnection; and the changing nature of relationships at Educase. They also asserted that patterns of attention had changed, noting: changing organisational stories; changing focus of management attention; changing operational focus; and the changing orientation of organisational change at Educase. Some of the quotes in this section illustrated just how difficult the experience of change can be for organisational members, including change leaders. A postscript, which described fragmented initiatives coming together, reminded us of the continuous nature of organisational change and the transitory nature of its outcomes.

Figure 16: The story of organisational change



Chapter 6: Individual results and analysis

*“If you’re not going forwards you’re going backwards...
horizons are changing so you need to adapt”*

(Educase manager)

6.1 Overview

Chapter 6 explores the embedded cases (Yin, 2009) of individual change leaders within Educase. Stake (2006: 6) calls embedded cases mini-cases and suggests that *“each mini-case then will be constrained by its representation of or relationship to the [case]”*; here the overall case of organisational change at Educase.

Section 6.2 introduces the cases of four change leaders at Educase. It describes how these cases were selected and introduces the characters. The four embedded cases are richly informed by the *entire material* collected at Educase. Detailed character narratives (5-6 pages each), which drew together data about that character from multiple informants and methods, were developed as part of the analysis of each embedded case. These narratives have not been included in their entirety because their verisimilitude means that *“the cloak of anonymity... may not work with insiders who can easily locate the individuals concerned”* (Punch, 1994: 92). This issue is considered further in Chapter 8. Instead, the nature of the characters’ positions and their role in organisational change is discussed in general terms, followed by a paragraph introducing each person. Further steps taken to preserve anonymity include grouping responses, where no cross-case comparison is made, and removing pseudonyms when using cross-case comparisons.

Section 6.3 introduces the Phase 1 context for change at an individual level. It discusses change goals (which it groups) and compares those of the four featured change leaders with those of the wider group of change active research participants. It also compares how the most active change leaders described their approach to effecting change.

Section 6.4 then addresses the empirical research questions using evidence from the four embedded cases. It considers the content and nature of change leader noticing; how they interpret emerging patterns in language; and the nature of their responses. It then considers the effect of emerging patterns on how change leaders pursued their Phase 1 goals for change. To conclude, section 6.5 summarises the key points.

6.2 Introducing the cases

6.2.1 Selection

Those featured in the embedded cases (Peter, Richard, Justin and Jim; all pseudonyms³⁸) are seen by colleagues as some of the most active and influential change leaders at Educase. All research participants can be considered change leaders, in a general sense, since they were all identified by colleagues (through snowball sampling) as active in organisational change. This population of 15 was reduced to six in the selection of the embedded cases by filtering out (1) those people not interviewed at both Phases, and (2) those whose active involvement in organisational change was confined to activities in their own department (established through interviews).

The final four were selected after Phase 2 data collection by triangulating interview data with the SNA and the change leader survey (see Table 25). Two people were not selected for embedded cases as there was less compelling evidence from the three data sources, compared to those selected, that they were active and influential in organisational change throughout the period of research. Drawing the line under the most active and influential four offers some diversity in the embedded cases used to address the research questions.

6.2.2 The characters

The four embedded cases reported in this chapter are all senior managers. While the selection process allowed for informal change leaders to be identified, unsurprisingly, in a hierarchical organisation like Educase, those identified as ‘most influential’ held formal leadership positions. Three are from the TMT; one is from the top 100. All have worked at Educase for five years or more. Two have academic responsibilities; two have non-academic responsibilities. Two manage large teams; however our interest is in them as *individuals*.

Table 25 illustrates that Peter and Richard are both perceived by colleagues as highly active, highly connected, change leaders at Educase. The change leader survey indicates that both are seen as having ideas and shaping the agenda for organisational change, and have the power to say ‘yes’ to change. Justin is also seen as active in organisational change and qualitative comments suggest he has power in influencing change at Educase: through his hierarchical position; relationships with key players in the TMT; and control of financial resources. Jim is perceived as interested in organisational change and played an important role in connecting the social networks. Although he did not feature in the change leader survey, another interviewee suggested he has “*loads of power*” to effect change through his role.

³⁸ As Chapter 5 notes, while research participants included males and females, male pronouns/pseudonyms are used throughout

Table 25: 'Most active' change leaders

	Peter	Richard	Justin	Jim
Qualitative data	Seen as taking “ <i>responsibility to lead new imperatives</i> ”; described as a driving force and champion; willing to “ <i>deal with intractable problems</i> ”	Considered as one of the most active people in change: with visionary ideas; someone whose support was essential; “ <i>he’s important</i> ” to speak to	Seen as having power/authority in organisational change; due to position, control of financial resources, key relationships with senior people	Seen as promoting a lot of change; worked on cross-organisational projects; does important work for Educase and has some power
Social networks analysis	Highly consulted, highly utilised node. Top 3 for all 5 questions.	Highly consulted, highly utilised node. Top 3 for 4 questions.	Plays a minor part in the social networks for change. But, did not complete SNA, so influence may be understated	Important node in the networks for change. Most utilised node for one network, 4 th and 6 th in two others
Change leader survey	Top 5 across all 3 questions	Top 5 across all 3 questions	Top 5 for 2 questions	Did not feature

Beyond their senior roles and a relatively high degree of activity and influence in organisational change across Educase, the four embedded cases display few similarities. For example, in more fine-grained analyses of Phase 1 data (presented in 6.3), the most active change leaders differed in their priorities for change and their approach to organisational change at Educase. At Phase 2, they differed in their involvement in organisational change during the period of real-time study; in their perception of emerging patterns; and in their responses to emerging organisational patterns. Such diversity is not a sampling anomaly. It was also apparent within the population of 15 research participants, and we would expect to find heterogeneity of individual persons at a fine-grained level of analysis within any organisational case.

Introducing Peter

Peter is an energetic character, often seen dashing around Educase talking with various people. Others have told him that he is *“far too passionate when it comes to Educase”*. Peter was seen by many people as key to change and having *“taken some responsibility to lead new imperatives”*. Several people described him as a driving force and saw him as championing various initiatives which had led to significant organisational change. It was suggested that he was the person to *“deal with intractable problems that nobody else wants to deal with”*. There were several examples of him doing just that, despite it being tough going. Immediate colleagues, and others, spoke well of Peter. *“He’s a good guy”*, I was told. One colleague called him *“inclusive”* and another suggested that he had *“a sufficient overview of what was going on, to move outside [his] domain”*.

Introducing Richard

Richard is another energetic character, full of ideas, described as a visionary thinker. He is well-known and well-connected both inside and outside Educase. Richard appears to think deeply about how things work at Educase; has clear convictions about what he thinks needs to change; and is not afraid of holding opposing ideas to his colleagues. In interviews, Richard was seen as having substantial power at Educase, often described as a driving force behind major change, putting his energy into *“leading the charge”*. He was also said to have done a good job in bringing many people on board with some important changes. Winning Richard’s support and having him *“defend... the stuff we do to the hilt”* was seen by others to be an important endorsement, and not always easy to gain, since Richard was *“somebody who needs a lot of evidence”*. However, he was described as *“really fair”* and less of a political player than some of his contemporaries.

Introducing Justin

Justin was clear and passionate in both our meetings about his personal view of the strategic priorities for Educase. How those goals might be achieved, he admitted, was *“a matter for debate”*. He commented; *“I think it is very difficult to effect change unilaterally, and arguably you shouldn’t, but as a*

member of a group then I think you can begin to break down the barriers and, at that level, I think people are much more attuned to what I am saying". Justin is unafraid to be controversial and challenge the status quo, by his own admission, willing to *"mess everything up a bit"*. Often described by others as *"an interesting chap"*; someone who brings *"an interesting perspective on things"*.

Introducing Jim

Jim is well-regarded by his close colleagues. He is seen as doing important work for Educase and, it was suggested, having some power. Colleagues have found him to be *"very approachable"* and one described being able to sit in Jim's office and let off steam after a difficult day. It was suggested that Jim would be interested in my research. He was. At our first meeting Jim said that he was intrigued by my research *"because I often contrast in my head... how Educase sets about things compared to how other places set about things"*. Another colleague thought he would bring an interesting perspective from his experience and because *"he's certainly promoted a lot of change since he's been here"*.

(For the examiners only: fuller character narratives are included at Appendix J).

6.3 Context for change leadership

This section illustrates the context for change leadership at Phase 1 by outlining change leaders' espoused change goals and their expected approach to change.

6.3.1 Change goals

The four most active change leaders (henceforth 'most active') expressed five types of change goal at Phase 1: student-related goals (4 people); organisational efficiency/effectiveness goals (3 people); culture change goals (2 people); reputational goals (2 people); and survival goals (1 person); summarised in the shaded cells at Table 26. These categories also captured the change goals expressed by others active in organisational change (i.e. the other interviewees); summarised in the clear cells at Table 26.

Within categories there are a diverse range of priorities. For example, student-related goals include engaging better with students, particularly around change; expanding student numbers to address perceptions of unequal status between courses; and expanding student services. Where resource is plentiful, it may be possible to pursue those goals simultaneously. Within that category, however, there are conflicting views of how student-related improvements could be made e.g. diversifying outside Educase's specialist professional area, or maintaining its specialist focus. Even with plentiful resource, there is no easy way to reconcile opposing strategic goals.

Table 26: Change leader change goals

	Goals
Student-related goals	<ul style="list-style-type: none"> Engage better with students, especially about change, so they <i>“are more exposed to what we are doing and why”</i> Focus on clinical problem solving, teaching students how to think; by engaging more academic staff in that way of teaching Expand student numbers on smaller courses, so those students <i>“feel that they were more on a similar footing”</i> to CoreDegree Expand student numbers to afford better services for students Diversify student body e.g. through international recruitment Broaden student horizons/learning styles/course portfolio beyond specialist professional area Provide better financial advice for students
	<ul style="list-style-type: none"> More feedback/support/improved course materials for students Final planning/implementation/reflection/analysis (CoreDegree chg). Consolidate and build on WP activity, introduce new activities Diversify student base (demographics); international students/staff Change site, atmosphere and how students interact (learning/ socialising) through improved student facilities/services Maintain focus on specialist professional area
Organisational efficiency/ effectiveness	<ul style="list-style-type: none"> Integration across Educase; reduction of tensions through high-level structural change and resource redistribution Expand student numbers for economies of scale to maximise efficiencies Deal with <i>“waste”</i> to <i>“unlock resource to continue to take us forward”</i> by: <ul style="list-style-type: none"> automation/streamlining of business processes developing integrated functions to avoid <i>“little pockets of repeated work”</i> developing administrative economies of scale in course portfolio
	<ul style="list-style-type: none"> Income growth/diversification to <i>“make us more resilient”</i>: <ul style="list-style-type: none"> international students; develop existing markets/new markets fundraising income; larger campaigns, business involvement research income; broaden funding base incl. international sources more clinical income Reduce staff costs
Culture change	<ul style="list-style-type: none"> More women at senior levels Culture change in teaching; acceptance that the curriculum is owned by Educase, teaching seen as a team activity
	<ul style="list-style-type: none"> Recognise need to develop styles of learning to support diverse students e.g. international, WP Staff acceptance of greater internationalisation Greater transparency/strategic clarity to engage business donors Bringing through and empowering new leaders
Reputational goals	<ul style="list-style-type: none"> For Educase <i>“to become a centre of excellence that’s internationally recognised”</i>; seen as good place to work due to <i>“more people... greater interchange of ideas”</i> Marketing non CoreDegree course by building Educase’s science reputation around its biomedical core; maintaining student intake
	<ul style="list-style-type: none"> To be best in every area of activity; recognised as best institution in its specialist professional sector in UK, Europe, globally Positive messages re: continuing high quality to students/staff etc.
Survival/ continuity	<ul style="list-style-type: none"> Foundation: <i>“to survive sufficiently to... still move forward”</i>
	<ul style="list-style-type: none"> Continued development/growth; hold to mission/objectives; fund it Change or die: managing organisational change in the HE sector <i>“Working model we can all sign up to”</i> for long-term stability/growth

Key: Shaded=’most active’ change leaders / Clear=other interviewees

In relation to the ‘Organisational efficiency/effectiveness’ goals in Table 26, there is a qualitative difference between the concerns of the most active and the other change leaders. The wider group are concerned to maintain income growth and diversity, in various ways, and to cut staff costs; whereas the most active change leaders are more focused on changing ways of working e.g. integration, streamlining processes, dealing with waste. While many change leaders are concerned with sustaining Educase’s trajectory of first-order change in terms of continued growth and development, the most active are seeking second-order change.

There was also a difference between the concerns of the most active change leaders and others in terms of ‘Survival/continuity’; with just one comment from the former group in this category, but several from the wider group. This may reflect the greater concerns of the most active change leaders’ with how survival/continuity is achieved e.g. by changing ways of working to enhance organisational efficiency/effectiveness.

Although the most active change leaders were clear about their goals for organisational change, this was not the case for everyone in the wider group. For example, one person responded to my question about what changes they were looking for at Educase over the next year by saying; *“that’s a heavy one... I’m just going to have to think about that one”*.

Overall, Table 26 illustrates some broad areas of priority in terms of change goals at Phase 1, but some diversity in how those priorities are expressed and some differing, sometimes conflicting, views on how they may be achieved.

6.3.2 Change approach

The four most active change leaders described a largely informal, adaptive approach to organisational change:

“If you’re not going forwards you’re going backwards... horizons are changing so you need to adapt”
[Peter].

It’s *“all about the people”* and change can be *“top-down”* or *“bubble-up”*, depending on the people [Richard].

“I think there is now a willingness to adapt and change and an acknowledgement that we need to change” [Justin].

“What’s obvious gets done in the end” without being *“over-managed”*; *“some of it is quite informal, but it works... and is powerful”* [Jim].

However, beyond a general view that organisational change at Educase is largely informal and adaptive, no strong themes emerged in terms of change leadership approach. Table 27 illustrates how the four most active change leaders described their individual approach to change in terms of seven topics arising from their accounts: vision; espoused mental model of change; role; influencing; risk taking; adaptation; and style. Their approaches are richly described using their own words. They are not grouped so that a coherent individual account can be read in each column, and to enable comparison; (pseudonyms removed to protect anonymity). Doing so reveals four quite different approaches/styles:

Change leader **A** has a clear mental model of change and his role within it; i.e. working fairly fluidly “*around the edges*” to establish a vision that instinctively feels right and to enlist key decision makers and influencers.

B describes a more active “*have a go*” style of harnessing ideas to create a vision; influencing; trying things out; then adapting or reverting if necessary.

C is willing to throw in controversial ideas and offer a different point of view; happy to be challenged by colleagues and to adapt; the resulting vision is the product of the group. C is then focused on the finish, seeking to convince others and even “*roll up his sleeves and do things*” in order to get there.

D brings a complementary perspective to vision-setting and designing implementation; and keeps a keen focus on the target.

The table highlights that change leaders A&B felt they had a key part to play in creating the vision for change, while C&D described a shaping role by contributing alternative perspectives. Only A described an “*espoused theory*” of change, although B’s descriptions indicates a coherent “*theory in use*” around experimentation (Argyris and Schön, 1978). While C and D focused on the finish, no clear process theory in use was evident. All four described their change role differently; but A&B stated their view of their role more clearly.

In relation to influencing others, C’s focus was on influencing his peers, while A&B each described a more widespread strategy for engagement. B&C considered themselves (more) willing to risk making mistakes and to adapt.

Table 27: Change leadership approach

	A	B	C	D
Vision/ideas for change	<i>"[I am] the person that tries to create the vision and explain it to others".</i>	<i>"You have to have a vision... I'm elaborating change that I think should happen". "Part of what I feel I need to be... is the product of various people's ideas. So they are not all my ideas... [the job] is to harness and distil that... into the right sort of vision"</i>	<i>"I would look to mess everything up a bit". "I was able to bring that sort of experience in that none of them have got".</i>	<i>"I've got that different way of looking at things" - brings breadth of experience and an ability to stand back from the detail to see the bigger picture</i>
Model of change	<i>"As in any complex system you can try and perturb it a bit and to move [it] the way you want".</i>			
Change role	<i>"My role is essentially trying to identify things that will move the system in the direction of my vision - so I see myself as... an enabler and persuader".</i>	<i>"My role is influencing who and what I think I need to, to make it happen".</i>	<i>"I think it is very difficult to effect change unilaterally, and arguably you shouldn't..."</i>	<i>"When you get to the, 'we want to implement this', I think I'm an important complementary ingredient in the design".</i>
Influencing/engagement	<i>"That involves trying to get as many of the management team on side... but then going down, out... to some of the middle managers, and in some cases, the <u>unofficial</u> leaders within departments, at least to try and influence it that way. Because... there are <u>key</u> individuals... who can sway a department even though they don't have official roles. If you have them on board, that's much easier".</i>	<i>"You get what you think is a workable solution, a workable level of engagement... and then you move forward... and it will be a lot easier to sell it to the rest of them later".</i>	<i>"...but as a member of a group then I think you can begin to break down the barriers and, at that level, I think people are much more attuned to what I am saying".</i>	

Table 27(2)

	A	B	C	D
Risk taking		<i>"I'm less concerned about making mistakes" than colleagues/peers at other HEIs.</i>	With colleagues: <i>"I am quite happy to be shot down in flames. I'm not particularly embarrassed about putting ideas forward and some of them run and some don't".</i>	
Adaptation		<i>"If you can't [convince enough people] ... you think, I've got to re-think this, I'm wrong.... I've done that plenty of times".</i> <i>"If you are wrong ... you back off or you go back to what you were doing before".</i> <i>"I think you have to be able to be convinced otherwise, and people need to know that... so they can see that you can change and you can modify".</i>	<i>"I think that what I like most is the ability of my colleagues, and hopefully me as well, to adapt quickly".</i>	
Style	<i>"I guess that a lot of what I do is based on... a gut instinct that it's going in the right direction... a feeling that this was the right thing to do".</i>	<i>"If you wait until it's perfect you'll be there forever... so let's have a go, let's just get in and start".</i>	<i>"I'm much more focused on the <u>finish</u> than on the getting there".</i> <i>"I'm quite happy to roll up my sleeves and do things".</i>	Being <i>"quite a ruthless target manager and prioritise[ing]; because, whilst we're small, we're very complex".</i>

6.4 Emerging patterns

This section considers the embedded cases against the research questions:

- 3a) What emerging organisational patterns and transitory outcomes do change leaders notice (6.4.1) and interpret in language (6.4.2)?
- 3b) How do change leaders respond to emerging organisational patterns and transitory outcomes (6.4.3) as they pursue change in organisations (6.4.4)?

6.4.1 Noticing emerging patterns

The 'local' content of noticing

Chapter 5 considered question 3a) at an organisational level, highlighting patterns of events; 'changing patterns of relations'; and 'changing patterns of attention'. These emerging organisational patterns reflect what change leaders, in the wider sense (i.e. all the interviewees), noticed and interpreted in language. They already include insights from the most active change leaders. At this individual level of analysis it is helpful, therefore, to comment on the relationship between the content of individual change leaders' noticing and those overall patterns.

At both Phases 1 and 2, individual change leaders spent most time discussing (1) issues they were concerned *with* (i.e. where they had direct involvement); and (2) issues which they were most concerned *about* (whether or not they were directly involved). For example, while everyone mentioned the change of CE at Phase 2, the people who talked about the selection process were either directly involved in it, or felt affected by it. Turning off the central heating, which affected all staff, was given significant emphasis by one person who personally felt negatively affected by it and another who was very concerned about its impact on students. One of the most active change leaders was particularly concerned about the "*rumour index*" which, he suggested, indicated "*the level of anxiety of the troops*" and therefore made it his business to "*counter the rumours with information transfer, in various different ways, that at least provides certain levels of facts*".

Case data suggests that change leaders notice patterns which are 'local' to them i.e. those which they are concerned with or about. 'Local' reminds us that change leaders are insiders who have only partial 'sight' of the system of which they are part. (As Chapter 3 outlines, in CAS, agents interact locally i.e. each agent interacts with a fraction of the total agents). In this regard, no particular differences were evident between the most active change leaders and the wider group.

The nature of noticing

At this individual level of analysis, question 3a) can be addressed at a further level of abstraction by considering what kinds of change individual change leaders noticed.

Table 28 categorises the content of what the most active change leaders noticed at Phase 2 into four groups. It illustrates that they noticed (i) what was **new** in the period (e.g. events/reactions); and (ii) **differences** over time e.g. between the two research periods. Some change leaders also noticed differences compared to **expectations** e.g. things which differed from what they anticipated at Phase 1; or which unfolded in ways which were at odds with their expectations (iii). Some noticed **continuities** i.e. choosing to highlight what had *not* changed during the period (iv).

Chapter 2 noted that organisational change can be defined as “*difference in form, quality, or state over time in an organizational entity*” (Van De Ven and Poole, 1995: 512); and that “*change can be measured by observing the same entity over two or more points in time on a set of characteristics and then observing the differences over time in these characteristics*” (Van De Ven and Sun, 2011: 60). This temporal orientation is evident in change leaders’ observations about what was new in the period (i); and differences between the two research periods (ii) in Table 28.

However, this study indicates that ‘insiders’ also have an attitudinal orientation to change. For example, the comment in (iii) that the tutor system was not fully in place at Phase 2 does not denote a change compared to Phase 1 (there was no tutor system at Phase 1 either), but against that person’s Phase 1 *expectation* that it would be fully operational by Phase 2, and his frustration that this was not yet the case. Similarly, the observation that student concerns were the same at Phase 2 reflected that person’s earlier *expectation* and worry that students may become more demanding with the changing fees regime, and his current satisfaction that they have not. Two people talked about their relief that there was no time gap between CEs, as both had expected, and feared, a period of interregnum.

These examples illustrate that change leaders have expectations and notice emerging patterns which positively/negatively conflict with their expectations. Further to Van de Ven and colleagues (Van De Ven and Poole, 1995; Van De Ven and Sun, 2011), we can conclude that ‘insiders’ may also have an attitudinal orientation to change whereby they ‘measure’ organisational change against their own expectations.

Table 28: The nature of change leader noticing

Category	Examples
(i) New in the period	<p>New CE: style/impact /taking time to get to know Educase</p> <p>Financial:</p> <ul style="list-style-type: none"> Internal budget problems/surprise overspends Cost reductions/severance scheme/turned off heating External tuition fees <p>Staff reactions:</p> <ul style="list-style-type: none"> Impact of events/reduced funding CE change; recruitment process impact Management reactions to financial instability New buildings and staff reactions to them
(ii) Differences (Phase 1-2)	<p>Greater uncertainty:</p> <ul style="list-style-type: none"> More external uncertainty More internal uncertainty; people vulnerable/unsettled <i>“Mindset of the community”</i> anxious/frustrated/fearful of unknown Staff morale deteriorated Waiting for (CE) direction <p>Communication problems:</p> <ul style="list-style-type: none"> Internal disconnections/communications gaps More rumours, spreading faster, more <i>“outlandish”</i> More confusion about senior responsibilities <p>Changing relationships:</p> <ul style="list-style-type: none"> Relations within TMT Breakdowns in trust Changing power relations More internal politics (e.g. dept level)/ <i>“disappearing”</i> in other areas <p>Changing emphases:</p> <ul style="list-style-type: none"> More emphasis on NSS More focus on teaching Focus on commercial issues Focus of management time/attention Management, not academic priorities determining spend More protective of own areas / more risk aversion <p>Composition:</p> <ul style="list-style-type: none"> Structures at lower levels More student diversity esp. international Governing body composition/attitude <p>Other:</p> <ul style="list-style-type: none"> Working harder; more work/more occupied/longer hours Better facilities Reduced (paid) clinical work
(iii) Different to expected	<ul style="list-style-type: none"> (Faster) pace sector change No CE interregnum Internal <i>“inconsistencies in the system”</i> (across departments) Process of proposed change to no. academic departments Management of severance scheme Tutor system not in place
(iv) Not different	<ul style="list-style-type: none"> Still investing/wanting to move forward Educase reputation Student concerns/provision of service, kept focus on students Research opportunities No operational level change

6.4.2 Interpreting emerging patterns

Interpreting organisational patterns of change in language invites comparison. In addition to the temporal comparisons and comparisons against expectations (discussed above), the most active change leaders made interpretive judgements about whether particular patterns/outcomes were positive or negative, with comments like *“that’s not a great situation to be in”* and, conversely, *“[it’s] looking quite rosy”*. They also made judgements about the degree of difficulty presented by patterns of events e.g. suggesting *“it was the worst possible timing”* (referring to the combination of financial difficulties and the change of CE); or referring to emergent outcomes as *“silly difficulties”*. Examples of these interpretive judgements are illustrated overleaf in Table 29 (i) and (ii).

Change leaders also made comparisons with other instances e.g. *“to me that was the low point”* and *“it could’ve been a whole lot worse”*; with expectations e.g. *“that kind of thing happens to every organisation”*; and through metaphorical language e.g. *“the institution is looking over its shoulder more”*. Examples of these comparative judgements are illustrated at (iii) and (iv) in Table 29.

The use of comparison (including judgements) highlights the importance of perspective in interpreting emerging patterns. For example, the comments *“it was the worst possible timing”* and *“it wasn’t a fundamental concern”* were judgements made by two change leaders on the same (unexpected) event. For the first change leader, the consequences he described as a result of the event meant that, from his perspective, *“it was the worst possible timing”*. Yet, for the second change leader, *“it wasn’t a fundamental concern”*, at least not at our Phase 2 interview, because there were other things he was more concerned about. However, it was not necessarily just immediate comparisons between events which led to these differing interpretations. The two individuals also had different career experiences. One had worked within other HEIs, so perhaps had a different frame of reference, maybe even prior experience of a similar event, in suggesting *“it wasn’t a fundamental concern”*. Yet, within Educase’s history, it might indeed be considered *“the worst possible timing”*.

The point of such conjecture is not normative i.e. to establish whether or not we should regard the event as a fundamental concern, but a reminder that interpretation is coloured by experience. Therefore agent micro-diversity is likely to affect change leaders’ interpretations of emerging organisational patterns.

These findings suggest that we should not expect a high degree of certainty and agreement over the emerging organisational patterns that change leaders notice and how they interpret them in language. Therefore, if your aim is to make sense of emerging organisational patterns and transitory outcomes, it is helpful to obtain multiple perspectives.

Table 29: Interpreting change patterns and outcomes

Category	Examples
(i) Judgements (+ve/-ve)	<p>Positive:</p> <ul style="list-style-type: none"> ▪ <i>“looking quite rosy”</i> ▪ <i>“which is kind of helpful”</i> ▪ <i>“so that’s good... that’s a positive”</i> <p>Balanced:</p> <ul style="list-style-type: none"> ▪ <i>“that’s the good and the bad”</i> ▪ <i>“whether it was detrimental... we have to wait and see”</i> <p>Negative:</p> <ul style="list-style-type: none"> ▪ <i>“that’s not a great situation to be in”</i> ▪ <i>“they just blew it”</i> ▪ <i>“it made everyone else feel unhappy”</i> ▪ <i>“it was a terrible thing”</i> ▪ <i>“failed miserably”</i>
(ii) Judgements (difficulty)	<ul style="list-style-type: none"> ▪ <i>“the situation is relatively straightforward”</i> ▪ <i>“that’s part of the challenge”</i> ▪ <i>“continuing to cope”</i> ▪ <i>“it was the worst possible timing”</i> ▪ <i>“biggest challenges”</i> ▪ <i>“quite difficult to do”</i> ▪ <i>“[not] coping particularly well”</i> ▪ <i>“it wasn’t a fundamental concern”</i> ▪ <i>“silly difficulties”</i>
(iii) Comparison (activities/ expectation)	<ul style="list-style-type: none"> ▪ <i>“it just didn’t resemble reality”</i> ▪ <i>“more consistent with modern governance”</i> ▪ <i>“another change that’s just naturally come over the place”</i> ▪ <i>“we had an extraordinary thing”</i> ▪ <i>“to me that was the low point”</i> ▪ <i>“that kind of thing happens to every organisation”</i> ▪ <i>“it’s left people feeling more vulnerable than they would ordinarily have done”</i> ▪ <i>“it could’ve been a whole lot worse”</i>
(iv) Comparison (analogy/ metaphor)	<ul style="list-style-type: none"> ▪ <i>“rumours are flying”</i> ▪ <i>“it’s ratcheted up everyone’s anxiety index”</i> ▪ <i>“the institution is looking over its shoulder more”</i> ▪ <i>“well everything hit the fan at that point”</i> ▪ <i>“they had spent their ammunition”</i> ▪ <i>“it was catastrophic”</i> ▪ <i>“waiting with baited breath”</i> ▪ <i>“everything gravitates to the space”</i> ▪ <i>“we didn’t sit around in limbo-land!”</i> ▪ <i>“bolt from the blue”</i> ▪ <i>“I backed the right winners”</i> ▪ <i>“that’s gone into the sand”</i>

6.4.3 Responding to emerging patterns

This micro-level analysis considers how individual change leaders respond to the emerging organisational patterns which they notice and interpret in language.

As Table 30 (overleaf) illustrates, change leaders in the embedded cases respond to emerging organisational patterns in terms of how they feel, think and act; i.e. they demonstrate affective, cognitive and behavioural responses. They expressed positive/negatively-valenced emotions such as pleasure, disappointment, frustration and shock. That there are more examples of negative affective responses is indicative of the tone at Phase 2, and illustrates something of the emotional toll on change leaders.

Change leaders' cognitive responses to emerging organisational patterns indicated how they were thinking differently. One manager commented, *"I'm more worried about my staff"*; another explained *"I'm probably just a little less confident in the competence of some of the people"*. Questioning, reflection and learning are also apparent in change leaders' cognitive responses. As one of the most active change leaders explained; *"what's happened, for me anyway, certainly, in the twelve months, is that I think I have a, well, I have a better awareness of what I was unaware of. ... So there is some inconsistency in the system that, as I look at the system more holistically I think, I am looking and I'm thinking... why did we do that? Why did we ever do that?"* This reminds us that human agents are reflexive i.e. aware of the systems of which they are part.

Behavioural responses included examples of adaptive behaviour e.g. adapting process *"almost on a daily basis"* in response to feedback; and adapting personal priorities to correspond with new institutional priorities (this behaviour was also apparent at Phase 1 where change leaders, from within and outside this 'most active' group, discussed melding individual and institutional priorities). In the above examples this particular change leader sought to go with the emerging flow, as he perceived it.

However, other examples of adaptive behaviour at the individual level, *"become[ing] more resourceful"* and putting in more hours, signified attempts by a change leader to counter behaviour he was unhappy with. Another tried more proactive communication with particular individuals in order to address some perceived communication gaps between different groups. A third change leader reported *"coming at it [a problem] from a couple of different ways"* to pursue one of his change goals which *"hasn't progressed at the rate that I'd like"*.

Table 30: 'Most active' change leader responses to emerging organisational patterns

Category	Examples
How they feel	<p>Positive:</p> <ul style="list-style-type: none"> ▪ <i>"I'm pleased"</i> ▪ Hopeful: <i>"I think it will personally and professionally renew me"</i> ▪ <i>"I'm very pleased... I'm just thrilled"</i> <p>Negative:</p> <ul style="list-style-type: none"> ▪ <i>"I get very impatient"</i> ▪ <i>"I'm a little more concerned"</i> ▪ <i>"I was disappointed"</i> ▪ <i>"I am frustrated"</i> ▪ <i>"I'm sad about that"</i> ▪ <i>"[it's been] very hard"</i> ▪ <i>"I feel [gasp of shock] myself at times"</i> ▪ <i>"it's really annoying"</i>
How they think	<ul style="list-style-type: none"> ▪ <i>"I'm probably just a little less confident in the competence of some of the people"</i> ▪ <i>"I have a better awareness of what I was unaware of"</i> ▪ <i>"I still feel that we have the potential to do an awful lot"</i> ▪ <i>"Why did we ever do that?"</i> ▪ <i>"I think it could have been better managed"</i> ▪ <i>"it's a question I'm asking myself at the moment"</i> ▪ <i>"it will be interesting to see"</i> ▪ <i>"[adaptation] to the way students think"</i> ▪ <i>"I just do not understand why"</i> ▪ <i>"I think there needs to be something fairly quickly"</i> ▪ <i>"I'm more worried about my staff"</i> ▪ <i>"I backed the right winners"</i> ▪ <i>"I can absolutely empathise with their perspective"</i>
How they act	<ul style="list-style-type: none"> ▪ <i>"I'm coming at it from a couple of different ways"</i> ▪ <i>"counter the rumours with information transfer"</i> ▪ <i>"I'll chase it up and I'll get back to you"</i> ▪ <i>"it just gave me pause to think"</i> ▪ <i>"I put in a lot more hours"</i> ▪ <i>"you actually have to become more resourceful"</i> ▪ <i>"you had to really fight"</i> ▪ Adapting [process] <i>"almost on a daily basis"</i> ▪ <i>"I'm working less"</i> i.e. leaving work earlier ▪ <i>"I stopped it because it seemed unfair to saddle a new CE with something that was so new"</i> ▪ <i>"[personal priorities] adapted to what I've perceived to be the [new] institutional priorities"</i> ▪ <i>"we're rushing around trying to fix it now"</i> ▪ Tenacious; kept going <i>"no matter how horrible it was getting"</i> ▪ Fostering a <i>"we've got to work together"</i> approach ▪ More proactive in communication with other groups

Behavioural responses also reflect examples of a deliberate *lack* of adaptation. One change leader described keeping going *"no matter how horrible it was getting"*. Another described having to *"really fight"* against some proposed decisions where he was concerned about wider implications for Educase, commenting; *"I put in a ridiculous amount of hours trying to keep things as I saw it going"*.

The data indicates that individuals may choose to adapt their behaviour, or not; and that adaptive behaviour may be in service of organisational change, or organisational continuity. It also indicates that responses are ‘local’ i.e. responses to emerging organisational patterns are not uniform, but are reflective of agent micro-diversity e.g. in terms of goals or previous experience.

6.4.4 Effect of emerging patterns on the pursuit of change

The previous section highlighted that change leaders respond to emerging organisational patterns in terms of how they feel, think and act. This section considers the effect of emerging organisational patterns on the change that the most active change leaders were pursuing.

One change leader reported taking on some new work and stopping other work in response to new events. He also reported a negative impact on projects which others might see as *“nice to have”*, explaining; *“it is moving forward slowly, but it isn’t getting the kind of buy-in that I’d hoped”* and commenting; *“maybe I’m just being a bit impatient on those matters”*. Another also bemoaned the slower pace of change, commenting; *“it is moving in the right direction, it’s just slower than I was hoping”*; describing it as *“a much slower burn”* and explaining *“it’s just taken too long”*. He found organisation-wide projects more difficult, suggesting that the *“capacity to implement strategic planning change has been relatively small – because some of it was quite controversial, and some of it was financial”*.

This last point was echoed by the other two change leaders, both of whom reported that they had achieved less than expected in terms of organisation-wide change. One explained he had *“been able to achieve less”* than hoped at Phase 1; the other, similarly, commented; *“I don’t feel I have achieved as much as I used to”* and highlighted one particular organisational project which had effectively stalled. Both had turned attention to their own areas, reporting successes and satisfaction with their *“individual projects”*. One used words like pleased, proud, nice, good, interesting, delightful in describing these projects; calling results a bonus, successful, saying they had come together, that he had received good feedback, and noticed a beneficial shift. The other change leader described being pleased, thrilled and amazed with work in his area. Change goals were either *“done”* or *“on the way”*. Both spoke with greater energy and enthusiasm about their own areas of work.

Overall, what we see here is that the emerging organisational patterns at Educase typically slowed down organisational change initiatives pursued by the most active change leaders. Most had achieved less than they had hoped in relation to cross-organisational change over the period. Some projects stopped altogether; either as a result of a deliberate decision by one of the change leaders, or because progress stalled and they diverted their attention elsewhere.

6.5 Conclusion

This chapter highlighted that, while the four ‘most active’ change leaders described a largely informal, adaptive approach to change at Educase, they differed in their stated approach to change. They also differed in the detailed content of their change goals, although this ‘most active’ group were more concerned with second-order change (in terms of enhanced organisational effectiveness/efficiency) than the wider group of research participants.

Data analyses indicated that, when they talk about change, individual change leaders notice what is new; what is different to before; what is different to their expectations; and may even note areas of continuity. It proposed that ‘insiders’ have an attitudinal as well as a temporal orientation towards change because they have expectations and notice emerging patterns which positively/negatively conflict with those expectations. It also observed that change leaders notice what is local to them; i.e. they notice issues which involve them directly and those which are particularly concerning to them.

When change leaders interpret emerging organisational patterns and transitory outcomes, analyses indicated they often use comparisons: such as making normative judgements; making direct comparisons; and using analogies/metaphors. We saw that normative judgements about particular events may be very different, even within a small community of the four most active change leaders at Educase. The differences were attributed to agent micro-diversity.

Data analyses indicated that change leaders respond to emerging organisational patterns in affective, cognitive and behavioural terms. In this particular case, there were more negative affective responses. Cognitive responses included reflection, such as questioning, and indicated learning. Analysis of behavioural responses indicated that individuals may choose whether to adapt or maintain their existing patterns of behaviour in light of emerging organisational patterns. It noted that an individual’s adaptive behaviour may be in service of organisational change (going with the flow of emerging organisational patterns) or in service of organisational continuity (going against the flow of emerging organisational patterns). At Educase, emerging organisational patterns slowed down the organisation-wide change that individual change leaders were pursuing. Some turned their attention elsewhere i.e. to projects within their own areas.

Overall, these fine-grained analyses have highlighted differences between individual change leaders in terms of their detailed change goals; the organisational patterns they noticed and interpreted; and how they responded. Yet we have also seen some similarities in the type of change goals pursued by the most active; the nature of what they noticed; the kind of interpretations they made; and the way they responded. This is explored further in Chapter 7.

Chapter 7: Discussion and contribution

*“Reflexive emergence... results in a unique feedback path
between the emergent structure and the individual agents”*

(Goldspink and Kay, 2010: 58)

7.1 Overview

This chapter draws upon the extant literature to offer a theoretical interpretation of the case in relation to the research question. Then it proposes how insights from this DBA thesis make novel contributions to theory, practice and method.

7.1.1 Revisiting the question

The theoretical framework developed in Chapter 3 reframes organisational change as self-organising; highlighting a co-evolving relationship between micro-level planned behaviour and emergent, macro-level patterning. The multi-level empirical study then explores the macro-to-micro dynamic in that framework i.e. the unique feedback path between emergent structures and reflexive human agents, highlighted in the above quotation.

Focusing on a gap in our understanding of the macro-to-micro dynamic in change leadership, research question 3 asks: **What emerging organisational patterns and ‘transitory outcomes’ do change leaders notice, interpret and respond to as they pursue change in organisations?**

There are two parts to the question:

- a) What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?
- b) How do change leaders respond to emerging organisational patterns and transitory outcomes as they pursue change in organisations?

As a reminder, Goldspink and Kay (2010: 48) propose two classes of emergence: non-reflexive, where agents in the system are not self-aware, and reflexive emergence i.e. in complex human systems, such as organisations, *“where the agents (actors) in the systems under study are self-aware and linguistically capable”*. This notion of reflexive emergence highlights the feedback path between macro and micro phenomena; *“each agent being an observer of the structure he/she contributes to producing and the process of observation contributing to what emerges”* (ibid. 58). It was this notion of reflexive

emergence, particularly the authors' assertions that human agents can *notice* emergent patterns of social behaviour, *interpret* them in language and decide how to *respond*, which influenced the formulation of the research question.

The research question is a sensemaking question which highlights three aspects of sensemaking. *Noticing* draws attention to the idea that sensemaking is focused by extracted cues (Weick, 1995). *Interpretation* highlights the product of sensemaking (the sense that is made) as well as the process. *Responding* emphasises the (en)active nature of sensemaking, with reality understood as ongoing accomplishment (Weick, 1995). Sometimes, therefore, the term sensemaking is used as shorthand in this chapter; particularly for noticing and interpreting.

7.1.2 Responding to the question

Section 7.2 considers **3a) What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?** by highlighting three sensemaking challenges facing change leaders. Firstly, it considers the difficulty of making sense of emerging organisational patterns in what it argues are the far-from-equilibrium conditions at Educase, and proposes that ontological issues can underlie epistemological sensemaking challenges. It suggests that the vantage point of Educase, an organisation in the midst of change, illustrates these challenges; highlighting an important issue which has been largely overlooked in retrospective empirical studies of complexity leadership (e.g. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007a; Lichtenstein and Plowman, 2009). Secondly, it contends that change leaders are also, paradoxically, change recipients; compounding the challenges they face in making sense of emerging organisational patterns. This adds to studies of sensemaking in organisational change, which have typically differentiated between initiators and recipients of change (e.g. Balogun and Johnson, 2005; Bartunek et al., 2006; Balogun et al., 2010). Thirdly, it highlights that change leaders have a 'local' perspective on emerging organisational patterns; at a fine-grained level what they notice and how they interpret it is idiosyncratic to individual actors. This adds to our understanding of reflexive emergence (Goldspink and Kay, 2010) in practice. Key findings are summarised at the end of each main section.

Section 7.3 also considers **3a) What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?** It explores three organisational patterns noted in Chapter 5: patterns of events; 'changing patterns of relations'; and 'changing patterns of attention'. It argues that these patterns represent three 'domains of emergent organisational change' and clarifies what is meant by this term, before acknowledging the interdependent nature of these domains. Next it emphasises the importance of articulating

change outcomes in terms of patterns, rather than points, and differentiates between patterns of events and the two thematic patterns. Lastly, it proposes that domains of emergent organisational change address a gap in the literature on emergent change, which has focused on process (e.g. Weick, 2000; Tsoukas and Chia, 2002) and largely overlooked ‘what’ actually changes. As they occupy a middle ground between abstract accounts of emergent change processes and idiosyncratic empirical findings, it proposes that these domains may facilitate sensemaking of emerging organisational patterns.

Section 7.4 considers **3b) How do change leaders respond to emerging organisational patterns and transitory outcomes as they pursue change in organisations?** First, it highlights that individual change leaders respond in terms of how they feel and think, as well as what they do. Next, it proposes that the three organisational patterns previously discussed can be understood as responses across populations of interdependent agents. Then it explores the fractal self-similarity of response patterns across individual/organisational levels. It uses the affective, cognitive and behavioural categories from the individual level analysis and extant literature (e.g. Oreg et al., 2011) to classify the organisational patterns. It notes the absence of affective organisational patterns; returning to the literature and case data to explore this anomaly, before concluding that the category should be retained in the typology.

Section 7.5 summarises the empirical research findings. Section 7.6 then highlights the six contributions made by this research. It explains that it adds to theory on change leadership in self-organising change by extending work on reflexive emergence; complexity leadership; sensemaking/affect during change; and emergent change. Its contribution to OD practice helps change leaders to reframe their role and make sense of emerging patterns in their own context. Its methodological contribution illustrates the benefits of multi-level triangulation within embedded case study designs.

As a reminder, Chapters 5 and 6 presented first-order analyses. They endeavoured to stay close to the themes expressed by research participants and communicate something of the substance of the case to readers of this thesis. This chapter conducts a second-order analysis; offering a theoretically driven account and positioning the findings within the wider literature. Similar approaches have been taken in other key sensemaking studies (e.g. Gioia and Chittipeddi, 1991; Balogun and Johnson, 2004).

7.2 Challenges for change leaders

3a) What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?

7.2.1 Sensemaking in the midst of change

Chapter 5 considered the content of change leader sensemaking and outlined three emerging organisational patterns: patterns of events; ‘changing patterns of relations’; and ‘changing patterns of attention’. Yet the neatness of the patterns belies the messiness of the sensemaking process. As previously acknowledged, those patterns did not spring fully-formed from the mouths of research participants, but were developed by integrating accounts from all the interviewees; i.e. they reflect my sensemaking of their sensemaking. Chapter 6 highlighted that individual change leaders noticed what was ‘local’ to them (i.e. things which they were concerned with or about) and that each person’s interpretation was coloured by their experience and frame of reference.

Change leaders each had part of the story, often recounted around a backbone of events (discussed later); yet they did not readily identify the emerging organisational patterns found at Educase. Instead, interviewees reported “*a ground-rush of change*” [I7.2] from outside; an unanticipated internal “*crisis of funding*” [I8.2]; and the unexpected resignation of the CE, which “*threw everybody into a bit of a tizz*” [I3.4]. It was a period of uncertainty and anxiety for many at Educase, which served to expose “*dormant*” issues [I2.3] and heighten emotions as “*the low morale really ripped the place apart*” [I3.4].

Despite the importance of sensemaking in complexity leadership (Lichtenstein and Plowman, 2009) and reflexive emergence (Goldspink and Kay, 2010), Educase suggests that making sense of emerging organisational patterns in the midst of change can be challenging for change leaders. Falconer (2002: 119-120) offers a sense of these challenges:

“the only learning that exists amidst change teeters on the edge of observing and describing the becoming, of which we are in the midst, in a way that can be conceived later, at another time of becoming”.

This section now considers three reasons why making sense of emerging organisational patterns in the midst of change may have been challenging for Educase’s change leaders.

7.2.2 Making sense of emerging patterns far-from-equilibrium

An organisation far-from-equilibrium

Analyses of Phase 1 retrospective data highlighted ten years of substantial organisational change at Educase prior to the period of study. That change took place against a backdrop of internal continuity and external political/economic **stability**. It highlighted two outcome patterns of organisational change: ‘growth’ and ‘development’ across multiple fronts simultaneously. While many of the change efforts were departmental, they cumulated to change Educase from a “*small*” to a “*medium-sized*” institution. Despite the amount and pace of change, however, it represented variations on a theme of growth and development within existing structures and did not fundamentally challenge accepted norms, or produce a new world view. Therefore this is **first-order** organisational change; change within an existing framework (Watzlawick et al., 1974).

Looking forward at Phase 1, the most active change leaders sought to change ways of working across Educase to enable survival and continuity of mission in anticipation of a more constrained financial environment. Since this entails change to the governing framework (i.e. challenging the established norms of departmental working in service of a greater organisational orientation), it can be understood as **second-order change** (Watzlawick et al., 1974). At Phase 1, research participants considered that Educase had learned from its successes and become ‘good at’ organisational change, compared with its institutional peers. However the change they had been good at was first-order change, while the change many hoped to effect required second-order change. Further, the ‘changing patterns of attention’, found at Phase 2, also indicate second-order change, in terms of a new ‘world view’. Examples include (1) the organisation being ‘paused and waiting’, rather than growing and developing; (2) an ‘internal focus’ on changing the organisation, previously an area of continuity, rather than seizing external opportunities; and (3) stories that ‘students matter’ predominating over ‘size matters’.

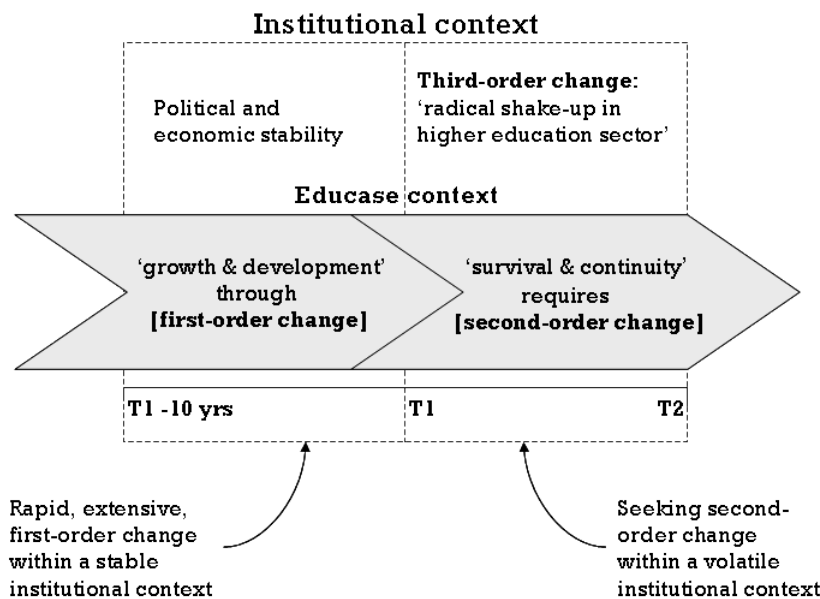
Part of Educase’s initial appeal as a case was its ‘ordinariness’³⁹, in contrast to the extra-ordinary cases of transformation considered in complexity leadership studies (e.g. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007a). However the data illustrated that Educase’s institutional context during the study was not ordinary, but was defined by a radical shake-up of the Higher Education system in England. Thus Educase was itself embedded within a changing institutional context exemplifying **third-order change** (Tsoukas and Papoulias, 2005).

Figure 17 depicts this changing nature of organisational change at Educase. With a history of success in first-order change within a stable institutional context, the real-time research found the

³⁹ As Chapter 4 notes, the sentiments of ‘ordinariness’ link to Yin’s (2009) notion of the representative/typical/average case

most active change leaders seeking second-order change during third-order institutional upheaval. This represents a significant discontinuity in the nature of organisational change at Educase. In complexity terms, Educase was far-from-equilibrium (FFE), where an organisation moves away from established patterns of work and behaviour (Mitleton-Kelly, 2003: 13). At Educase, equilibrium was not stability, but rapid, extensive, first-order change within a stable environment.

Figure 17: Changing nature of change at Educase



N.B. T1/T2 indicate start/end of real-time data collection

Implications of being far-from-equilibrium

Dissipative structures (Prigogine and Stengers, 1984; Nicolis and Prigogine, 1989) provides a useful source domain for analogies to interpret the findings, because the implications of being FFE are more fully considered in this branch of complexity science. When dissipative structures are pushed FFE, they reach a bifurcation point and self-organise into new order, the nature of which cannot be predicted in advance. The Bénard cell illustrates this process. When the liquid, say water, in the cell is the same temperature as the environment, it is at equilibrium. When heat is applied from underneath, the fluid begins to become unstable. At a critical (temperature) value, the bifurcation point, millions of water molecules spontaneously self-organise themselves into either right-handed or left-handed thermal convection patterns and *"chance alone will decide which of these solutions will be realised"* (Nicolis, 1992: 319). It is this self-organisation into new order, referred to as phase transition, which has fascinated many complexity scientists.

What is also interesting, in terms of understanding the organisational case, is what happens before that bifurcation point. In the Bénard cell, applying heat (an external constraint) pushes

the water away from its homogeneous equilibrium state, resulting in many, small, random, fluctuations in thermal motion at a micro-level. While there may be some patterning to these movements, where positive feedback amplifies their effects, as yet there is no macro-level coherence, so the behaviour of the system appears random. Until the bifurcation point is reached, it cannot be known which micro-level fluctuations will be significant. In FFE conditions near to the bifurcation point “*a small fluctuation may start an entirely new evolution that will drastically change the behavior of the macroscopic system*” (Prigogine and Stengers, 1984: 14).

With the changing nature of change, external constraints imposed by political and economic changes in HE, and internal perturbations, such as the unexpected resignation of the CE and the internal budget deficit, the circumstances at Educase could be considered broadly analogous with the application of heat to a Bénard cell. The lack of macro-level coherence observed at Phase 2 suggests that Educase had not made a phase transition, and we might, therefore, liken the organisational case to a Bénard cell pre-bifurcation. If so, we would expect there to be many small, random, fluctuations at a micro-level in response to external constraints and internal perturbations. While there may be some patterning of micro-level fluctuations, there would be no macro-level coherence.

If conditions in the Bénard process hold true in human organisations, there are two important reasons why change leaders may not find it easy to notice and interpret emerging organisational patterns. First, it might not be easy to notice emerging organisational patterns in the midst of change, since all we have are micro-level fluctuations and there is not yet any macro-level coherence. Second, it would not be possible to predict which patterns might predominate at a macro-level. Thus, ontological issues may underlie epistemological sensemaking challenges.

Sensemaking in far-from-equilibrium conditions

While it usefully highlights potential challenges to macro-level sensemaking in FFE human systems, this analogy has its limitations. Unlike the controlled experimental conditions of the Bénard cell, in naturalistic human systems (in the sense of Lincoln and Guba, 1985) it is unclear what external constraints might consist of, or what their critical values might be. Unlike water molecules, human agents are self-aware and linguistically capable; they have the capacity for reflexive emergence, whereby their observation of emergent structure contributes to what emerges (Goldspink and Kay, 2010: 58). Therefore it is helpful to compare Educase findings with other organisational cases.

Plowman et al (2007a) found that organisational leaders’ sensemaking and sensegiving played an important role in continuous, radical change at Mission Church (a case cited within Lichtenstein

and Plowman, 2009). Leaders made sense by “*interpreting adaptations as they begin to accumulate*” and gave sense by “*giving meaning to the changes that were unfolding*” (Plowman et al., 2007a: 538). They “*helped draw attention to the pattern that was forming*” and “*were skilful at recognizing and giving meaning to emerging patterns*” (ibid.539). Plowman et al explain that organisational leaders used language and symbols which had the effect of reinforcing fluctuations through positive feedback. The authors helpfully emphasise the active role of sensemaking and sensegiving in self-organising change and, importantly, their case study illustrates that activities of making and giving sense are not separate from the organisational change process, but integral to it. Indeed, sensemaking activities in labelling behaviours help “*provide coherence*” (Plowman et al., 2007b: 352); i.e. they contribute to the creation of organisational pattern.

Since Mission Church offers a distinct contrast to Educase, it is helpful to consider what might account for the apparent ease with which organisational leaders at Mission Church made and gave sense about emerging patterns and the difficulties in doing so experienced by Educase change leaders. I propose that an important element is the vantage point. Mission Church used retrospective data to illuminate what the authors suggest was a FFE state which gave way to emergent self-organisation. Thus the vantage point of the research is one of new organisational order. At Educase, however, new organisational order was not evident at Phase 2. Rather this was an organisation in the midst of change and “*in a bit of a tizz*” [I3.4]; a phrase which highlights confusion, anxiety and emotionality.

I propose that being FFE ‘in the midst of change’ is a very different proposition to the vantage point of new order. Patterns are emerging and dissipating and the organisation can be more appropriately described as changing rather than changed. It is not possible to know what order might cohere across the organisation from local fluctuations or, indeed, whether it will; continued flux and uncertainty may become the new order. As the earlier Bénard analogy shows, in FFE conditions, ontological issues can underlie epistemological sensemaking challenges.

While complexity leadership work usefully highlights the importance of sensemaking in organisational change (Lichtenstein and Plowman, 2009), it underplays its difficulties. Educase adds to retrospective empirical studies of complexity leadership (e.g. Plowman et al., 2007a; Chiles et al., 2004; Lichtenstein, 2000: who collected real-time data, but reported on accomplished change), which tend to gloss over these challenges, by highlighting the difficulties change leaders experienced making sense of emerging patterns whilst in the midst of changing.

7.2.3 Change leaders as change recipients

Organisational change studies typically differentiate between initiators and recipients of change. Senior managers are often cast as architects and supporters of strategic change (Balogun et al., 2010), with change recipients typified as passive and resistant to change (Bartunek et al., 2006a).

Such caricatured roles of change recipients have been challenged by studies which highlight the active role of change recipient sensemaking and affect in organisational change. For example, Balogun and Johnson (2005) find that the active nature of inter-recipient sensemaking among middle managers contributes to both intended and unintended change outcomes. Bartunek et al (2006a: 203) state that “*change recipients are not solely passive recipients of change*” and highlight the active role they play in organisational change processes “*making sense of them, having feelings about them, and judging them*”. More recently, Balogun et al (2010) highlight senior managers’ affective reactions to organisational change, when they are recipients of imposed change. While this starts to sketch a more detailed picture of senior managers in organisational change, it maintains the differentiation between initiators and recipients.

Empirical data from Educase challenges the caricatured role of change leaders by illustrating that they are not merely architects, supporters (Balogun et al., 2010) and prime movers (Weick and Quinn, 1999). By paying attention to the experience of change leaders, it highlights that even those in top management roles are “*on the receiving end*”, as Bartunek et al (2006a) put it, of organisational change. The data in Chapter 6 shows that change leaders also struggle to make sense of emerging organisational change, that they have feelings about and judge it; as this quotation illustrates:

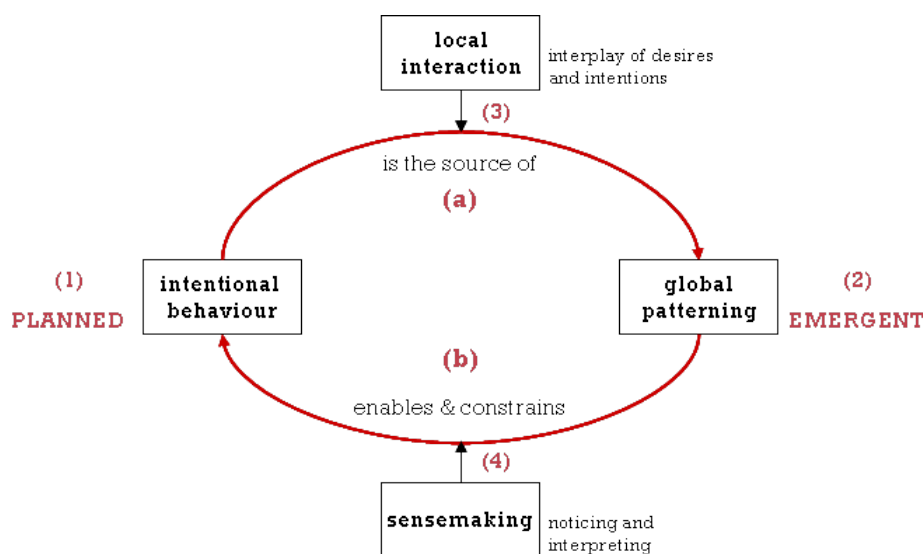
“I guess one of the things which has sort of stunned me and one of the things I struggle with most, and I go home and I sit at home sometimes and I think ‘well maybe I’m in a parallel universe or something’. One of the things I struggle with is, it seems so clear to me some of this, it’s crystal clear, and I don’t understand why it seems to be so unclear to some of the others. I just can’t understand it” [I2.3].

Change leaders at Educase were change recipients, ‘on the receiving end’ of organisational change, for two reasons. The first is the co-existence of multiple, simultaneous change efforts across the organisation; the norm for Educase. This complicates the role of change leaders since they are initiators of some changes and recipients of others, but it allows us to maintain the distinction between initiators and recipients of organisational change.

However the second reason that change leaders were ‘on the receiving end’ is due to the feedback loop from the global patterning across a population of agents which enables and constrains planned behaviour (illustrated by the framework of self-organising change overleaf).

This highlights that change leaders are, paradoxically, both initiators and recipients within any particular organisational change. A striking example from Educase was the senior manager who, in an attempt to balance the budget, reputedly decided to turn off the central heating and met with an angry backlash from staff who called it “*ridiculous*” [I8.2]; and “*stupid*” [I15.1]. That resistance acted as “*a resource for change*” (Ford et al., 2008: 362) because it served to keep students “*right at the top of the pile*” [I8.2], but it also contributed to the sense of disconnection with the TMT. So the manager who initiated the budget-balancing change was also on the receiving end of the emerging organisational patterns it helped to precipitate.

Figure 7 (repeated): Organisational change as a self-organising process



I suggest, therefore, that we recognise (1) change leaders are also, paradoxically, change recipients; and (2) that being change a recipient influences their sensemaking and affective state as they pursue organisational change. Since sensemaking, affect and action are closely intertwined (e.g. Weick et al., 2005; Walsh and Bartunek, 2011), this recognition can help develop a more nuanced understanding of the complexities of change leadership in practice.

7.2.4 A local perspective on organisational pattern

Chapter 6 highlighted that noticing and interpretation are ‘local’. It found that individual change leaders notice patterns they are concerned with, where they have direct involvement, and those they are concerned about. Such local patterns may be widespread (one change leader was concerned about rumours within Educase, another was concerned about students); a reminder that ‘local’ relates to connectivity, not geography. Chapter 6 also noted that the most active change leaders noticed what was new, different at Phase 2, and different from expectations. It concluded that insiders have expectations and notice emerging patterns which positively/

negatively conflict with their expectations. When interpreting emerging patterns, change leaders made comparisons: through judgements; comparisons with expectations; and analogy/metaphor. This reminds us that organisational actors are embedded in context; that they stand within and utilise their own frames of reference when interpreting emerging organisational patterns. At a fine-grained level, therefore, the emerging patterns change leaders notice and the interpretations they make in language are idiosyncratic to individual actors.

Such findings are not unique to Educase. Starbuck and Milliken (1988: 45) note that executives may differ in whether they receive or filter out particular stimuli; and *“executives who notice the same stimuli may use different frameworks to interpret these stimuli and therefore disagree about meanings or causes or effects”*. They propose that *“noticing is influenced by perceivers’ habits, their beliefs about what is, and their beliefs about what ought to be”* (ibid.: 46). Further, as Chapter 3 notes, any individual has *“a vantage point problem”* in complex systems because *“it’s hard to observe and comprehend a highly diverse array of relationships from any one location”* (Sargut and McGrath, 2011: 72). This may persist even when we invite other views *“because we tend to hang out with people who are mostly like us”* (Sullivan, 2011: 91).

What Educase and the wider literature illustrate is that change leaders have a ‘local’ (i.e. limited) perspective on emerging organisational patterns in two ways. One way comes from their specific connectivity and interdependence within a system (the true meaning of local in CAS terms); a structural position which influences what it is possible to notice. As previously acknowledged, change leaders, even those at the top of the organisational hierarchy, cannot stand outside the flow of action, of which they part, in order to make sense of emerging organisational patterns. The other comes from change leaders’ internal micro-diversity, including their past experience, which influences what they pay attention to out of the possible stimuli and how they interpret them. This local perspective on emerging organisational patterns adds to our understanding of reflexive emergence (Goldspink and Kay, 2010) by showing how agent heterogeneity is enacted in the macro-to-micro feedback path, so that emergent patterns have a non-linear effect on human agents. This understanding supports Chapter 3’s framework of self-organising change (repeated above), which conjectured that there was a non-linear relationship between emergent change (global patterning) and planned change (intentional behaviour).

An implication arising from this local perspective is that seeking multiple, diverse, local perspectives may help change leaders to develop a fuller picture of emerging organisational patterns. While Lewin’s classical OD advocated participation in change from a humanistic perspective, these findings emphasise the importance of involving people in change from a complexity perspective.

7.2.5 Key findings

This section has highlighted three challenges facing change leaders trying to make sense of emerging organisational patterns in the midst of self-organising change.

Challenges of sensemaking in self-organising change

F1: In FFE conditions, ontological issues may underlie epistemological difficulties experienced by change leaders in noticing and interpreting emerging organisational patterns.

F2: When organisational change is understood as self-organising, initiators of change are also recipients of that change; posing challenges for change leaders seeking to notice and interpret emerging organisational patterns.

F3: Individual change leaders notice local patterns and interpret them idiosyncratically; posing challenges for change leaders seeking to make sense of emerging organisational patterns.

F1 builds on retrospective studies highlighting the importance of sensemaking/sensegiving in complexity leadership, but have understated the difficulties faced by those trying to make sense under FFE conditions in the midst of change (e.g. Lichtenstein and Plowman, 2009). **F2** adds to work on change recipient sensemaking (e.g. Balogun et al., 2010) by proposing that change leaders are also recipients of change; they also make sense of, have feelings about and make judgements about emerging organisational patterns. **F3** adds empirical insights to work on reflexive emergence (Goldspink and Kay, 2010).

7.3 Noticing and interpreting emerging organisational pattern - 'the what' of emergent change

3a) What emerging organisational patterns and transitory outcomes do change leaders notice and interpret in language?

7.3.1 Introduction

Despite the sensemaking challenges facing change leaders, evidence from Educase, presented in Chapters 5 and 6, adds empirical support to Goldspink and Kay's (2010) assertion that human actors notice emerging organisational patterns and interpret them in language. Chapter 5 extends their work by highlighting three such patterns at Educase: patterns of events; 'changing patterns of relations'; and 'changing patterns of attention'.

It is argued that these patterns represent three ‘domains of emergent organisational change’. Chapter 5 defines a domain of change as a loose category of change with fuzzy boundaries (Dart and Davies, 2003). The term ‘domain of emergent organisational change’ is primarily used in this thesis to conceptualise and differentiate between spheres of human activity in which emergent outcomes may manifest. The identification of domains of emergent organisational change is a key contribution of this research.

This section discusses the three organisational patterns and explores the notion and contribution of ‘domains of emergent organisational change’.

7.3.2 Patterns of events

Chapter 5 highlights that human actors notice events (situated, temporal occurrences) and patterns of events. This section highlights that change leaders are *attuned* to notice events. Then it unpacks ‘events’ and situates the Educase findings in the wider literature.

Noticing and interpreting events

At Phase 2, interview question 1 asked; ‘in general, what’s changed about Educase over the last year?’ No further prompting was given beyond a nod or ‘uh-huh’. In response, interviewees highlighted many events, particularly those which they deem significant (see Chapter 5, Table 23: Pattern of significant events). At Educase, significant events were those perceived as highly impactful e.g. cuts in HE funding; unexpected e.g. the CE’s resignation; and particularly un/desirable e.g. turning off the heating/opening the new Campus 1 building. This accords with Starbuck and Milliken’s (1988: 47) assertion that “*people notice familiar and unfamiliar stimuli, as well as what they believe to be relevant, important, significant, desirable, or evil*”.

Interviewees also volunteered qualitative judgements of events. For example, mentioning the CE’s resignation, one interviewee qualified that it was “*not a fundamental concern, or change or anything*” [I8.2], while another suggested that it “*threw everybody into a bit of a tizz*” [I3.4]. Two months after the CE’s resignation, one interviewee reported “*wide-ranging*” responses, from “*pleasure that he has a new role... and that his talents were recognised here*” to “*he’s only been here 6 years, I’ve been let down*” [I12.1]. This connection of events with their subjective meaning highlights the performative relationship between noticing and interpreting (“noticing involves a rudimentary form of sensemaking”; Starbuck and Milliken, 1988: 45). It also highlights that commonly labelled events, such as the CE’s resignation, may be interpreted quite differently, reminding us that sensemaking is grounded in identity construction (i.e. “sensemaking begins with a sensemaker” Weick, 1995: 18).

Not all question 1 responses were events. Interviewees also highlighted, for example, plummeting morale, leadership and management challenges, and a change in “*the flavour of the institution*” [I5.2]. However, the prevalence of events in response to question 1 suggests that they readily came to mind; that change leaders are attuned to notice events.

Unpacking events

It is helpful to consider why change leaders might be attuned to notice events:

One plausible reason concerns the ‘specific’ nature of events. Events, understood as situated, temporal occurrences, involve specific people; take place at/over specific periods of time; in a specific place; perhaps with specific artefacts. That specificity might be particularly appealing at Educase, where scientific personnel have likely been grounded in research traditions emphasising objectivity.

Organisational context may also have a bearing, as previous research (Starbuck and Hedberg, 2003) suggests that people are more sensitised to notice events during change. That research proposes that rapid environmental change, like that described in Chapter 5, stimulates cognitive processes so that “*people are likely to notice more events and to engage in more sense-making while they are adapting to changes*” (ibid. 334). This suggests that being attuned to notice events during change is not peculiar to Educase.

A third plausible reason for the prevalence of events in interviewees’ accounts might be a function of reflection. Experiences, shaped and reified through processes of retrospective sensemaking, may become more ‘event-like’, on reflection and in the retelling. Events may act as “*extracted cues*” which focus sensemaking and provide “*a point of reference*”, directing people’s attention in sensegiving (Weick, 1995: 50).

Extracted cues highlight certain features at the expense of others (Weick, 1995) and “*rapid changes amplify perceptual errors*” (Starbuck and Hedberg, 2003: 334), so the perception and recall of events may encompass various perceptual distortions. This may be further compounded when events are experienced at a distance. For example, as it is unlikely that research participants were party to the formal resignation of the CE, they are referring to something which has been communicated to them, perhaps directly by the CE, or indirectly, through others. Even events which have formal artefacts, such as the severance scheme policy document, may have been communicated differently in various local contexts, and experienced differently by each individual. Therefore generic events, such as the CE’s resignation and the severance scheme, are particularised as they are enacted in specific local contexts with specific organisational actors.

This suggests that we may differentiate between underlying events (situated, temporal occurrences) and reported events (cues extracted from local experience of situated, temporal occurrences); see Table 31. In social systems, underlying events typically refer to clusters of temporally and contextually-situated agent actions (rather than to natural/environmental events). Therefore, reported events can be seen as labels used in interpretive processes which are attached retrospectively to name what can be understood, in CAS terms, as particular patterns of local interaction encompassing both gestures and responses (Stacey, 2001).

Naming specific patterns of local interaction in this way facilitates sharing through language; itself an emergent human phenomenon (Goldspink and Kay, 2010). In this socially-constructed way, certain events become part of the organisational story, even though the local experience of those events (whether first-hand, or at a distance) may vary for each individual.

Retrospectively labelling events in language reifies patterns of local interaction, so that they “*can themselves become the target for further linguistic distinction and hence new domains*” (Goldspink and Kay, 2010: 56). Goldspink and Kay (ibid.) propose that “*once distinguished and reified within a domain, agents can decide (on the basis of rational as well as value based or emotional criteria) how to respond*”. These reified ‘events’, therefore, provide stimulus for reflexive emergence; where human agents notice patterns, interpret them in language and choose how to respond. So, through sensemaking processes, reified events have what critical realists term ‘causal efficacy’ (Fleetwood, 2005), in that they affect behaviour.

Table 31: Event types

	Underlying events	Reported events
Definition	Situated temporal occurrences	Cues extracted from local experience of situated, temporal occurrences*
Description	Clusters of temporally and contextually-situated agent actions	Retrospective labels reifying patterns of interaction; a product of interpretive processes
Clock time	Fixed	Re-created in living present
People	Fixed	Extends beyond those directly involved through communication
Place/artefacts	Fixed	Flexible
Meaning	Experienced	Evolves as it is particularised
Potential for causal efficacy	Yes	Yes

*Incorporating perceptual distortions

Patterns of events

Human actors also notice patterns of events. As previously noted, interviewees at Educase highlighted chronological and categorical patterns of events, illustrated in Table 23: Pattern of

significant events. They also attributed causal patterns; laying out chains of events. Causal patterns were typically stimulus/response patterns. For example the “*economic crisis in the country*” was seen to precipitate the announcement “*that there were going to be major [internal] economies*” [I3.4]; and the various funding problems listed by one interviewee “*which led on*”, he suggested, to various cost-cutting measures [I8.2]. This accords with previous research findings that specific events may trigger new approaches, behaviours and experiments (Higgs and Rowland, 2005).

Patterns of related events were sometimes grouped and labelled by interviewees. For example, those with negative financial implications were shorthanded to the “*economic crisis*” [I3.4] or “*the cutbacks*” [I2.3] (external events); to a “*crisis of funding*” [I8.2] or “*a period of disturbing financial instability*” [I6.2] (internal events); while responses were labelled as the “*economies campaign*” [I12.2] and “*the cost reductions*” [I9.2]. This highlights that reported events may differ in terms of their granularity (differing in temporal and spatial scope; Van De Ven, 2007).

While the above examples highlight sequences of events, interviewees also attributed causality between events and qualitative reactions e.g. interviewees’ qualifiers (noted earlier), which offer insight into how they interpreted the CE’s resignation. However, interviewees also connected events with organisation-wide responses. For example culture and morale changes were said to be “*to do with the cost reductions that went through and voluntary severance*” [I9.2]. One interviewee proposed that “*morale plummeted because of uncertainty*” related to the severance scheme; which he saw as one of the events which caused a “*cultural earthquake for many*” [I8.2].

In describing patterns of events, interviewees are constructing a narrative. “*Narratives involve temporal chains of interrelated events or actions, undertaken by characters*” (Gabriel, 2004: 63, original emphasis). Some narratives are turned into stories with the addition of plots (ibid.). Stories can be seen as “*emotionally and symbolically charged narratives; they do not present information or facts about ‘events’, but they enrich, enhance and infuse facts with meaning*” (Gabriel and Griffiths, 2004: 115). Pentland (1999) suggests that, in processual research, stories can be understood as abstract conceptual models explaining sequences of events. Interviewees at Educase recounted both narratives and stories about patterns of events occurring in Autumn 2010:

A largely narrative excerpt is: “*I think we’re continuing to cope with the impact of cutbacks in the funding of higher education and the specific effects on Educase. So a lot of the management time has been taken up with, with really trying to hang on with what we’ve got. And certainly identify those areas which maybe, in the boom times, were developed around the fringe that maybe we should be giving up; and recognising what our core activities were and trying to maintain those*” [I2.3].

Another person told a more emotionally charged story where a member of staff was “sacked” and “people were ‘up in arms’, there was almost a revolution about it”, until the story’s hero (“a good guy”) “threatened to take the story to the press, so they took him back on” [I15.1].

Like ‘reported events’, I suggest that narratives and stories of patterns of events can be understood as reifications which refer to complex patterns of local interaction. As before, however, those reified narratives and stories have the potential for causal efficacy beyond the underlying events. Narratives and stories themselves form part of the organisational story; the global patterning which enables and constrains agent behaviour.

Drawing it together

This section discussed underlying events, understood as clusters of temporally and contextually-situated agent actions, and discussed the distinction and labelling of those events/patterns of events in language using extracted cues (reported events and narratives/stories of patterns of events). This makes a contribution by providing empirical support for Goldspink and Kay’s (2010: 56) argument that human agents use language to “*make distinctions on prior distinctions*”. The notion of reflexive emergence (ibid.) means that both the underlying events, and the reification of events and patterns of events in language, may enable and constrain agent behaviour.

Underlying events may be considered as planned, (however well-planned or poorly-planned observers consider them to be), since they largely reflect the deliberate decisions and intentional behaviour of individual agents. However the events, narratives and stories reported by interviewees are quite different. In the telling (to oneself or others), they shorthand and reify patterns of local interaction which include not just events, but the experience and context of those events. They include perceptual distortions, so multiple interpretations of underlying events may co-exist across populations of agents. They also lose the specific temporality and context of underlying events, since these interpretive accounts take place in the living present. As such they are continually reproduced and reconstructed, which “*always leaves room for potential transformation*” (Stacey, 2012: 27) of their meaning.

The surprising finding here is that, while underlying events may be planned, reported events, narratives and stories represent a domain of emergent organisational change ‘patterns of events’ because they reify patterns of local interaction.

7.3.3 Patterns of relations

Chapter 5 illustrates that human actors notice changing relations between individuals and groups; summarised in the global theme ‘changing patterns of relations’ (Figure 14); a second domain of emergent organisational change. The discussion below considers what that global theme tells us about emerging patterns of relations.

The thematic network ‘changing patterns of relations’ was inductively derived from participant accounts of organisational change using thematic network analysis. Chapter 5 acknowledged that, while interviewees provided data about relations, the resulting network represents my sensemaking of their sensemaking. Developing the thematic networks involved integration; bringing differing accounts about relations together in order to create the overall pattern. The reason for this, highlighted in Chapter 6, is that individuals tended to comment on relations affecting themselves; in CAS terms, they talked about ‘local’ interactions. For instance, those within or on the fringes of the TMT, tended to talk about the basic theme ‘fragmentation within TMT’; while it was mainly, not exclusively, those outside the TMT who talked about ‘disconnection with TMT’⁴⁰.

Changing patterns of relations do not have the temporal specificity of events. They reflect perceived qualitative differences, over time, in relations between individuals and groups. Patterns of relations develop through processes of local interaction. When interviewees talk about these relations, they generalise and particularise. This reflects how human actors are both ‘immersed in’ and can ‘abstract from’ their everyday lived experiences (Stacey, 2010). They generalise by using labels e.g. ‘fragmentation’ to describe patterns of relations. They particularise with specific examples. Staying with the fragmentation example; one person discussed finding it harder to persuade others to join in with particular work because *“there’s been some fragmentation of different groups”* [I2.3]. Another recounted positioning a potential new course with various senior managers, then finding that it was being worked on elsewhere in Educase, supported by another TMT member; which he referred to as *“that fragmentation”* [I8.2]. A third considered that constrained resources and the CE change had, together, *“brought about the sense of fragmentation of the unity of... senior management”* [I11.2].

Understanding dynamic patterns of relationships among agents is key to understanding complex organisational systems (e.g. Anderson et al., 2005). Changing patterns of relations have been found in other complexity research. Discussing the results from an agent-based model of learning within innovation projects, Harkema (2003: 346) highlights that *“processes evolve through*

⁴⁰ ‘Basic themes’ in thematic networks are derived from data, clustered into ‘organising themes’, then into a ‘global theme’ (Attride-Stirling, 2001).

interaction and henceforth structures will be temporary, i.e. dissipative, and be created and re-created through the changing patterns of relations between people”.

‘Changing patterns of relations’ can, therefore, be understood as pattern that is “*present and evolving*” throughout organisational change (Livne-Tarandach and Bartunek, 2009: 19); creating temporary structures (Harkema, 2003) and providing signposts, by way of ‘transitory outcomes’, for those seeking to understand how planned change is evolving (Livne-Tarandach and Bartunek, 2009) through processes of self-organisation. While the particular pattern of relations noted at Educase results from intentional behaviour at the micro-level, it is not the product of any deliberate plan, but emerged, over time, through processes of iterated local agent interaction. The global theme of ‘changing patterns of relations’ therefore illustrates a domain of emergent organisational change (discussed further in 7.3.6).

As Stacey (2007) reminds us, individuals (including change leaders and researchers) cannot stand aside from their participation in a system in order to understand or influence it. So, while I have worked carefully to highlight patterns of relations across Educase, the thematic network must be ‘local’ since, irrespective of method, no one can have a complete view. Even if they did, it would be immediately outdated because, in CAS, “*history is still running*” (Allen et al., 2006: 2). Therefore any representation must be understood as provisional, not perfect (discussed in Chapter 4).

However, as this inability to stand apart from the system, or to stop it, means that we *always* have to act with imperfect information, then the creation and use of such thematic networks has practical *utility* for organisational theorists and change leaders seeking to make sense of emerging organisational patterns in their own context. As Allen (2007: vi) explains; “*our interpretive frameworks are really created because we find them useful*”.

7.3.4 Patterns of attention

Chapter 5 also shows that human actors notice attentional patterns; illustrated in a second global theme; ‘changing patterns of attention’ (Figure 15). It represents a third domain of emergent organisational change at Educase.

‘Changing patterns of attention’ reflect perceived qualitative differences, between Phases 1 and 2, in how people spend their time; what is done and not done; and what they emphasise as important, in terms of what they say and do. As discussed earlier, this global theme represents a more fundamental change at Educase than ‘changing patterns of relations’. For example, while the reported degree of fragmentation and disconnection had increased, these were not new

phenomena at Educase; both were apparent from Phase 1 interviews and the SNA. However, the attention-related organising theme ‘changing organisational orientation’ reflects the type of second-order change discussed in 7.2.2. The norm described at Phase 1 was of first order ‘growth and development’ across multiple fronts: with change leaders highlighting external funding opportunities; top managers making swift decisions to pursue them; people ‘going the extra mile’ in order to win competitive bids or achieve accreditation; all against a backdrop of structural continuity. That simply was not evident at Phase 2. While Phase 1’s retrospective focus may mean that interviewees overstated these characteristics, the experiences described at Phase 2 were markedly different: there was an organisational pause; internal focus; emphasis on changing structures; and difficulties in TMT decision-making.

‘Changing patterns of attention’ has some correspondence with Tsoukas and Chia’s (2002: 79) finding that *“a new discursive template—a set of new interpretive codes—which enables a novel way of talking and acting”* arose from a planned TQM programme. Discussing this finding, Tsoukas and Papoulias (2005: 91) note that *“when a change process starts unfolding, its potential may extend to other issues beyond those the change agents had originally intended or pursued”* and propose that change programmes have *“two dimensions: a technical one and a discursive one”*; the latter *“enables change agents to make novel associations and extend change to other directions”*. There are clear parallels between the notions of an emergent ‘discursive dimension’ to change and ‘changing patterns of attention’ as a domain of emergent organisational change e.g. the ‘changing organisational stories’ noted between Phases 1 and 2.

However, ‘changing patterns of attention’ is *broader* than the discursive dimension described by Tsoukas and Chia because it encompasses more weakly-discursive dimensions (see Table 32). It includes the idea of noticing (perception) as well as interpreting (conception). It is concerned with what is emerging, where weak signals may be less formed than sets of interpretive codes. While the notion of a discursive dimension privileges interpretive concepts, ‘changing patterns of attention’ is also concerned with the experiential; the ‘doing-ness’ of organisational life.

Table 32: Extending the discursive dimension

‘changing patterns of attention’	
Weakly-discursive	Strongly-discursive*
Noticing (perception) Weak signals, less formed Experiential: feeling/doing Pre-discursive e.g. bodily awareness, affect Extra-discursive e.g. socially/materially real	Interpreting (conception) Templates; sets of interpretive codes Interpretive: thinking/saying Discursive

* From Tsoukas and Chia (2002)

Osborn and colleagues (Osborn et al., 2002; Osborn and Hunt, 2007; Osborn and Marion, 2009) have previously highlighted the importance of the “*patterning of attention*” in organisations. However, their focus is on leaders’ patterning of attention, which “*involves isolating and communicating what information is important and what is given attention from an endless stream of events, actions, and outcomes*” (Osborn et al., 2002: 811) and has been taken up by others concerned with complexity leadership (e.g. Uhl-Bien and Marion, 2009). Their emphasis on patterning of attention as an ongoing, collective, agentic process appears similar to the notion of sensegiving in strategic change initiation (Gioia and Chittipeddi, 1991). The concerns of this study are somewhat different. It is seeking to understand what change leaders noticed about changing patterns of attention (*sensemaking*, more than *sensegiving*) between Phases 1 and 2.

Osborn et al (2002: 801) emphasise the importance of formal leaders (“*the corporate elite*”) in identifying what is important and relevant in moving towards desired ends. This illustrates an important point about complex human systems in general, and organisations in particular; that agent heterogeneity includes power differentials. So, while the powerful cannot control system behaviour, it reminds us that what they say, do, don’t say and don’t do may have a disproportionate influence on that behaviour. This was exemplified at Educase. For example, the expectation that the new CE would/should soon give strategic direction, influenced some top managers to hold strategic projects, giving the impression that Educase was “*paused and waiting for leadership*” [I7.2]. Indeed interviewees’ disproportionate emphasis on management attention is reflected in the thematic network.

Like patterns of relations, patterns of attention are “*present and evolving through change*”, creating transitory outcomes which signpost how change is progressing (Livne-Tarandach and Bartunek, 2009: 19). Since patterns of attention evolved, over time, through iterated local agent interaction, the global theme ‘changing patterns of attention’ illustrates a further domain of emergent organisational change.

7.3.5 Domains of emergent organisational change

Having identified emerging organisational patterns in three domains, this section clarifies the term ‘domain of emergent organisational change’ and considers how the domains add to the existing literature.

7.3.5.1 Understanding domains of emergent organisational change

Defining domains of emergent organisational change

In this thesis, ‘domains of emergent organisational change’ primarily refer to global outcome patterns arising in particular spheres of human activity from the process of self-organisation. Attention is also paid to their practical utility as interpretive lenses.

(i) Domains of emergent organisational change: as global outcome patterns

Chapter 5 proposed that domains of change are understood as loose categories of change with fuzzy boundaries which help to categorise change outcomes (Dart and Davies, 2003). It noted three outcome patterns at Educase: patterns of events; ‘changing patterns of relations’ and ‘changing patterns of attention’. These are second-order abstractions which describe emergent global patterns arising across a population of interdependent people in an organisation from the process of self-organisation. This use departs from Dart and Davies, whose up-front identification of domains of change, as change programme targets, associates them more closely with planned change.

Importantly, these domains highlight patterns of emergent change outcomes in particular spheres of human activity. ‘Domain’ was carefully chosen as it implies a notional boundary to such patterns. It is used here to delineate conceptual, rather than spatial configurations, and is not intended to suggest territorial ownership or control. A domain enables us to conceptualise and differentiate between spheres of human activity in which emergent outcomes may manifest. This is a major contribution of this study (discussed in 7.6), since we know little about what changes in emergent organisational change.

(ii) Domains of emergent organisational change: as interpretive lenses

Each domain generalises and simplifies what is going on within highly complex processes. Like lenses, each highlights some features at the expense of others (Morgan, 1997). Events, relations and attention patterns are attention directors and simplifiers (Pettigrew, 2000) which provide differing foci in abstracting from experience and thereby provide pluralistic perspectives on complex organisational behaviour. Thus they offer practical utility for those seeking to anticipate and make sense of emerging organisational patterns; a major contribution of this study (see 7.6).

Interdependencies between domains of emergent organisational change

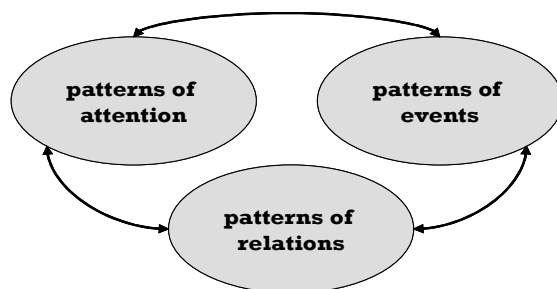
Importantly these domains are not considered separate ‘elements’ of emergent organisational change. Patterns of events, relations and attention are dynamically interrelated. For example:

One of Educase’s most active change leaders described a pattern of events relating to discussions about whether and how to change the structure of academic departments in response to the decision of one of the departmental heads to retire without any obvious successor. He introduced it as an “*extraordinary example*” of how he felt that trust had been eroded between groupings within the TMT, and between the TMT and other groupings within Educase. He highlighted pre-existing divisions (patterns of relations), which were exacerbated by the patterning of events and led to further “*breakdowns*” in trust (patterns of relations).

Yet the breakdown in relations described seems fuelled by differences in what people were paying attention to (patterns of attention). A departing CE, perhaps with a short time horizon, was seen to favour “*pragmatism*” in a solution; yet other TMT members (including aspiring CEs) were concerned with longer-term implications. Unable to reach agreement and fearing “*a nasty confrontation*”, a working party was set up involving a wider group. Their report also resulted in an unsatisfactory stalemate and a “*situation of chaos*” (in the regular sense of utter confusion). This pattern of events served to ensure that significant management time and effort was internally focused on structural issues, a departure from Phase 1, and on what each other was doing (patterns of attention). One manager therefore went through papers “*virtually line by line*” pointing out flaws; reflecting and potentially exacerbating the breakdowns in trust (patterns of relations).

The above example illustrates that, while particular domains of emergent organisational change may be separated in the abstract, for purposes of simplification and generalisation, they are intertwined in action; see Figure 18.

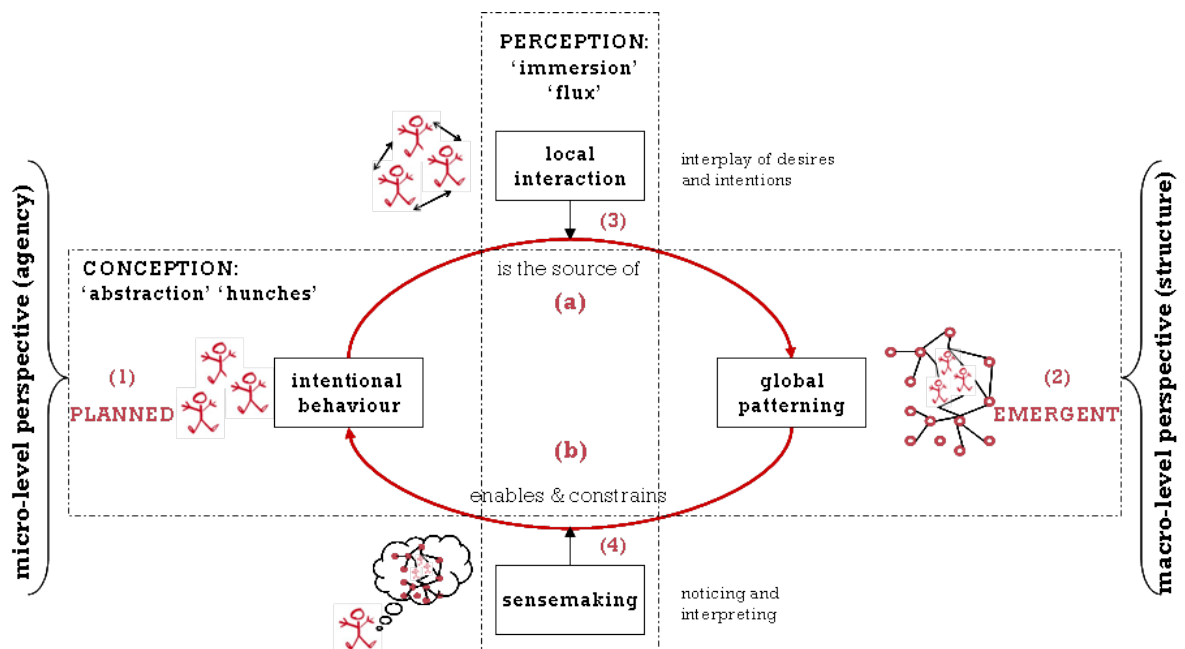
Figure 18: Performative interdependencies between domains



Domains of emergent organisational change may be understood in the ‘ostensive’ as abstract patterns, or in the ‘performative’ as “*specific actions, by specific people, in specific places and times*” (Feldman and Pentland, 2003: 101). Strong performative relationships between ostensibly separate aspects/perspectives have previously been observed in relation to other organisational-level phenomena: organisational routines (Feldman and Pentland, 2003) and organisational learning (Levinthal and Rerup, 2006). Pentland and Feldman (2005: 798) describe organisations as “*a sea of interdependent actions, interpretations and artifacts*” and propose that “*identifying a particular routine is a bit like trying to isolate the Gulf Stream from the Atlantic Ocean*”. We therefore create ostensive distinctions in our interpretive frameworks “*because we find them useful*” (Allen, 2007: vi).

The distinction between domains of emergent organisational change is a purely conceptual one; made here because it is useful in furthering understanding of organisational-level emergent features of self-organising change. When domains of emergent organisational change are conceived as macro-level ‘abstractions’ (Stacey, 2010), or ‘hunches’ (Weick, 2011), we view them in the ostensive and notice their separation. This is the horizontal dimension in the framework of self-organising change developed in Chapter 3 (repeated below). Yet, in the performative, we notice that they intertwine in our ‘immersion’ (Stacey, 2010) within the flux (Weick, 2011) of ongoing experience; the vertical dimension.

Figure 8 (repeated): Perspectives on self-organising change



Pattern within domains of emergent organisational change

Human relating is inherently pattern forming (Stacey, 2007: 316). Pattern is a relational concept. A single item/instance is not a pattern. Nor are multiple items/instances, by themselves. Pattern reflects a *judgement* about the relationship between multiple items/instances by an observer. Domains of emergent organisational change reflect judgements about macro-level outcome patterns; very different to considering organisational change in terms of outcome points e.g. achievements against planned change targets. Since self-organising change is understood as continuous, these global outcome patterns are more helpfully understood in processual terms as extracted patterns of “*enactment*”, rather than as “*accomplished events*” (Tsoukas and Chia, 2002).

Differences between domains of emergent organisational change

There are key differences between ‘patterns of events’ and the two thematic domains of emergent organisational change identified at Educase (summarised in Table 33). Patterns of events give shape to what happened at Educase. As discussed, organisational actors pattern events and communicate those patterns through narratives and stories. Their accounts reflect what Langley (1999) terms a narrative strategy of sensemaking from process data, in which time provides the ‘key anchor point’. However, thematic patterns (like ‘changing patterns of relations’ and ‘changing patterns of attention’) are not anchored by time, but by unifying ideas. Time plays a more indirect role as a comparator which facilitates judgement about meaning.

Further, patterns of events are process accounts of things that have happened (albeit those accounts are recreated in the ‘living present’; Stacey, 2007: 263). Outcomes then are historically-orientated and relatively stable; they reflect what has emerged from processes of local interaction. The thematic patterns are oriented more to the present, reflecting what ‘is changing’, rather than changed. As discussed earlier, such outcomes might be understood as temporary/transitory; present and evolving through processes of self-organisation. ‘Changing patterns of attention’ also has a future-focused orientation. For example: the idea that Educase was ‘paused and waiting’ for leadership reflects the *expectation* that the new CE would set direction and stamp his style on things [I1.2]; while expectations of changing student concerns with increasing fees drew attention to ‘students matter’.

Events and their patterning are specific to a case and may, therefore, foster intrinsic understanding of that case (Stake, 1995); an exception may be coarse-grained analyses of events in life-cycle models of organisational change and development (Van De Ven and Poole, 1995). Themes, however, signal more generalised human tendencies to act in certain ways. They reflect a “*socially evolved pattern of activity*” which shapes and is shaped by particular interactions (Stacey, 2007: 306, building on George Herbert Mead’s work). The two global themes outlined here

represent generalised tendencies to act which are particularised in each instance and are patterned across events. Tendencies to act in certain ways are not solely shaped by specific organisational contexts, since human agents do not just interact at work. We may, therefore, notice tendencies to act in particular ways across larger populations, e.g. industries (Abrahamson and Fombrun, 1994; Ogbonna and Harris, 2002) and national cultures (Hofstede, 1980; Trompenaars, 1993). Thus thematic patterns may have instrumental value (Stake, 1995) beyond Educase.

Table 33: Pattern types in domains of emergent organisational change

Pattern type	Domain of emergent organisational change	Anchor point	Temporal orientation	Application
Process	Patterns of events	Time	Past/largely stable -outcomes have emerged; meaning may evolve	Intrinsic
Thematic	‘changing patterns of relations’	Ideas	Present/evolving – outcomes are emerging	Instrumental
	‘changing patterns of attention’		Future expectations may influence evolving outcomes	

7.3.5.2 Adding to the literature

Chapter 2 suggests that emergent change unites a disparate range of approaches in their scepticism of planned change (Livne-Tarandach and Bartunek, 2009). It argues that there is further work to do in developing understanding of emergent organisational change in its own right. Domains of emergent organisational change add to this literature by furthering understanding of the spheres of human activity in which emergent outcomes arise.

Considering ‘what’ changes in emergent organisational has been largely overlooked by processualists (e.g. Weick and Quinn, 1999; Tsoukas and Chia, 2002) focusing on the ‘how’ of organisational change processes. This has left the ‘what’ to be expressed in generic terms: for example as “*endless modifications in work processes and social practice*” (Weick and Quinn, 1999: 366); or as “*a series of ongoing and situated accommodations, adaptations, and alterations*” (Orlikowski, 2001: 184).

In contrast, empirical studies of emergent organisational change often highlight outcomes in case-specific terms e.g. the spread of local practices becoming conceived as single overarching ‘hospitalist’ movement (Wallace and Schneller, 2008). While such studies usefully illustrate that emergent outcome patterns can be discerned and described (highlighted in the review of 17 contemporary studies of emergent organisational change in Chapter 2), their content is idiosyncratic, doing little to further understanding of what changes in emergent organisational change beyond the boundaries of a single case.

Domains of emergent organisational change take the middle ground between generic descriptions of emergent change and idiosyncratic, content-related outcomes reported in individual studies. To illustrate, the three domains of emergent organisational change identified at Educase are used in Table 34 to categorise findings about what changes from the 11 empirical studies included in Chapter 2's contemporary literature review on emergent organisational change. Although there are relatively few mentions of the content of organisational change (this was not the focus of any of the studies), what there is can, largely, be classified under the three domains already identified. The two exceptions concern changing patterns of practice and have been categorised as such. Changing patterns of practice were not evident at Educase, although there were signs that practices might start to change due to the reductions in staff numbers:

"Now what's happening, and I have to say, from the bottom up, because of the [staffing] situation, there's very much a 'well look chaps, we've got to work together' kind of approach... we are making more sparing use of our staffing resource really, with people willing to help each other out with peaks and things... and, there's a willingness but not a comfort there about doing this" [I8.2].

"It's related, I suppose, to the reductions in staff. Structures... at a lower level are changing, and people are doing more work. People are visibly... more occupied in their day. So you've got people learning new skills and trying to do it" [I9.2].

While we cannot point predict macro-level change outcomes in complex organisational systems, these domains of emergent organisational change may help us to theoretically and practically "anticipate" in loose narrative terms (Boisot and McKelvey, 2010) what might change. Thus they may help human actors to notice emerging organisational patterns in FFE conditions and when they themselves are "on the receiving end" (Bartunek et al., 2006a) of organisational change.

Summing up, domains of emergent organisational change represent spheres of human activity which categorise evolving patterns of organisational change outcomes emerging from processes of self-organisation. Domains of emergent organisational change offer a middle ground between generic descriptions of emergent organisational change and idiosyncratic content-related findings.

The domains are interdependent and each reflects change outcomes in terms of patterns, not point outcomes. Since thematic domains of emergent organisational change represent generalised social tendencies to act, the thematic domains noted at Educase may have instrumental value beyond the case. Thus domains of emergent organisational change have anticipatory as well as explanatory potential.

Table 34: Emergent change outcomes

Domain	What changes in emergent change	Source
Patterns of events	Decentralised, grass roots reforms; added up to civil service wide reform	(Kickert, 2010)
	Programme spin-outs, projects not linked to plan	(Esain et al., 2008)
	Many changes occurred 1996-9; began to reshape managerial behaviour/orgl culture	(Burnes, 2004a)
	Fall of Eastern Bloc led to a sequence of events, starting with a crisis in the Cuban management system	(Cunha and Cunha, 2003)
	Managers react to influences and develop specific change initiatives as projects	(Bamford and Forrester, 2003)
Changing patterns of relations	Increase in managerial autonomy of executive government organisations	(Kickert, 2010)
	New pattern of social organisation (manager/state relations) without a priori intention	(Cunha and Cunha, 2003)
	Exposes/empowers new relationships in messy way	(Esain et al., 2008)
	Structure gave rise to rivalry between head office/regional offices; lack of communication	(Burnes, 2004a)
Changing patterns of attention	Spread of local practices became conceived as single overarching 'hospitalist movement'	(Wallace and Schneller, 2008)
	Parallel stories of planned/emergent change	(Page et al., 2008)
	'Playing the change game' - managers wanting promotion had to be seen to support whatever change was currently active	(Bamford, 2006)
	Tension between social model/market orientation led to new interpretive schemes	(Cunha and Cunha, 2003)
	Creation of new organisational meaning; Changes in perceptions of operational managers; Change initiatives pass into organisation's history; legacy of " <i>organisational memories</i> "	(Bamford and Forrester, 2003)
Changing patterns of practice	Big shifts in everyday implementation of process	(Vilkas and Stancikas, 2006)
	Organisations adopting a configuration of managerial practices like market economies	(Cunha and Cunha, 2003)

7.3.6 Key findings

This section has highlighted four findings regarding the emerging organisational patterns that change leaders noticed and interpreted in language.

Noticing and interpreting emerging organisational patterns

F4: Human actors notice emerging patterns and interpret them in language in particular spheres of human activity; domains of emergent organisational change.

F5: Human actors are *attuned* to notice events and interpret them in language; telling narratives and stories of patterns of events.

F6: Human actors notice ‘changing patterns of relations’ and interpret them in language.

F7: Human actors notice ‘changing patterns of attention’ and interpret them in language.

These findings provide empirical support for Goldspink and Kay’s (2010) notion of reflexive emergence in human systems, which rests on the premiss that human agents can notice emergent patterns of social behaviour and interpret them in language. It extends their work by illustrating emergent patterns in three domains of emergent organisational change. It builds on Stacey’s notion of ‘themes of communicative interaction’ (e.g. Stacey, 2007), his term for emergent global pattern, by more fully considering the nature and content of such themes.

These findings also build on literature on emergent change (e.g. Weick, 2000; Orlikowski, 2001) by highlighting domains of emergent organisational change. This addresses the largely overlooked area of what changes in emergent organisational change, providing a middle ground between generic descriptions of emergent organisational change and idiosyncratic content-related findings. In so doing, they build on Livne-Tarandach and Bartunek (2009) and Harkema (2003) by illustrating three spheres of human activity in which transitory change outcomes and temporary structures might manifest.

‘Changing patterns of attention’ extends Tsoukas and Chia’s (2002) discursive dimension to include perception of weak signals which may be experiential rather than interpretive. It also builds on Osborn et al’s (2002) patterning of attention by placing the focus on leaders’ sensemaking of changing patterns of attention.

7.4 Responding to emerging organisational pattern

3b) How do change leaders respond to emerging organisational patterns as they pursue change in organisations?

This section begins with the individual perspective then relates it to the organisational patterns discussed earlier. It highlights fractal self-similarity of responses across levels, and uses that to develop a multi-level typology of domains of emergent change. The typology is a key contribution of this research as it facilitates anticipation and sensemaking of domains of emergent organisational change beyond Educase.

7.4.1 Change leader responses

Empirical evidence from Educase illustrates that human actors respond to emerging organisational patterns in terms of how they feel and think, as well as how they behave. Therefore noticing something different did not necessarily lead to doing something different. So, while CAS has stressed complex adaptive behaviour in human systems, individuals' responses may also be understood in affective and cognitive terms.

Psychology has long assumed that attitudes have affective, cognitive and behavioural components (Ostrom, 1969), and a review of 79 studies of change recipients' reactions to change concludes that explicit reactions to change can be conceptualised in terms of these three attitudinal dimensions (Oreg et al., 2011). The Educase study adds to Oreg et al by illustrating that change leaders also have tri-dimensional attitudinal reactions to organisational change; a reminder that change leaders in self-organising systems are also change recipients (see 7.2.3). As these attitudinal categories already have broad applicability in psychology, we would expect them to have transferability beyond Educase in categorising the nature of change leader responses to emerging organisational patterns.

A further distinction made in Chapter 6 was that individuals may adapt their behaviour to go with or against the flow of emerging organisational patterns. The former produces positive, amplifying feedback, necessary for organisational change; while the latter produces negative, dampening feedback, necessary for organisational continuity. The presence of negative feedback explains why adaptive micro-level behaviour may not lead to adaptive system behaviour. Houchin and MacLean (2005) propose that equilibrium-seeking behaviour is the norm in social systems. This study builds on Houchin and MacLean's organisational-level analysis by highlighting the paradoxical relationship between individual and organisational behaviour: that

micro-level adaptation, rather than a lack of it, may produce negative feedback which dampens organisational adaptation.

Further, Phase 1 equilibrium at Educase was rapid, first-order growth and development; whereas, at Phase 2, the pace of change had slowed with the organisation ‘paused and waiting’. In contrast to Houchin and MacLean’s study, for some change leaders, anxiety was stimulated by this lack of change rather its presence; with one of the most active change leaders expending considerable time and effort “*trying to keep things as I saw it going*”. This illustrates that equilibrium may reflect considerable first-order organisational change; while second-order change to that equilibrium may, paradoxically, result in *less* change. It is therefore helpful to de-couple equilibrium and stability; a reminder why continuity has been used in preference to stability in this thesis.

Finally, Chapter 6 found that emerging organisational patterns had various consequences for the changes that change leaders were pursuing. Some projects were stopped by change leaders waiting for direction; others slowed down, despite the best efforts of those pursuing that change. Two of the most active change leaders turned their attention to change projects in their own areas, rather than organisational projects, to find continuing job satisfaction. Borrowing Oreg et al’s (2011) distinction, these effects might be helpfully understood as indirect change consequences, rather than explicit attitudinal reactions.

Section 7.3 discussed domains of emergent change at an organisational level. What we see here with the affective, cognitive and behavioural responses are three domains of emergent change at an individual level. While the term emergence in CAS is reserved for the process whereby novel, coherent, macro-level structures arise from micro-level diversity among interacting, interdependent agents; what we see from Educase is that domains of emergent outcomes may arise from processes of self-organisation at both individual and organisational levels.

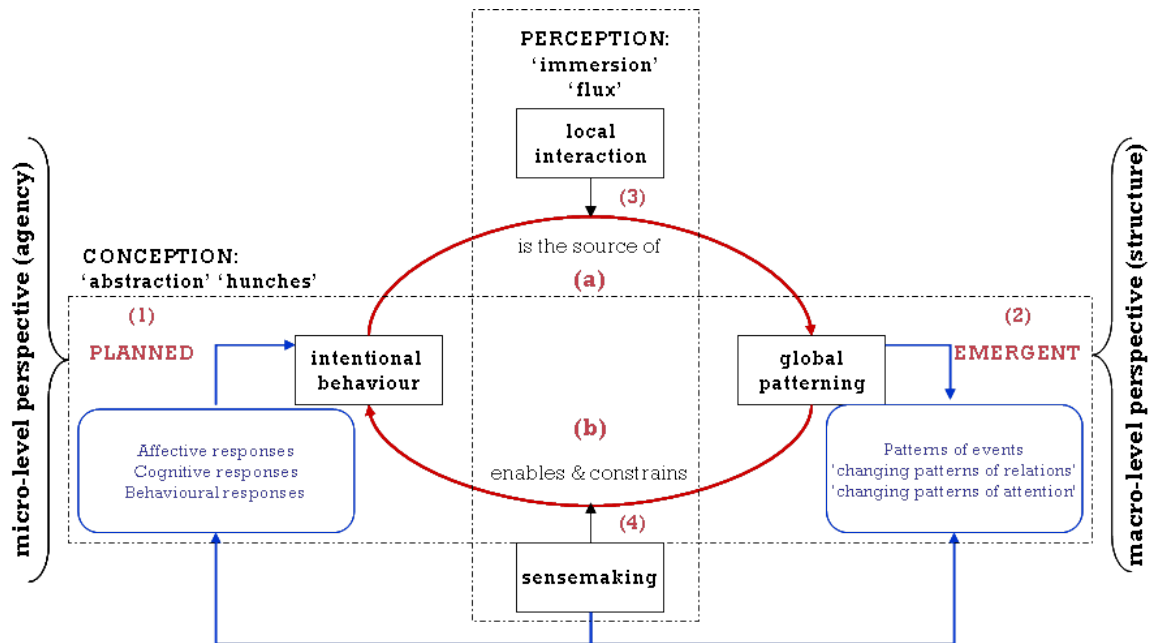
7.4.2 A multi-level typology of domains of emergent change

Patterns of responses

Outcome patterns have now been identified at both organisational and individual levels; characterised as domains of emergent change. Both organisational and individual domains can be understood as patterns of responses which arise from the process of self-organisation at macro and micro-levels, respectively. The organisational domains characterise patterns of responses across populations of interdependent people; while the individual domains characterise response patterns of individual persons. To illustrate, these domains are added to the framework of self-organising change developed in Chapter 3 (see Figure 19). This depiction reminds us that

both sets of domains are conceptual abstractions from the ongoing process of self-organisation; the results of sensemaking.

Figure 19: Emergent responses to processes of self-organisation at Educase



The domains of emergent change in Figure 19 represent conceptual domains categorising the nature of response patterns. Above it was argued that the three individual domains are likely to have transferability beyond Educase for categorising individual-level responses to emerging patterns of organisational change because those categories have already been demonstrated to have wide applicability in psychology. Section 7.3 argued that domains of emergent organisational change are likely to have transferability beyond Educase as they reflect more generalised social tendencies to act across populations of interdependent people, which are particularised in each instance.

Self-similarity across levels

Bringing the organisational and individual-level domains together highlights some self-similarity across the levels. Patterns of events, for example, were earlier described as clusters of temporally and contextually-situated agent actions. There is a clear behavioural component here. The organisational behaviour described in narratives and stories of patterns of events arises from individual behaviour. The behavioural link is also evident in the organisational domain 'changing patterns of relations', which reflects patterns arising from interpersonal processes of relating.

The organisational domain 'changing patterns of attention' has a cognitive connection, as attention is a property of covert cognitive state (Uttal, 2011). It is used here to emphasise two

characteristics; (1) the idea that attention is selective, as William James explains, *“it requires withdrawal from some things in order to deal effectively with others”* (James, 1890: 404; cited in Uttal, 2011: 233); and (2) that it is an outcome of cognitive processing, a response (Allport, 1993; cited in Uttal, 2011). Undoubtedly there are behavioural aspects embedded in this thematic network, for example: stories had to be told, not just thought; managers’ focus had to be signalled through their actions and words. However, ‘changing patterns of attention’ can be considered a cognitive domain of emergent organisational change because it helps to illuminate what populations of people are paying particular attention to and notes how that is changing.

The above examples highlight the manifestation of similar types of response (behavioural and cognitive) at individual and organisational levels. Such fractal self-similarity, where similar patterns are evident at multiple levels of scale, is typical of complex systems (Mitleton-Kelly, 2003). Fractals have often been used (albeit metaphorically, rather than mathematically) in complexity perspectives on organisational change to consider relationships across levels (Eoyang, 2011). For example, Anderson et al (2005) found fractal self-similarity of patterns in a healthcare organisation and suggest that case studies are designed to look for self-similarity in patterns across levels of analysis. It is not a surprising finding since Figure 19 illustrates that micro/macro represent alternative perspectives an observer may take on a single process of self-organisation.

Using this observation of self-similar patterns across levels, Table 35 starts to develop a new multi-level typology which classifies the individual and the organisational domains of emergent change found at Educase. It uses the established framework of response categories at an individual level in order to advance understanding of patterns across populations of interacting individuals at an organisational level. Applying human characteristics to organisational entities could be criticised for inappropriately anthropomorphising organisations (Stacey, 2003). However I am not claiming that organisations can feel, think and act. Rather, I am proposing that we can notice patterns relating to affect, cognition and behaviour across populations of interdependent people.

Table 35: Domains of emergent change (an empirically-derived framework)

Category	Domains of emergent change	
	Individual	Organisational
Affective	Feelings	
Cognitive	Thoughts	‘changing patterns of attention’
Behavioural	Behaviours	‘changing patterns of relations’ Patterns of events

Affective organisational patterns

What the typology at Table 35 immediately highlights is that no affective domains of emergent organisational change were identified at Educase. I therefore returned to the organisational literature and then to case data to consider whether there may be affective patterns of emergent change at an organisational level.

The literature was encouraging. It discussed emotional contagion in groups (Barsade, 2002) and highlighted collective, affective patterns of: organisational energy (Cole et al., 2005; Bruch and Vogel, 2011; Cole et al., 2012); emotional culture (Härtel, 2008); emotional climate (Rivera, 2009); and organisational emotional intelligence (Menges and Bruch, 2009). It observed shared emotion in resistance to strategic change (Balogun et al., 2010) and argued that collective emotional responses are *“tightly woven throughout the process of strategic change”* (Sanchez-Burks and Huy, 2009: 22). Further, Sanchez-Burks and Huy describe strategic change as *“an emotion-laden context where collective emotions are likely to change, gradually or suddenly”* (p25). This suggests that one may well notice changes to affective patterning, such as ‘changing patterns of emotion’ as a transitory outcome of organisational change.

Returning to Educase, my initial coding included 26 quotations for the code ‘Climate: morale’; all from Phase 2 interviews. Some quotations referred to affective responses at an organisational level and described an emotionally charged context: low morale, increased unhappiness, negativity, stress and anger (illustrated at Table 36). All references to collective affect referred to negatively-valenced emotions.

Table 36: Affective patterns at Educase

Affect	Illustration
Low morale	<i>“The low morale really ripped the place apart in the latter half of the year. On both campuses there were tears and sadnesses and all sorts of things like that”</i> [I3.4]
Unhappiness	<i>“In terms of us being a confident, happy community, with our various missions, moving forward in a meaningful way, I think some of that has been lost... I think there’s more unhappiness in the people involved”</i> [I2.3]
Negativity	<i>“We have to rebuild everybody back to a kind of positive place, instead of being quite negative about everything and seeing everything in a negative way”</i> [I9.2]
Stress	<i>“Staff are under stress... we’re all very stretched, like an elastic band, stretched to breaking point”</i> [I10.2]
Anger	<i>“We’re pissed off”</i> [I15.1]

The language also became stronger. At Phase 2, some people talked about everyone being ‘pissed off’. This was used in context to denote people being fed up, annoyed and downright angry (distinctions more apparent in tone than text). *“Now people are willing to say what they really*

think” [I10.2] suggested one interviewee, having described a long list of grievances which he felt had eroded staff goodwill.

While the above quotations do illustrate ‘changing patterns of emotion’, there was less data here; far less than that used in developing the two thematic networks of ‘changing patterns of relations’ and ‘changing patterns of attention’. This, once again, illustrates the difficulties of even noticing emerging organisational patterns whilst ‘in the midst’ of change. Even in studies where less data does not signify lesser importance, it is easy to overlook weaker signals.

It is helpful, nonetheless, to consider why there may have been less data at Educase relating to ‘changing patterns of emotion’. There are two main explanations. Either there was little change in patterns of emotion across Educase, or my research did not pick them up. Since the above quotations indicate increasing negative affect, the first explanation seems unlikely. There are three reasons why my research may not have picked up changing affective patterns across Educase; probably all three had a part to play. Firstly, perhaps the research instruments and protocols used were not suited to the task of identifying affective patterns. They did not include specialist instruments (e.g. organizational energy measure; Cole et al., 2005) or interview questions which directly asked about the valence of emotion (the degree to which it is pleasant/unpleasant), or the level of arousal/activation of that emotion (used in circumplex models of affect; Russell, 1980). Secondly, perhaps interviewees found it hard to notice and interpret collective affective patterns in language; and my sensemaking relies largely on their sensemaking. Thirdly, perhaps interviewees did notice affective patterns across Educase, but chose not to talk about them.

There is support for the last two from Sanchez-Burks and Huy (2009) who emphasise the importance and the difficulty of change leaders accurately reading collective emotions (‘emotional aperture’) during strategic change. They identify perceptual hurdles including a disposition in western society to filter out emotional information at work in service of ‘professionalism’, which creates emotional blind spots. They also note difficulties in accurately perceiving the emotional composition of a collective, including affective distributions across groups, rather than focusing on a modal group emotion. Further, they acknowledge the additional pressure and demands on change leaders during times of strategic change, which may redirect their attention. They conclude that, while important, *“change leaders’ dynamic use of emotional aperture is neither natural nor easy”* (Sanchez-Burks and Huy, 2009: 30). My finding that change leaders are also change recipients (see 7.2.3) suggests an additional hurdle. If a change leader’s own emotional state is more heightened or dynamic, it may influence their perception of the emotional composition of a collective of which they are part.

There may also be particular contextual factors at play here. Section 7.3.2 observed that interviewees seemed attuned to noticing events, and conjectured that the scientific environment may orient them towards ‘objective’ observations. Such an orientation may also work in reverse. Interviewees may be attuned to disregard what they perceive to be subjective and idiosyncratic observations, or conditioned to factor them out of their reports; the filtering process noted by Sanchez-Burks and Huy (2009). Interestingly most of the quotes about emotions came from people I had met more than once, so the quality of relationship may have encouraged them to set aside cultural norms to proffer what they had noticed. Secondly, it may also reflect top managers’ concerns about managing positive messaging. For example, towards the end of a particularly positive Phase 2 interview, a top manager explained that he thought people were looking for reassurance against a background of uncertainty and commented; *“I do think that there is one thing that we do have to do... is to try to be upbeat”* [I12.2]. As previously acknowledged, the reflexivity of human agents allows people to make distinctions on prior distinctions and decide how to act (Goldspink and Kay, 2010).

To conclude, there is some support in both the literature and the empirical data for the notion of an affective domain of emergent organisational change; ‘changing patterns of emotion’. Further, the literature offers good reasons to suppose that the relative dearth of collective affective empirical data may result from difficulties in detecting collective emotional patterns. It was, therefore, retained as a category in the initial typology of domains of emergent organisational change.

Other organisational patterns

The literature review of empirical studies of emergent organisational change highlighted a further potential domain ‘changing patterns of practice’. This is another behavioural pattern and can also be classified in the typology; updated at Table 37.

Table 37: Multi-level typology of domains of emergent change

Category	Domains of emergent change	
	Individual	Organisational
Affective	Feelings	‘changing patterns of emotion’*
Cognitive	Thoughts	‘changing patterns of attention’
Behavioural	Behaviours	‘changing patterns of relations’ ‘changing patterns of practice’** Patterns of events

*Limited evidence from Educase

**From literature review of empirical studies of emergent organisational change reported at Table 34

7.4.3 Value of the typology

As Chapter 3 explained, complexity illustrates that the agency of change leaders is constrained. While they can plan and choose their inputs, no one can plan, control or predict outcomes of organisational change.

While the agency of change leaders is constrained, their action matters. Emergent organisational outcomes only arise from what everyone is doing and not doing; there is no other special force involved in self-organisation (Stacey, 2007). Emergence in human systems is considered to be reflexive; suggesting that human agents can notice and interpret emerging organisational patterns, and choose how to respond (Goldspink and Kay, 2010). Complexity studies have highlighted the importance of a sensemaking role; where change leaders' sensemaking/sensegiving about emerging organisational patterns helps create macro-level correlation (Lichtenstein and Plowman, 2009). Further, learning models tend to provide better firm and industry-level fitness than random models, so, despite the fact that this may not be true for every firm, in general there is practical value in learning from emergence (Allen et al., 2006). The implication is that making the most of limited agency entails mindful responses to emerging organisational patterns; double-loop learning, which uncovers norms and questions hidden theories of action (Argyris, 1977).

Yet, this chapter has already highlighted the non-trivial challenges facing change leaders attempting to make sense of emerging organisational patterns 'in the midst of change': in FFE conditions; when they too are on the receiving end of organisational change; and cannot stand outside their own local perspective. Practically, making sense of emerging organisational patterns is not easy. In the face of those challenges, the value of this typology is in helping to anticipate the nature of emerging organisational patterns, so we know what kinds of things to look out for, and to help us make sense of emerging organisational patterns when signals are weak.

7.4.4 Key findings

This section has highlighted three main findings:

Patterning of emergent responses

F8: Individual change leaders respond to emerging organisational patterns affectively, cognitively and behaviourally.

F9: When conditions change, micro-level adaptation may not lead to adaptive macro-level behaviour.

F10: There is fractal self-similarity between individual and organisational response patterns across populations of interdependent people in organisations: both may be categorised in affective, cognitive and behavioural terms.

F8 adds to Oreg et al (2011) by observing that, like change recipients, change leaders also respond to organisational change in terms of their explicit affective, cognitive and behavioural reactions. This finding adds to our understanding of reflexive emergence (Goldspink and Kay, 2010) by illustrating the nature of people's responses and reminding us that not all responses are behaviours which may be chosen. **F10** builds on Oreg et al by illustrating that tri-dimensional reactions to change may be manifested across populations of interdependent people in organisations. **F9** adds to Houchin and MacLean (2005) by illustrating why non-adaptive macro-level behaviour may arise from adaptive micro-level behaviour when conditions change.

7.5 Summary of findings

This chapter has highlighted ten findings from Educase, which expand on the existing complexity and organisational change literature to offer new insights into three areas (see Table 38). The first group of findings emphasises the difficulties facing change leaders in noticing and interpreting emerging organisational patterns in self-organising change. The second group highlights the emerging organisational patterns arising at Educase in specific domains of emergent organisational change. The third group considers the patterning of emergent responses at and across individual and organisational levels.

These findings extend existing work in four main areas: reflexive emergence; complexity leadership; sensemaking/affect in organisational change; and emergent organisational change.

They extend theoretical work on reflexive emergence (Goldspink and Kay, 2010) through their empirical insights into the challenges and content of the emerging organisational patterns that human agents notice and interpret in language; and through their exploration of the nature of change leader responses, which highlight that change leaders do not simply choose behavioural responses.

They expand on retrospective studies which highlight the importance of sensemaking in the leadership of emergence (i.e. Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007b; reviewed in Lichtenstein and Plowman, 2009), by illustrating some of the practical difficulties facing change leaders in the midst of change.

They extend work on sensemaking and affect in organisational change (e.g. Bartunek et al., 2006a; Balogun et al., 2010; Oreg et al., 2011) by illustrating that change leaders are also on the receiving end of change in self-organising systems.

Finally, they build on organisational change work (e.g. Weick, 2000; Livne-Tarandach and Bartunek, 2009; Burnes, 2009a) by furthering understanding of what changes in emergent organisational change; an area largely overlooked in the literature.

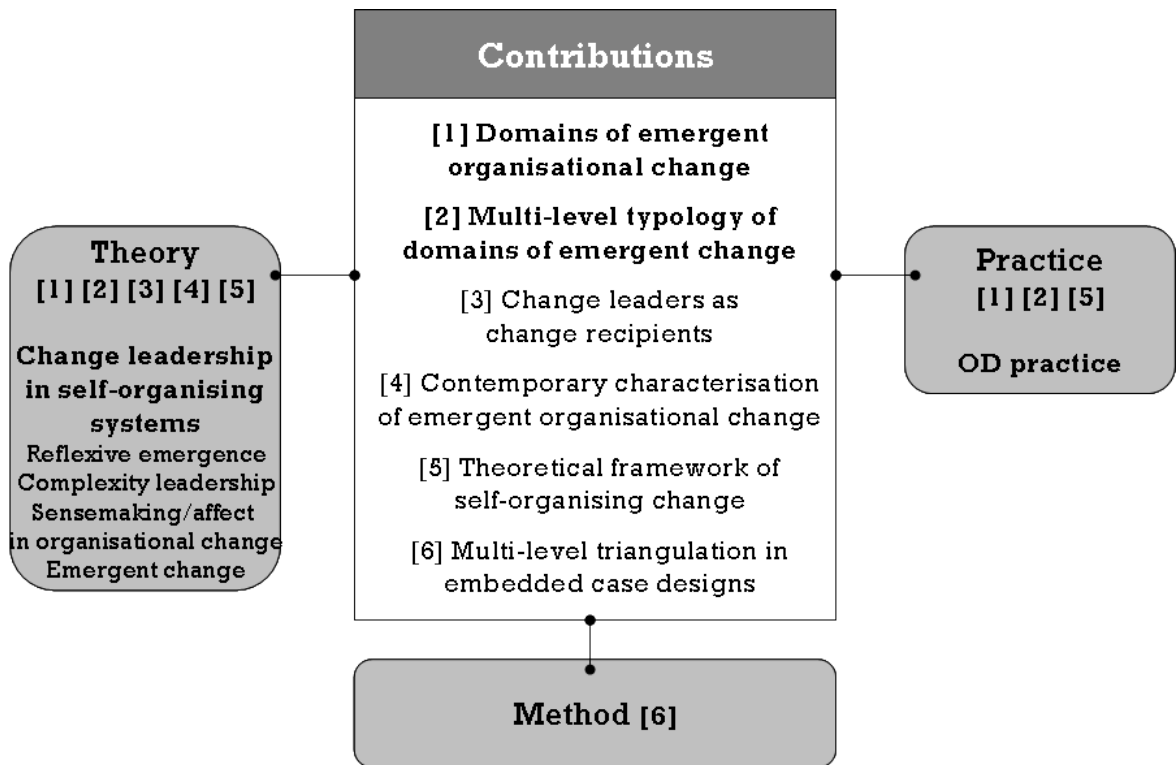
Table 38: Summary of research findings

		Finding	Extends
Challenges of sensemaking in self-org chg	F1	In FFE conditions, ontological issues may underlie epistemological difficulties experienced by change leaders in noticing and interpreting emerging organisational patterns	Sensemaking in leadership of emergence (e.g. Lichtenstein and Plowman, 2009) Sensemaking/affect in organisational change (Bartunek et al., 2006a; Balogun et al., 2010) Reflexive emergence (Goldspink and Kay, 2010)
	F2	When organisational change is understood as self-organising, initiators of change are also recipients of that change; posing challenges for change leaders seeking to notice and interpret emerging organisational patterns	
	F3	Individual change leaders notice local patterns and interpret them idiosyncratically; posing challenges for change leaders seeking to notice and interpret emerging organisational patterns	
Noticing/interpreting emerging orgl patterns	F4	Human actors notice emerging patterns and interpret them in language in particular spheres of human activity; domains of emergent organisational change	Reflexive emergence (Goldspink and Kay, 2010) ‘Themes of communicative interaction’ (Stacey, 2007) Emergent change (e.g. Weick, 2000; Orlikowski, 2001) Transitory change outcomes/temporary structures (Livne-Tarandach and Bartunek, 2009; Harkema, 2003) Patterning of attention (Osborn et al., 2002) Discursive dimension (Tsoukas and Chia, 2002)
	F5	Human actors are attuned to notice events and interpret them in language; telling narratives and stories of patterns of events	
	F6	Human actors notice ‘changing patterns of relations’ and interpret them in language	
	F7	Human actors notice ‘changing patterns of attention’ and interpret them in language	
Patterning of emergent responses	F8	Individual change leaders respond to emerging organisational patterns affectively, cognitively and behaviourally	Reflexive emergence (Goldspink and Kay, 2010) Reactions to organisational change (Oreg et al., 2011) Equilibrium-seeking behaviour in complex human systems (Houchin and MacLean, 2005)
	F9	Micro-level adaptation may not lead to adaptive macro-level behaviour	
	F10	There is fractal self-similarity between individual and organisational response patterns across populations of interdependent people in organisations; both may be categorised in affective, cognitive and behavioural terms	

7.6 Contribution

This thesis makes contributions to theory on change leadership in self-organising change; to OD practice; and to case study method, summarised in Figure 20.

Figure 20: Contributions



7.6.1 Contribution to theory

This thesis makes five contributions to theory. Its primary contributions come from the empirical study and have been developed in this chapter: the identification of domains of emergent organisational change; and the multi-level typology for classifying those domains. A third contribution from the empirical study stems from its illustration that change leaders, like change recipients, are on the receiving end of change. Two further contributions arise from the theoretical work in Chapters 2/3: the contemporary characterisation of emergent organisational change in its own right; and the theoretical framework depicting self-organising change.

The two primary contributions further understanding of what is changing in emergent organisational change by [1] identifying ‘domains of emergent organisational change’ in terms of evolving patterns of behavioural outcomes in particular spheres of human activity, which occupy a middle ground between highly generic process descriptions and highly idiosyncratic outcomes; and [2] proposing an initial typology for classifying these and other domains of emergent

organisational change. Although what changes at a macro-level cannot be predicted, the domains and the typology may help scholars to theoretically anticipate and make sense of organisational patterns which are emerging and outcomes which may only be transitory.

This ability to characterise domains of emergent organisational change complements processual theories of continuous change and self-organisation in organisational studies, which focus on how and why such patterns emerge. Considering what changes in emergent change is a neglected area. It has been considered in very general terms e.g. as “*ongoing accommodations, adaptations and alterations*” (Weick, 2000: 237) and as “*themes of communicative interaction*” (Stacey, 2001: 141). It has also been considered in terms of content-specific emergent outcomes idiosyncratic to their local context (e.g. the 'hospitalist movement', Wallace and Schneller, 2008). The domains identified here, and the associated typology, offer further definition to the generic conceptualisations and potentially greater transferability to other organisational contexts than the description of highly case-specific outcomes.

Livne-Tarandach and Bartunek (2009) introduce the notion of the vitality of a (planned) change effort as a “*transitory outcome*” of change. This study extends that work by highlighting two transitory outcomes of (emergent) change; ‘changing patterns of relations’ and ‘changing patterns of attention’. The domain ‘changing patterns of relations’ adds empirical support to Harkema’s (2003) finding of temporary structures representing changing patterns of relations between people within innovation projects in her agent-based model. ‘Changing patterns of attention’ adds to Osborn et al’s (2002) notion of the patterning of attention as an informational dimension of leadership by conceptualising it as a domain of emergent organisational change. It also extends Tsoukas and Chia’s (2002) conceptualisation of an emergent discursive dimension in organisational change by illustrating the more weakly discursive aspects encompassed within ‘changing patterns of attention’.

Finally, the domains of emergent organisational change and the typology extend work on reflexive emergence (Goldspink and Kay, 2010) by providing empirical support and detail for the theoretical conjecture that human agents notice emerging patterns, interpret them in language and choose how to respond.

The third contribution [3] of the empirical study is its illustration that change leaders are “*on the receiving end*” of change (Bartunek et al., 2006a). Like change recipients, they too have positive and negative feelings about organisational change; struggle to make sense of it; and respond affectively, cognitively and behaviourally. This confirms and extends the scope of findings from studies of sensemaking and affect in organisational change, which have typically differentiated

between initiators and recipients of organisational change (e.g. Bartunek et al., 2006a; Balogun et al., 2010; Oreg et al., 2011). Removing this distinction between initiators/recipients of change helps to develop a more nuanced understanding of the complexities of change leadership.

The reasons why change leaders are also recipients of change have been clearly made in CAS and were elaborated earlier in this thesis. However, insights from this study about the nature of being 'on the receiving end' expand on theoretical studies of emergence in human systems (e.g. Goldspink and Kay, 2010) by explicitly considering the effects of emergent organisational patterns on individual human agents.

Being 'on the receiving end' of change highlights the challenges facing change leaders in making sense of emerging organisational patterns in self-organising change. These insights extend complexity leadership studies, which have highlighted the importance of change leader sensemaking during change, but have underplayed the difficulties involved from their after-the-fact vantage point (Lichtenstein, 2000; Chiles et al., 2004; Plowman et al., 2007b; Lichtenstein and Plowman, 2009). In those studies, transformation has been 'accomplished' (to use terminology from Tsoukas and Chia, 2002); whereas my study offers insights from an organisation 'in the midst of change' and thus highlights difficulties which were not apparent in that previous work.

The fourth contribution (from Chapter 2) is the contemporary characterisation of emergent organisational change: its sources; outcomes; process characteristics; and intervention strategies [4]. This highlights the centrality of people: embedded actors are the sources of emergent organisational change; it is accomplished through them; and it is they who discern and describe outcomes.

By increasing clarity about the nature of emergent organisational change in its own right, this contribution builds on Weick's (2000) influential work and other studies which have juxtaposed planned and emergent change (e.g. Bamford and Forrester, 2003; Cunha and Cunha, 2003; Burnes, 2004a; Esain et al., 2008). This characterisation of emergent organisational change foregrounds the centrality of agency; something that tends to disappear into the background when emergent change is counterpointed with planned.

The fifth contribution (from Chapter 3) comes from the theoretical framework of self-organising change [5]. This framework clarifies the relationship between planned/emergent change; and focuses attention on purposeful change leaders in self-organising change.

The framework illustrates how planned/emergent change are connected and explicates the nature of their mutually informing relationship (in response to Livne-Tarandach and Bartunek, 2009). By showing that planned and emergent change are interdependent and ‘mutually constituting’ (Stacey, 2007), it makes a stronger statement about the relationship between planned/emergent change than Bartunek and colleagues. While Bartunek and colleagues propose that appreciating the contribution of both poles is necessary to produce optimal solutions (Seo et al., 2004; Livne-Tarandach and Bartunek, 2009), and Eoyang (2011) makes a similar point, my framework makes it clear that there is no choice to be had between planned and emergent change. Organisational change is, paradoxically, simultaneously planned at the micro-level and emergent at the macro-level. While these dynamics are well-understood in the complexity field, they have not explicitly been used like this before to connect the constructs of planned and emergent organisational change; Livne-Tarandach and Bartunek (2009) only discuss CAS’ promise as a connection frame.

The framework furthers understanding of change leadership in self-organising change by integrating thinking about CAS in human systems (Stacey, 2007); reflexive emergence (Goldspink and Kay, 2010); intentional behaviour (Ajzen, 1991; 2012) and sensemaking (Weick, 1995) within a coherent framework. It builds on each by using them together to develop a more complete picture of human agents in self-organising change across individual and organisational levels.

7.6.2 Contribution to practice

Making a contribution which offers “*practical utility*” for managers, as well as “*scientific utility*” for the academic community, means starting with real world problems, not just gaps in the literature (Corley and Gioia, 2011). This research does that by grappling with the tricky issue of what self-organising change means for change leaders; real people, in real organisational contexts, who are pursuing change.

To reiterate the practical problem:

Chapter 1 proposed that change leaders feel pressure to deliver change across organisations; perhaps through delegated responsibility for particular programmes, or simply from the weight of expectation on top managers (like Educase’s new CE) to ‘transform’ organisations (the ‘cult of change’, Hodgson, 2011c). They may find themselves embroiled in multiple, overlapping, evolving, change programmes, propelled by a strong sense of urgency. Perceived failure to deliver may lead to diminished career prospects, self-esteem, even livelihoods.

Yet, as Chapter 3 illustrates, self-organisation firmly denies that change leaders can be in control of change. Therefore, however well they plan, organisational outcomes may be unintended, even detrimental to what they worked for. Remaining ‘in charge’ without being in control can be anxiety-provoking, especially when the personal stakes are high. Rather than drop the illusion of control, I suggest that many change leaders revert to the arena of planned change and try, *even harder*, to manage it.

However, paying more attention to planning may mean that *less* perceptual resource is devoted to noticing emerging global outcomes. Therefore, rather than human agents responding reflexively to emerging organisational patterns, as Goldspink and Kay (2010) suggest, they may respond more automatically; in the manner of single-loop, rather than double-loop learning (Argyris, 1977).

Yet, we should not be surprised if anxious, under-pressure people revert to planned change. Despite a wealth of complexity research, it has been marginalised in management practice (Stacey, 2010). Complexity approaches are often lumped in with emergent change, which tends to understate the role of purposeful organisational actors; largely they have been invited to stand back and let change happen. I deliberately overstate the case here, to emphasise my point about why people may feel there are few viable alternatives to planned change.

Against that backdrop, I suggest that making a meaningful contribution to practice requires two things. Firstly it entails helping change leaders to understand the nature of self-organising change and its implications for their role, particularly the scope for and limitations to their choices. Secondly it means helping them to notice and interpret emerging organisational patterns, itself a challenging endeavour, in order that they may make mindful choices about how they respond. After all, while we may never have perfect (i.e. predictive) information ahead of time, as Stacey (2012) points out, we have to act.

To those ends, this thesis makes three contributions to practice; all based on the principle that sensegiving from this study can be applied to assist organisational actors with sensemaking in their own contexts:

Firstly, the domains of emergent organisational change [1] identified at Educase (patterns of events, ‘changing patterns of relations’ and ‘changing patterns of attention’) may help to sensitise change leaders to the type of global patterns which might emerge in their own organisational contexts. Although the detail of the domains is particular to

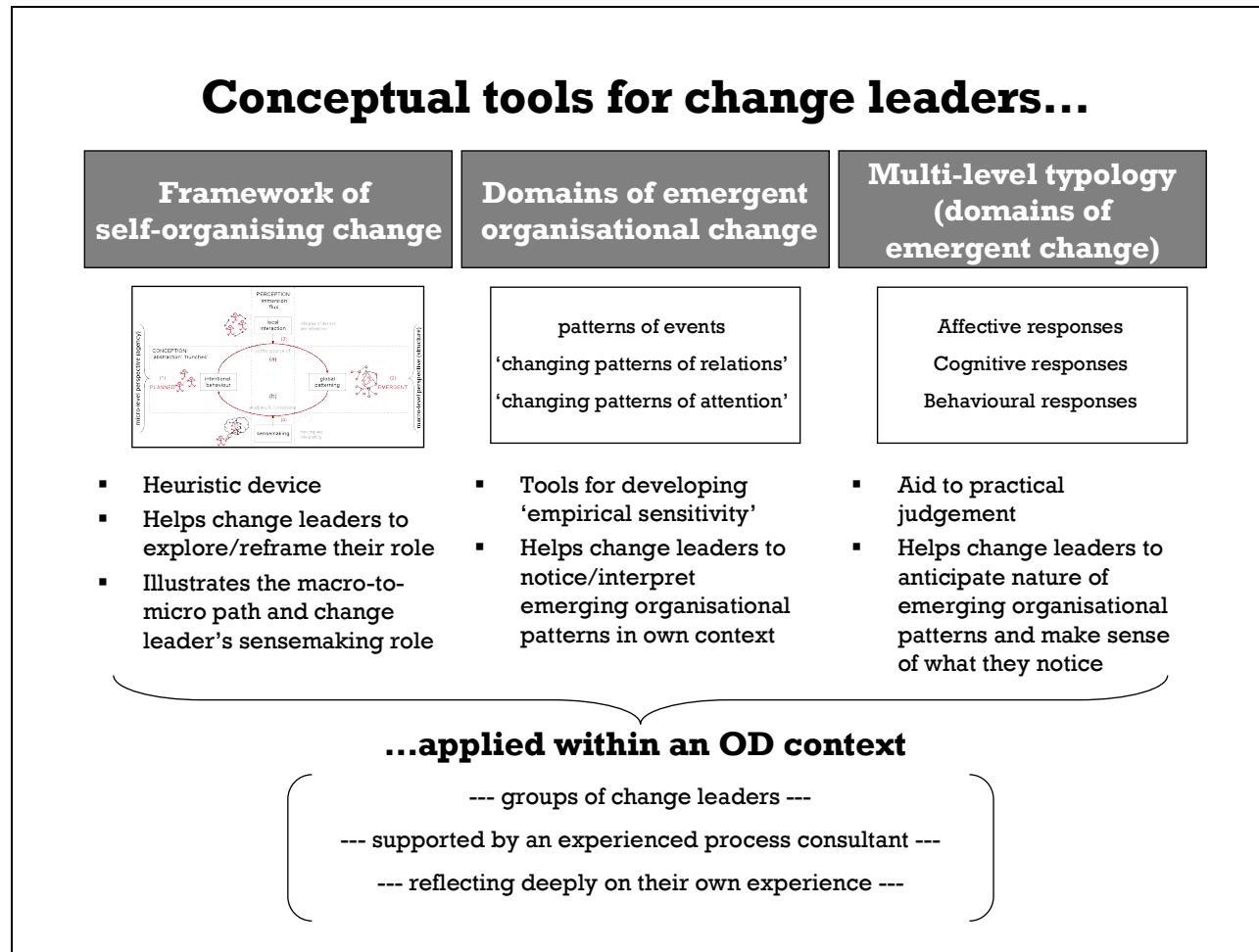
Educase, it may provide useful texture about specifics that change leaders noticed and interpreted. Borrowing from Glaser and Strauss' (1967) notion of theoretical sensitivity, these domains and the thematic networks underlying them could help change leaders develop an empirical sensitivity; helping them to apprehend what is going on in their own context, by comparing and contrasting what they notice with the Educase findings.

Secondly, the typology which categorises domains of emergent organisational change in affective, cognitive and behavioural terms [2] provides a framework to help change leaders anticipate the nature of organisational patterns which may manifest in their own context, and make sense of what they notice. The typology is designed to stimulate reflection, not to constrain it; providing an aid to 'practical judgement' (Stacey, 2012). Comparing and contrasting the nature of emerging global patterns with categories in the framework may help change leaders to interpret the patterns; but it may also serve to challenge and extend the framework.

Thirdly, the framework of self-organising change [5], developed in Chapter 3, has practical utility as a heuristic device which clearly illustrates the mutually reinforcing relationship between planned and emergent change. In particular it makes explicit the macro-to-micro relationship (often neglected in the change management literature), and highlights the role of sensemaking within that dynamic. In so doing, it offers change leaders a framework within which to explore, and perhaps reframe, their change role. It may help them to develop their understanding of the limits of planned behaviour, even for the most powerful people, and the importance of paying attention to weak signals about patterns which are emerging and outcomes which may only be transitory.

As Chapter 1 states, my aim was to inform OD practice by making a meaningful contribution to OD's "*unfinished business*" in developing organisational change expertise (Burke, 2011). I suggest that these three contributions offer conceptual 'tools' which may usefully be applied within an OD context; i.e. within groups, with the support of an experienced process consultant to support and challenge group members to reflect deeply on their experience (see Figure 21). They offer stimuli for people to abstract from and reflect on their own experience ('reflection-on-action'; Schön, 1983), helping them to recognise patterns which are emerging across their own organisation through processes of interaction. They could also be used to prompt thinking about that thinking in order to engage in the reflexive inquiry that Stacey (2012) advocates in developing practical judgement. The hoped for outcomes from these reflexive processes is mindful action ('reflection-in-action'; Schön, 1983).

Figure 21: Conceptual ‘tools’ for change leaders



Section 8.3's methodological reflections offer insight into how these contributions to practice may be applied using action research. Appendix H illustrates how an OD practitioner supporting culture change might use these contributions to inform his/her practice.

7.6.3 Contribution to method

This study makes a contribution to method and methodology by illustrating the analytic benefits of multi-level triangulation in qualitative case study research [6].

Triangulation in qualitative research is often considered in terms of Denzin's (1978) four types: data triangulation; investigator triangulation; theory triangulation; and methodological triangulation. While case-study methodologists Yin (2009) and Stake (2006) both recommend data triangulation to increase confidence in assertions made, neither discusses the potential analytic benefits of multi-level triangulation in embedded case designs. Despite increasing interest in multi-level theorising (Rousseau, 2011), its promise has not yet been met (Uhl-Bien and Rousseau, 2012).

This study strengthens the rationale for multi-level triangulation in embedded case designs by highlighting how analytic patterns, which may be more empirically evident and fully considered in the extant literature at one level of scale, may enhance analysis at another level. This way of bringing multiple perspectives to bear on empirical phenomena is a form of multi-level triangulation; where triangulation is understood as a means of enriching understanding by producing a more complete picture of investigated phenomena (Kelle, 2001: paragraph 8; Moran-Ellis et al., 2006).

Analytical categories derived from the embedded cases of individual change leaders were used to inform understanding of patterning at an organisational level. The well-understood psychological framework of affective, cognitive and behavioural categories (Ostrom, 1969), was used to provoke further exploration of emerging organisational patterns. As discussed in 7.4, this raised questions about whether and how the organisational patterns identified might be understood as collective manifestations of cognitive and behavioural responses. It also raised questions about potential gaps in the organisational data (i.e. little evidence of affective organisational patterns); prompting a review of the initial analyses and a return to the literature. Thus, from triangulating the individual level analytic categories and the literature on collective affective patterns in other organisational contexts, I was able to conjecture about why there was only weak evidence of collective affective patterns at Educase and to argue for retaining that category for substantiation with further research.

Some may be put off multi-level triangulation by warnings that multi-level theorising “*continues to be treacherous conceptual terrain*” (Whetten, 2002: 54). Whetten highlights the danger of bringing cross-level concepts together without specifying the cross-level effects and processes. Here, however, the comparison is not between ‘individuals’ and ‘organisations’ in the manner of apples and oranges. Rather, the comparison is between observed effects, over time, at different levels of scale within a social system; individual persons and interdependent people. The conceptualisation of self-organisation as local agent interaction (Stacey, 2007) helps us here. If agents are human beings, and agency stems from their interaction, then whatever level of scale we use to consider its emergent effects (e.g. team, organisation, industrial sector), those effects all arise from that process of local agent interaction. A second danger with multi-level theorising is circular reasoning, e.g. using individual and organisational level results to prove each other. Here the individual level framework was not used to prove, but to provoke further exploration. It prompted a return to the literature and the empirical data, helping to enrich understanding about the nature of organisational patterns.

So, although multi-level triangulation needs to be applied with care, this research illustrates that, when used appropriately, it can enrich understanding of complex phenomena within embedded case study designs.

Chapter 8: Reflections

*“We can begin the journey towards perfect instrumentality;
we can never complete it... we must undertake a process of life-long discovery
and of owning and refining our instrumentality”*

(Cheung-Judge, 2001: 16)

8.1 Overview

The qualitative researcher is an “instrument”, collecting data by “observing action and contexts” and analysing it “using his or her own personal experience in making interpretations” (Stake, 2010: 20). The OD practitioner too is an instrument and, as Cheung-Judge contends (above), refining instrumentality is a life-long journey. In that spirit, this final chapter offers reflections on the research and my research journey. Successful completion of a doctoral study is a major milestone for a scholar; but continued reflection, including self-reflection, will deepen that scholarship.

Reflecting first on the reported research, this chapter discusses the strengths and limitations of the focal theory and methods used, and considers alternatives (section 8.2), before identifying opportunities for further research (section 8.3). Then it offers my personal reflections and highlights my learning from the research process (section 8.4); finishing with some concluding remarks (section 8.5).

8.2 Methodological reflections

8.2.1 Focal theory

Self-organisation

This study applies CAS’s notion of self-organisation as a focal theory to reframe organisational change as self-organising. Within that reframing, it then considers change leaders’ sensemaking of emerging organisational patterns and transitory outcomes. However, as “the theory selected allows the researcher to see some features at the cost of missing others” (Osborn et al., 2002: 799), it is helpful to reflect on that theory in use and consider alternative approaches.

Although I use the term ‘self-organisation’ in this thesis, it comes coupled with the notion of emergence, so some scholars refer to “*emergent self-organisation*” whereby systems achieve order through local interaction, rather than central control (e.g. Plowman et al., 2007b) ⁴¹. Self-organisation also implicitly references the two-way micro/macro relationship between the ‘self’ (the system) and its organising agents; made explicit in my theoretical framework. Several characteristics of CAS are embedded in the idea of self-organisation: connectivity and interdependence between agents; positive and negative feedback loops; non-linear system behaviour; and the possibility of novel, unpredictable outcomes at a system-level.

So, while I have defined and used the term precisely in this thesis, ‘self-organisation’ comes loaded with notions of how complex adaptive systems work. I therefore agree with Plowman et al (2007b: 342) that emergent self-organisation is a central principle of complexity theory. Not as broad as complexity theory, but more than a characteristic of complex systems, self-organisation says something important about how complex systems function. I found it a fruitful way to bring clarity to the (non-linear) relationship between planned and emergent change and thus bring a complexity focus to the empirical case.

What self-organisation does less well, however, is consider the particular nature of *human* agents. It focuses attention on interactions between heterogeneous agents, and their emergent outcomes, rather than exploring the nature of the agents themselves. Further, self-organisation highlights behavioural similarities between populations of interacting agents across various types of system, not just human. That is why I follow Goldspink and Kay’s (2010) reflexive emergence and also why I introduce sensemaking (Weick, 1995) and Ajzen’s (1991) TPB into my theoretical framework. Structuration theory offers an alternative way of addressing this limitation.

Structuration theory

Structuration theory (Giddens, 1986; 1993) rejects the dualism of individual and society. Instead, it proposes a duality whereby action and structure are mutually forming in recursive social practice. That duality is similarly expressed in Stacey’s (2001) complex responsive processes, and is congruous with complexity’s notion of reciprocal causation (Juarrero, 2000), which is central to the theoretical framework presented in Chapter 3. A further parallel, also taken up in Stacey’s work and reflected in this study, is Giddens (1993: 5) insistence that, even for human agents, “*there can be no stepping outside of the flow of action*” either logically or practically. That is what makes macro-level sensemaking so challenging, and makes the research questions at the heart of this study, which ask what emerging organisational patterns change leaders notice, interpret and

⁴¹ As discussed earlier, I decided to focus on self-organisation because the term ‘emergent’ is used differently across the two main bodies of literature. In organisational change it has a rather imprecise meaning; often used to denote change that is NOT planned or formally sanctioned by top managers at the outset. In CAS it has a more precise definition; referring to the macro-level outcome of iterated local agent interaction.

respond to, so interesting. In these ways, therefore, structuration theory could have offered a viable alternative to self-organisation as a focal theory for this study.

One advantage of structuration theory over self-organisation is its focus on social systems, which highlights characteristics particular to human agents. For example, Giddens (1986) discusses the knowledgeability and intentionality of human agents and highlights their “*reflexive monitoring*”; a kind of sensemaking (though he does not use that term) of the flow of action of which they are part. However complexity work on complex responsive processes (Stacey et al., 2000; Stacey, 2001; Stacey, 2012) and reflexive emergence (Goldspink and Kay, 2010) do address issues of knowledgeability and intentionality in human systems. Indeed Goldspink and Kay acknowledge structuration theory's contribution to their thinking.

As Giddens (1993: 5) explains, however, structuration theory is primarily concerned with the logic of social analysis and takes no position on conditions of continuity or change. Thus, it does not explicitly address how novel, emergent properties arise across populations of agents, and has been criticised for that (e.g. Hodgson, 2007). Since CAS's self-organisation is directly concerned with how systems adapt and how patterns emerge across populations of agents, it provides a more fitting theoretical focus for this study of organisational change.

8.2.2 Methods used

Chapter 4 outlined the methods adopted and the rationale for their selection. This section considers the strengths and weaknesses of those methods in use.

Case study strategy

Since self-organisation is a dynamic phenomenon without clear boundaries, I had to decide how to frame the research. One of the strengths of the case study strategy was that it provided boundaries for that research. Delineating the main unit of analysis (the organisation), and the time boundaries of the case provided focus. Case study method helpfully encourages researchers to make choices about the nature of the case up front. Within those boundaries, however, case study method can be flexible; a further strength when studying complex evolving systems.

Its flexibility allowed me to continue to refine the research questions as the situation within the case study organisation changed. I was therefore able to take advantage of the dynamic nature of the case to focus on change leader sensemaking in Phase 2. Had the research boundaries been fixed by the original research questions, rather than the case, this may not have been possible.

Case study also enables flexibility in terms of the techniques used, so I was able to add a short survey during Phase 1 enquiring into early emerging data.

The use of case studies within various disciplines and research paradigms and for various purposes means that there are many ways of reporting case study research. Although not strictly a limitation of the method, that poses some practical challenges. Yin (2009: 164) advises researchers to display “*enough evidence*” for readers to reach their own conclusions. Yet the lack of a ‘boilerplate’ (Pratt, 2009) for writing up qualitative case research means that there are no accepted ways of doing so and readers may, therefore, have differing expectations of what constitutes enough evidence and how that should be presented. While some authors primarily use descriptive passages (e.g. Stake, 2010: with his use of ‘patches’), others use tables extensively (e.g. Brown and Eisenhardt, 1997). I brought in the voices of research participants, and sought to make the case more alive for readers, with the liberal use of quotations in Chapters 5 and 6.

A further practical challenge is presenting enough evidence to be convincing to readers, while maintaining the anonymity of the case organisation and its change leaders. As research participants explained, the case focuses on a small organisation in a small profession where everyone knows everyone. The risk is that ‘insiders’ could identify the organisation and individual change leaders. Protecting the anonymity of the case organisation required more than attaching a pseudonym. It meant leaving out contextual information about the sector and the organisation which influenced my understanding of the case and might have helped readers reach their own conclusions.

Protecting the anonymity of the four change leaders was more difficult. Using (male) pseudonyms would not mask their identity from colleagues when the narrative sought to portray their character and quote their words (Snyder, 2002). I therefore had to self-censor and the resulting content perhaps lacks some of the richness and texture I had hoped to convey in writing convincing character stories for external examiners. The irony is that, while I have argued that we cannot separate phenomena from their social context, and selected case study partly for this reason, I have had to curtail the reporting of that contextual detail here in order to protect anonymity. It has not been easy trying to satisfy those twin goals and I hope that I have struck an appropriate balance. In so doing I am reminded of McGrath’s (1981: 179) description of the research process “*as a set of dilemmas that need to be ‘lived with’*”. Self-reported limitations, such as these, reflect those dilemmas (Brutus and Duniewicz, 2012).

Sampling

Cases are not selected to be representative of a population. As the rationale for selecting this case was discussed in Chapter 4, the appropriate question here is; was it a good one?

It was certainly a good case for studying organisational change. There was a history of first-order organisational change and the most active change leaders expected to pursue second-order organisational change during the research period, against what transpired to be a backdrop of third-order sector change. The upshot was an unexpectedly dynamic case. There was a lot of change in a short period and the nature of that change also changed. Its dynamic nature made it a good case for studying change leader sensemaking of emerging organisational patterns. In a less dynamic case, that particular focus may have been less relevant.

It was not such a good case for studying the management of organisational change programmes. Only the change to the CoreDegree curriculum, already well-underway at the start of Phase 1, was a recognised change programme which was actively managed. While change leaders indicated a broad direction for their particular change efforts at Phase 1, they tended not to articulate precise goals or formal plans for how they might bring about that change. Those who consider planned change in its more programmatic forms may, therefore, suggest that the case was light on planned change.

I disagree with that view, and suggest that what was going on in the case reflects the interplay of planned behaviour (although events were not always planned by those interviewed). It accords with my experience of organisational life, where formal change programmes only represent part of the picture. Of course I could have bounded the case differently to foreground the CoreDegree curriculum change (cf. McMillan and Carlisle, 2007: whose case was a change programme at the OU). From that perspective, the case might look quite different. We might notice a change programme succeeding against the odds, despite wider organisational and sector turbulence, and thus put more weight on the instrumentality of change leaders in the process.

Within the case, I used snowball sampling to identify change leaders. This worked well because change leaders were few in number and well-known by their colleagues. The change leader survey therefore confirmed the names already highlighted by research participants. In another context, however, it may usefully highlight cliques of change leaders, known to each other, but not to other groups in different parts of the organisation.

Interviews

The strength of a qualitative study is not judged on numbers of research participants, since it is not seeking to be representative, but in terms of the understanding it generates. Nonetheless a potential criticism of this study is the relatively small number of interviews (n=30) conducted.

Having the data from the change leader survey to triangulate with the snowball sample, however, I am convinced that I spoke with those who were particularly active in organisational change. That it was a small number simply reflects the size of the organisation and its hierarchical structure, where few were involved in change beyond their own area of responsibility.

I included some research participants who were not change leaders; two lecturers and two others who work closely with students. However I could have gone wider; perhaps talking to newer, or more junior members of staff, and seeking views from students, customers and other stakeholders. Arguably such voices are not well-represented in my study and could have brought different perspectives. However my purpose was not evaluation, where additional perspectives might build a fuller picture of emerging organisational change patterns. Nor was it emancipation, involving those affected by the change in reflecting on it (discussed further in 8.2.3). My purpose was exploring what emerging organisational patterns change leaders noticed and interpreted in language and the nature of their responses to those patterns. So, while going wider may have added contextual richness, it was not warranted by the research questions.

An alternative technique to interviews is diaries, which usefully capture the dynamic nature of experience over time of, and between, individuals (Ohly et al., 2010: 80). Diaries enable greater focus on real-time aspects of organisational change; for example tracking events and their sequence, along with other micro-level patterns concerning what change leaders notice, interpret and how they respond. Diaries are used as a primary data collection mechanism in other studies of sensemaking during change (e.g. Balogun and Johnson, 2005: who used fortnightly, then monthly diaries with preset questions).

However, I have three concerns about using diaries. The first is that a real-time, individual focus might not capture macro patterns which emerge over time. This could be mitigated by keeping the two interviews and using a diary study in between (Balogun and Johnson, 2005: adopted a similar strategy). My second concern is that diaries prompt participants (a) to reflect, and (b) to pay attention to specific areas identified by the researcher. Prompting change leader reflection on emerging organisational patterns may have facilitated their sensemaking and thus obscured the difficulties they faced. Similarly, focusing attention with regular preset questions may have obscured what change leaders were attuned to pay attention to over the period. In those ways,

using diaries could be likened to an experimental treatment, which was not my aim. However such a strategy could sit well with an action research orientation (as illustrated in Appendix H). Thirdly, the time involved in diary studies may make it harder to recruit research participants and there may be greater risks of attrition (Symon, 2004). Either eventuality here could have compromised study of the organisational case.

Social Network Analysis

Like the change leader survey, the SNA largely confirmed rather than revealed. It confirmed reliance on the formal hierarchy, rather than social networks, and it confirmed the important role of some people outside the TMT in connecting the networks during change. It also provided useful data for the reflect-back workshop with the TMT. The method had face validity with the group of 'technical' academics (mainly natural scientists) and was, perhaps, more convincing for them than qualitative data alone. While the results became less directly relevant as the research questions evolved, it provided another perspective on the context for change at Educase, enabling triangulation with qualitative data.

If I was to repeat the exercise, however, I would do two things differently. I would not limit the responses to five names per question as that curtails analysis of egocentric networks of individual change leaders. Also I would endeavour to brief potential respondents in person, addressing any questions and providing reassurance about how the data would be used and fed back, to enhance the response rate. Both changes would be more feasible with a smaller target group.

I had hoped to repeat this exercise at Phase 2, after the change of CE, to offer another perspective on 'changing patterns of relations'. However, with the changing conditions at Educase, I thought it ethically inappropriate; concerned it might add to people's anxiety and potentially fuel the "*rumour factory*" [I3.4]. Further, a low response rate would have been likely.

Data analysis

Chapter 4 has already considered the strengths and limitations of the analytic methods employed in its explanation of why and how multiple perspectives were used in making sense of case study data. Some scholars choose an analytic method e.g. grounded theory or discourse analysis, and use it as an anchor point for their research. My anchor point was the case, and the question, 'what is going on here which sheds light on my research questions?' Like Eisenhardt and Graebner (2007), this invited a process of "*recursive cycling*", here between emerging analyses from the analytic methods, to offer a multi-faceted perspective on that question.

Yin (2009) suggests that case study is a complete method and Eisenhardt (1989) calls it a research strategy. My experience echoes this. I suggest that case study is an *orientation* to research, whereby a case researcher uses multiple sources of data and may call upon multiple analytic methods to illuminate what is going on *in the case* (a case is a 'thing', a bounded entity, Stake, 2006), in relation to their research questions. Within that orientation, the case researcher is the instrument, a '*bricoleur*' (West, 2001; Kincheloe, 2005), who may use multiple methods of data collection and analysis as tools, weaving insights together to make sense of the case.

8.2.3 Methods not used

Limitations from a complexity perspective are not just inevitable shortcomings of study design or operation. They acknowledge that (as discussed in 4.2.2) any knowledge framework we choose is partial; so while it illuminates, it may also obscure. This section considers three alternative research strategies, which could be used instead of case study, to shed light on change leaders' sensemaking during organisational change: ethnography; action research; and complex responsive processes research. It also acknowledges the influences of all three on this study.

Ethnography

In organisation studies, ethnography has similarities with case study method; particularly where the unit of analysis is a single organisational case. Both are research strategies, not single methods; both use a variety of techniques, often triangulating methods, to collect data; and both study phenomena within natural settings (see Yin, 2009: on case study; and Brewer, 2004: on ethnography). Ethnography, however, is distinctive in its "*exploration of the social meanings of people in the setting by close involvement in the field*" (Brewer, 2004: 313).

Ethnography's 'insider' stance suits the study of change leader sensemaking (as used by Gioia and Chittipeddi, 1991). As an insider I could directly notice patterns and question others more informally about what they noticed and interpreted. Yet that closeness might also get in the way. My direct sensemaking might make it harder to study what sense change leaders make of emerging organisational patterns. While I acknowledge that the reported results reflect my sensemaking of others' sensemaking, they are largely based on interview data and thus rely on what interviewees notice and interpret in language.

Ethnography positions the researcher closer to the micro-processes of change and has been used in previous change studies (e.g. Tsoukas and Chia, 2002; Houchin and MacLean, 2005; Jian, 2011). However, it typically privileges the micro over the macro and "*often only incidentally addresses the organizational setting within which the work takes place*" (Brewer, 2004: 313). This is partly a feature

of methodology, rather than method. Ethnography's association with the ethnomethodological paradigm assumes an idealist ontology (Blaikie, 2007) where organisations have no reality beyond their symbolic meaning. Such a view is inconsistent with the complexity perspective adopted here. Nonetheless, post-postmodern versions of ethnography (Brewer, 2004) which take a subtle realist position (Hammersley, 1992), could be compatible with a complexity perspective.

Action research

Action research (AR) is associated with Kurt Lewin and the OD movement, and also the socio-technical systems work of the Tavistock Institute⁴². With its roots in gestalt psychology, AR is designed to bring about change at a group level using participative and collaborative processes which involve people in reflecting on and gaining new insights into their situation (Burnes, 2006: 140). While AR is an intervention strategy, associated with planned change, it is equally a research strategy. This is based on Lewin's premise, popularly articulated by Schein (1996: 64), that "*you cannot understand a system without trying to change it*". Research (diagnosis in consulting terms) is therefore achieved through intervention; it is not a separate phase which precedes it.

Like case study and ethnography, AR studies social phenomena in context and may utilise a range of data collection techniques. One feature that makes AR distinctive, however, is its emancipatory commitment. Research participants work on issues affecting them and aim to generate practical knowledge to use in their everyday lives (Reason and Bradbury, 2008). The AR process is typified by iterative cycles of action and reflection. In this study it could have been used by periodically prompting change leader reflection on emerging organisational change patterns through individual or group interviews (focus groups), diaries, or Large Group Interventions (LGIs)⁴³. AR has previously been used in studies of sensemaking during organisational change (e.g. Lüscher and Lewis, 2008).

However, using AR here may have facilitated change leader sensemaking and therefore obscured the difficulties they faced. More pertinently though, while AR reflects my professional work, seeking to change the system and help change leaders were not my goals for this study. The choice of case study in preference to AR was, largely, a personal preference to take the 'road less travelled' by me.

⁴² While Lewin is considered to have coined the term, similar approaches were used during 1940s-50s at both the National Training Laboratories at MIT and the Tavistock Institute in London

⁴³ Bartunek et al (2011) suggest that LGIs, while well-known to OD practitioners are unfamiliar to many organisational researchers. However they have recently been used in empirical studies (e.g. Worley et al, 2011)

Complex Responsive Processes research

Stacey and Griffin (2005) contend that researchers should take their experience seriously in their CRP-informed methodology for researching organisations. They suggest that research insights/findings “*must arise in the researcher’s reflection on the micro detail of his or her own experience of interaction with others*” (p9, original emphasis). That experience providing the substance for reflection comes (1) from the researcher’s own practice and (2) from the experience of “*participating in a community of researchers who are together exploring the meaning they are making of their experience*” (p10). The aim of that reflection is to achieve what the authors call “*detached involvement*” whereby the researcher is engaged in a paradoxically rational and emotional process.

Like ethnography, the CRP approach conflates both method and methodology. Knowledge is understood to emerge through social interaction and is judged in Pragmatic terms by its practical usefulness to those involved. Knowledge is also understood to evolve as general truths are particularised in specific situations.

Key features of this methodology are that it is reflexive, participative, exploratory and emergent. The authors see it as both a research strategy and a form of personal and group development which may transform those involved. In these ways, it seems to me that the CRP approach is a form of action research. While Stacey and Griffin admit that CRP approaches “*have many interests in common*” with AR (p28), they take pains to focus on the differences. These include AR’s focus on systems or wholes; its distinction between individual and social levels; its ideology about empowering people; and an action focus which emphasises activity. In all these aspects, CRP focuses on everyday interactions.

With its complexity perspective, a CRP approach might have seemed a natural choice for my research. However, my philosophical commitments and research goals differ. Stacey and Griffin eschew any realism that is more than the embodied experiences of people relating, while my study follows critical realists in considering that socially real emergent phenomena may have causal efficacy i.e. they affect behaviour. My research sought to understand more about the experience of change leaders at Educase, whereas CRP researchers reflect on the micro detail of their own experience of interaction.

Borrowing from other approaches

While I have not chosen to take an ethnographic, AR, or CRP approach here, I have lent on and learned from all three in enacting this case study research. My concern with understanding research participants’ context borrows from ethnography; as does my presentation of first- and second-order analyses. My iterative approach, revisiting the case in two Phases of research, and

reflecting back intermediate products of research, borrow from AR. My concern to take my own experience seriously, viewing the researcher as a research instrument, echoes the CRP approach.

8.2.4 Breadth and depth

A key challenge with this study has been achieving appropriate breadth and depth. The interdisciplinary nature of complexity research (Mitleton-Kelly, 2003) arguably invites breadth of thought. I have deliberately sought to cover a lot of ground with the literature reviewed here, as well as going into depth on complexity leadership. The literature review considers organisational change and complexity, both substantial and diverse fields in their own right (Eoyang, 2011). It draws on leadership, another large field, in relation to organisational change and complexity, and weaves in threads on sensemaking, planned behaviour and paradox. This breadth was necessary to locate and address the research questions. It also helped me develop the theoretical sensitivity required when taking an inductive approach (Glaser and Strauss, 1967) to apprehending and comprehending the case.

As discussed earlier in this chapter, delimiting the boundaries of the case provided empirical focus. Within that I sought to achieve depth in this study through a single, longitudinal, multi-level case which offered contextual richness. That contextual richness is important as change leaders and their organisations are embedded in context and, as Osborn et al (2002: 799) argue; *“one cannot separate the leader(s) from the context any more than one can separate a flavor from a food”*.

I recognise that other approaches would have been possible, such a narrower literature review, or a broader study of additional cases. However, I contend that this strategy offers appropriate breadth and depth for a doctoral research study.

8.3 Further research

The findings from this study suggest some interesting avenues for further research. Three are considered below.

8.3.1 Exploring patterns of emergent organisational change in other contexts

Theoretical replication studies could be conducted to ascertain whether the thematic domains of emergent organisational change identified at Educase ‘changing patterns of relations’ and ‘changing patterns of attention’ are evident in other organisational contexts and, if so, whether they manifest in similar or different ways. This would help to evaluate the proposals made in this

study that; (1) the basic and organising themes identified are highly contextual, and (2) that the global patterns (domains of emergent organisational change) may have transferability to other organisational contexts.

Further organisational cases may also identify additional domains of emergent organisational change. If they fit within the framework of affective, cognitive and behavioural domains of emergent organisational change presented in this thesis, it will provide support for that initial typology and help to populate the framework. If not, they may suggest useful modifications to the typology which furthers understanding of domains of emergent organisational change.

Studies may also be designed to explore patterns of emergent organisational change at other levels of scale. Within an organisation, for example, we might want to explore change leaders' perceptions of emerging patterns within their subunit (e.g. department/business unit) and the wider organisation. This would allow a comparative study between patterns emerging across different subunits, and a multi-level comparison between subunit and organisational patterns. It would enable us to explore similarities/differences between the type of patterns found and the way they manifest in different areas and at differing levels of scale. With sufficient resource, a similar comparative study could be designed within an organisational collective/industrial sector. Such studies could help to further understanding about domains of emergent change at multiple levels of scale.

8.3.2 Using patterns of emergent organisational change

The typology and the domains of emergent organisational change could also be used in Mode 2 research ("which is co-produced with practitioners in a rigorous yet actionable way", Burgoyne and James, 2006: 304), through action research studies with change leaders. Such studies might use cycles of action and reflection to explore how the domains and typology help change leaders to anticipate, notice, interpret and respond to emerging patterns and transitory outcomes as they pursue change in their own organisations.

As well as adding to the body of knowledge about change leader sensemaking during organisational change, this line of research may also lend itself to the development of practical methods which help change leaders make sense of emerging organisational patterns in their own context. There are already some foundations to build on here:

Large Group Interventions which seek to involve the 'whole system' in change (Bartunek et al., 2011) provide insights into bringing together and facilitating large,

mixed groups in ways which encourage participation and creativity. However, the focus of methods such as Appreciative Inquiry (Cooperrider and Srivastva, 1987) and Future Search (Weisbord and Janoff, 2000), is on participative, planned change. Emergent aspects are largely overlooked.

Snowden's Cynefin framework (Snowden and Boone, 2007) which encourage leaders to 'probe, sense, and respond' to emerging patterns in complex contexts does focus on emergent aspects of change. However, it is unclear how this approach may be practically applied without the supporting proprietary software.

Visual metaphors have proved helpful in capturing "*both the analogous and the anomalous*"; thereby concisely conveying paradoxical complexity (McKenzie and van Winkelen, 2011: 138). Therefore it could be useful to explore the use of visual metaphors in helping change leaders to conceive and express emerging organisational patterns within an AR context.

8.3.3 Asking why those organisational change patterns emerged

Having identified patterns of emergent organisational change, a logical next question would be; why did those particular patterns emerge? That question lends itself to a critical realist (CR) retroductive study which aims to generate plausible theories about generative mechanisms which might account for observed regularities (Blaikie, 2007). Since the way I have interpreted the philosophical commitments of a complexity perspective in this thesis has a close correspondence with CR (cf. Harvey, 2009; Byrne, 2009), this could offer a fruitful way of continuing to explore complex behaviour in human systems.

Pawson and Tilley (1997: 216-7) explain that "*mechanisms refer to the choices and capacities which lead to regular patterns of social behaviour*". A mechanism may or may not be fired in different contexts, they suggest, depending on the choice-making behaviour of individuals, which is "*subject to social constraint and is always limited by the power and resources of their 'stakeholding'*" (ibid). Such a view of social interaction fits well with the notion of self-organisation. Whereas CAS offers an explanation of *how* complex behaviour arises, CR asks *why* particular outcomes patterns occur⁴⁴. Moreover, CR endeavours to theorise about and name mechanisms, which can only be empirically identified in terms of their effects, which might account for particular outcome patterns in particular contexts. Pawson and Tilley (ibid.) express that relationship as CONTEXT

⁴⁴ Reasons for this differing orientation might lie in their roots. CAS was developed in the natural sciences where it would be absurd to look for social mechanisms relating to the behaviour of cellular automata or grains of sand; whereas CR, as a philosophy of science, considers the knowing of human agents.

+ MECHANISM = OUTCOME (C+M=O). Their (critical) realistic evaluation seeks to develop multiple CMO configurations in order to consider what works, for whom, in what circumstances.

During my research I gathered data about context and organisational actors as well as data about outcome patterns. This might make it possible to conduct a retroductive analysis on existing case data (cf. Kempster and Parry, 2011: who used CR to critique their earlier grounded theory studies in leadership). What might make it a particularly interesting case to revisit are the striking differences in context and outcome noted at Phases 1 and 2. For example, case data indicated a potential mechanism relating to competitive behaviour; observed in both the profession and the HE sector. At Phase 1, within the context of available external funding (C), competitive behaviour could be a plausible mechanism (M) in the observed outcome pattern of 'growth and development' (O). At Phase 2, however, with external funding much harder to obtain and an internal focus on resources (C), competitive behaviour (M), could plausibly have caused the internal fragmentation observed in the outcome pattern 'changing patterns of relations' (O). Further analysis could develop these initial ideas and highlight other CMO configurations. These could be developed through further theoretical sampling of cases (see 8.3.1), or brought into an AR frame (see 8.3.2) by way of a teacher-learner relationship (Pawson and Tilley, 1997).

Since conducting a retroductive study on the existing data would mean asking different research questions, this is an area for further research, rather than an extension of the analysis conducted.

8.4 Researcher reflections

8.4.1 Bringing myself to the research

If we accept, as I do, Stake's (2010) contention that the researcher is an instrument, then my experience brings something to the research. My professional experience, in particular, influenced the methods I chose, how I used them and the data that I noticed.

As an OD practitioner, I work with individuals and groups (small and large) in the development of organisations. I have therefore developed practical know-how in building rapport, asking questions and facilitation, which I brought to the interviews and the reflect-back workshop. My familiarity with these methods gave me confidence that I could use them effectively and that they would be appropriate data collection vehicles to illuminate the research questions.

OD practitioners work as 'process consultants' rather than 'expert' consultants (Schein, 1995); differentiating them from many management consultants. My work involves listening and

observing well; paying attention to the process of conversations and interactions. That means noticing group dynamics; power dynamics; psychological projection; and 'defensive routines' (Argyris, 1985). It also means paying attention to parallel processes about how I am thinking and feeling, and asking what clues they might offer as to what is going on.

My empirical observations, captured in the form of field notes, include some process observations. For example, at the end of one interview, I felt sad. It was not a difficult interview, nor was I sad on my own account. My sadness was an empathic response, arising from being in rapport with the interviewee. In my field notes, I wrote; "*strong sense of sadness and weariness (I felt sad too at the end)*". Another example is the basic theme 'individual isolation' within the thematic network 'changing patterns of relations'. There were relatively few direct quotations about isolation, but there were clues. One person tentatively admitted at the end of his interview that he had not felt helped by his colleagues. This struck me as interesting. When reviewing the transcript, I noticed he had spent most of the time relating events where he was a lone voice or in a minority. From a weak signal, I found that isolation ran through the whole interview.

OD emphasises diagnostic as well as 'people work'. The OD field is replete with diagnostic models, such as force field analysis (Lewin, 1947b) and the Burke-Litwin model (Burke and Litwin, 1992), oriented to discovering how organisations work and understanding what is going on. Further, the OD practitioner is an instrument in OD (Cheung-Judge, 2001). I am therefore used to working with and making sense of organisational data; bringing together disparate threads, throwing new light on things, detecting and making sense of patterns, finding ways to communicate and check what I have found with organisational actors.

This experience (eventually) gave me the confidence to embrace the notion of researcher as instrument, using a combination of analytic methods to address the research questions. Yet, this was not a decision I took lightly. I spent a long while looking for a single analytic method that I could employ and felt frustrated that each only went 'so far' in illuminating the case. It was only when I realised the fuller implications of taking a case study orientation i.e. the need to utilise various tools to illuminate the case (described earlier), that I accepted the role of researcher as instrument.

That was not the only challenge I faced...

8.4.2 Overcoming challenges, jumping hurdles

Getting to the research question

My original research question asks how change leaders pursue enhanced organisational effectiveness in self-organising systems: what works, for whom, and in what circumstances? I planned to explore how purposeful actors who have some intention and direction for organisational change expected to pursue their agendas (Phase 1), comparing that with what they report happened (Phase 2). I expected to consider both planned and emergent dynamics within organisational change and to highlight agentic behaviours which affected those dynamics.

Having completed Phase 1 data collection with that in mind, however, I found that the degree of sector change, combined with the unexpected resignation of the CE, pushed the organisation far-from-equilibrium. In response, several change leaders simply stopped pursuing their agendas for change. This made the original research question less relevant.

As I began analysing Phase 1 data I also realised how difficult it is to address such a broad question using a complexity lens since everything might potentially be important. While it is not practical (nor possible) to track everything (Campbell-Hunt, 2007), it is difficult to draw an appropriate line. Non-linearity means that the major significance of small events may not be immediately evident if multiple feedback loops distance cause and effect. In responding to those twin challenges, I refocused and refined my research questions to make the most of the opportunities presented by the dynamics of the case.

Getting to the philosophical lens

Before embarking on the DBA process, I underestimated the amount of philosophy involved. Had I felt comfortable wearing the coat⁴⁵ of an established paradigm, this may have posed less of a challenge. Positivist and empiricist coats did not suit me and, while the social constructionist and pragmatist coats fitted reasonably well, neither was quite right. I could accept the socially-constructed nature of our *understanding* of social reality, but not the socially-constructed nature of social reality itself. I liked the notion of developing practical theories by studying practice, but felt unsatisfied sidestepping questions about the nature of social reality, which I felt also served to deny its existence over and above the knowing process. I borrowed the coat of critical realism for a while and still try it on every now and then. What I find useful is CR's insistence that social phenomena can be considered socially real if they have causal efficacy (Fleetwood, 2005); which I have used in this thesis because I find it more clearly stated than in the complexity literature. I also like CR's concern with developing theoretical understanding of *why* things work (a potential avenue for further research).

⁴⁵ The metaphor is of philosophical commitments in qualitative research being like a coat or one's skin

As none of the coats fitted well enough, it took me longer to get to my philosophical lens than expected. It was only when I returned to complexity and began to set out my philosophical position from there (see Chapter 4) that I metaphorically found my philosophical skin.

Getting underneath the data

Case studies typically generate lots of data (Yin, 2009) and mine was no exception. I ended up with an enormous lever arch file, full of double-sided documents (interview transcripts, field notes, archival documents), plus many additional reports about the case organisation and its sector online.

Undoubtedly CAQDAS (Computer Aided Qualitative Data Analysis Software) technology assists with data management; I used Atlas.ti 6.2. I used it at the outset for a content analysis, where I read through and attached codes to sections of text (quotations) to highlight what people were talking about in interviews and key reports. As the software highlights numbers of quotations per code, I easily saw how much talk there was, for example, about funding issues at Phases 1 and 2; not obvious without the software. The software was also useful for interrogating the data, so when someone talked about rumours, I easily searched the whole database (Word documents and pdfs) for other instances. Without CAQDAS software, you would have to search each document separately. I found it invaluable too for data retrieval. It usefully summarised quotations per code, and its search function made it easy to locate and check the context of specific quotes used to illustrate key points when writing-up.

Despite the usefulness of CAQDAS for data management, I felt the software obscured, rather than helped to highlight, emerging organisational patterns in the case data. Firstly, it invites you label things before you know what those things really are. This is a particular issue when patterns are emerging, as themes are not necessarily clear or distinct. Secondly, it highlights the weight of content in numerical terms ('groundedness' in Atlas.ti), rather than the weight of meaning. This makes it harder to notice weaker signals. Thirdly, it shows data in fragments (on screen/in print) and only when you request it. When patterns are indistinct, I found it preferable to display the key data holistically. As Chapter 4 outlines, I used lots of post-its on a large whiteboard and an iterative process of clustering to develop the themes in the thematic networks. This approach enabled me to easily refer to my data; to zoom into and stand back from it; to re-work emerging themes and connections into categories without necessarily labelling them up front; and just notice what was there from a different angle.

I would use CAQDAS again; indeed I would not want to undertake a large, qualitative study without it. However I would be more aware of its practical limitations when it comes to noticing and interpreting emerging macro-level patterns across a dataset.

8.4.3 Becoming a scholar as well as a practitioner

During my doctoral journey I sometimes felt like a traveller in foreign lands. As I explored, I discovered differences between lay terms and scholarly terminology. I found different academic tribes with different dialects. Sometimes those tribes used different terms for the same things and, much worse, the same terms for different things (e.g. emergence). So, while unfamiliar language has been confusing, familiar language has often betrayed. Like an anthropologist, I have embedded myself within the academic world in order to learn the, often unspoken, rules of engagement and develop know-how to help me be an effective scholar. Unlike the anthropologist, however, I am seeking acceptance into that academic community at the end of my DBA journey.

During my travels I realised that research questions often produce ‘answers’ which beg more questions. Any time we reveal something new, it simultaneously highlights how much more there is to know. Yet, while the research process opens up the ‘space of possibilities’ (Kauffman, 1993), as researchers, we need to narrow it down and specify what we will research, why and how. We even need to specify what criteria should be used in judging the quality of our research by nailing our philosophical colours to the mast.

Thus I have learned that making choices is central to academic research. I have learned that research rigour requires researchers to reflect on and be explicit about the choices they are making; to recognise the limitations of those choices; and be aware of alternatives. It also requires researchers to engage in a form of social reflexivity (Stacey and Griffin, 2005) by locating those choices within wider traditions of thought in the philosophy of science.

Becoming a scholar has also influenced my practice. I am more thoughtful about why and how particular interventions work. I try to understand where particular frameworks come from and the paradigmatic assumptions which underpin them. Becoming more aware of my own philosophical and theoretical frameworks has helped me to make more conscious choices. It has also enabled me to help clients think more critically.

This doctoral process has sometimes been bewildering, but it has also been rewarding. It has helped me to develop my craft (the doing of academic management research) and myself; transforming me from someone who does research, to someone who *is* a researcher. So, while my doctoral journey is nearing its end, I am keen to continue the lifelong process of refining my instrumentality as a scholar as well as a practitioner.

8.5 Concluding remarks

Chapter 1 opened with Warner Burke's rallying cry that "*the need for expertise in organization change has never been greater*" (Burke, 2011: 143). Responding to that call to action, my research took a complexity perspective on organisational changing and then asked how change leaders make sense of emerging patterns in self-organising change.

The results of that exploration have furthered understanding of change leadership in self-organising change in four main ways:

- (i) Developing a theoretical framework of self-organising change has clarified the co-evolving relationship between planned and emergent change.
- (ii) The empirical case has highlighted the challenges facing change leaders in making sense of emerging patterns in self-organising change.
- (iii) Identifying three domains of emergent organisational change has helped to clarify what changes in emergent organisational change.
- (iv) Developing a multi-level typology of domains of emergent organisational change has offered a tool to help OD scholars and practitioners to theoretically anticipate and make sense of emerging organisational patterns.

With those insights, I propose we have taken some steps forwards in addressing OD's "*unfinished business*" in organisational change (Burke, 2011).

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Appendices

Appendix A: Orders of change and learning

Appendix B: Interview protocols

Appendix C: Research participation consent form

Appendix D: Informal networks survey

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Appendix J: Change leader narratives (for examiners only)

Appendix A: Orders of change and learning

Reference	First-order		Second-order		Third-order
(Watzlawick et al., 1974; in Van De Ven and Poole, 1995: 522-3)	“change within an existing framework that produces variations on a theme ... over the longer term, small changes may cumulate to produce a larger change in degree or quality of the entity”		“a break with the past basic assumption or framework ... it can produce highly novel features; the outcome is unpredictable because it is discontinuous with the past”		
(Levy, 1986: 11)	“change that does not alter the world view... change within the old state of being (thinking and acting)”		“change that results in a new world view, new paradigm ... new state of being”		
(Golembiewski et al., 1976: 134-5)	Alpha change: “variation in the level of some existential state” with constant instruments and conceptual domains	Beta change: alpha change complicated by recalibration of some intervals of measurement associated with a constant conceptual domain	Gamma change: “a major change in the perspective or frame of reference within which phenomena are perceived and classified, in what is taken to be some relevant slice of reality”		
(Porras and Silvers, 1991: 57)	Alpha change: change in perceived levels of variables within a paradigm without altering their configuration	Beta change: change in people’s view about the meaning/value of any variable within an existing paradigm without altering their configuration	Gamma(A) change: change in configuration of existing paradigm without addition of new variables	Gamma(B) change: replacement of one paradigm with another that contains some/all new variables	
(Bartunek and Moch, 1987: 486)	“tacit reinforcement of present understandings”		“conscious modification of present schemata in a particular direction”		“Training of organizational members to be aware of their present schemata and thereby more able to change these schemata”
(Tsoukas and Papoulias, 2005: 81)	Focus of organisational change is policies and strategies		“paradigmatic change ... [which] alters fundamental organizational governing values”		“transformation of the very identity of the organization ... [and] involves important shifts in the structure of the broader institutional context ”
(Argyris and Schön, 1978)	Single loop learning: error detection/correction that does not question/alter the underlying system		Double loop learning: error detection/correction that considers and alters governing variables		
(Nielsen, 1993)	Changes actions		Changes governing values		Triple loop learning: changes the embedded social tradition system
(Bateson, 1972/2000; in Tosey and Mathison, 2008: 19)	Learning I “change in specificity of response by correction of errors of choice within a set of alternatives”		Learning II “change in the process of Learning I, e.g., a corrective change in the set of alternatives from which choice is made”		Learning III “change in the process of Learning II, e.g., a corrective change in the system of sets of alternatives from which choice is made”

Appendix B: Interview protocols

Phase 1

1 ABOUT THE HOPED FOR CHANGE

This section explores participant views about the hoped for change:

- 1.1 What's the nature of the change that you're hoping to see at Educase over the next year or so?
- 1.2 What's driving that change?
- 1.3 What's important to you personally about that change?

2 ABOUT THE PROCESS FOR CHANGE

This section explores expectations of the change process, including the anticipated personal role of the participant:

- 2.1 How do you personally anticipate getting involved in bringing about this change?
- 2.2 What won't you do? [if appropriate]
- 2.3 What are your hopes and fears for the change process?

3 ABOUT THE EVALUATION OF CHANGE

This section explores how participants expect to evaluate success:

- 3.1 How will you know if you've been successful?
 - probe on *change process* as well as *outcomes*
- 3.2 What measures, if any, do you have in mind?
 - probe for informal/intuitive, as well as any formal measures

4 Who else do you think that should I be speaking to?

- formal change leaders
- informal change leaders

Appendix B: Interview protocols (continued)

Phase 2

PART 1: ORGANISATIONAL CHANGE AT EDUCASE (Organisational story)

Explores participants' perceptions of what's changed about Educase

1.	In general, what's changed about Educase over the last year? [List examples]	Notice
	- Acknowledge with nod/'uh-huh' but no prompt	(attuned)
2.	Have you noticed anything else that's changing about Educase?	Notice
	[List examples] If so, what have you noticed?	(prompted)
3.	How is it different now?	Notice
	[Qualitative observations]	Interpret
4.	In your opinion, what have been the most significant changes? And why?	Interpret

PART 2: EXPERIENCES OF CHANGE LEADERS (Character stories)

Explores the experiences of participants as they've pursued organisational change

5.	Can you briefly tell me about any change that you've personally been involved in driving or influencing across Educase over the last year?	Context of story
	a. <u>What</u> have you tried to do?	
	b. <u>Why</u> was that a priority for you? [What was the situation?]	
	c. <u>How</u> have you done so?	
	d. With what <u>results</u> ?	
6.	In general, what has all the institutional change that we talked about earlier meant for you as you've pursued your own priorities for change?	Interpret Respond
7.	More specifically, has it shaped or affected the following... and if so, how?	
	a. <u>What</u> you've tried to do? [The priorities themselves]	
	b. <u>How</u> you've approached it? [Activity or strategies used]	Respond
	c. <u>What</u> you've achieved? [Expected vs actual outcomes]	Respond
8.	Finally, what impact, if any, has the institutional change had on <u>you personally</u> ?	Interpret Respond

PART 3: LOOKING FORWARD (For further research)

9.	How do you think Educase needs to change over the next year ?
10.	How do you see your role in that?

Appendix C: Research participation consent form

I agree voluntarily to take part in the research project on organisational change being conducted by Sharon Varney as part of the requirements for her doctoral degree at Henley Business School at the University of Reading and confirm the following:

- ☐ I have read the participants' information sheet and understand the nature of the research and my participation within it. Any questions which I have asked have been answered to my satisfaction.
- ☐ I understand that the information that I will supply is confidential and that it will be anonymised.
- ☐ I understand that I do not have to answer all the questions which may be put to me.
- ☐ I understand that I am entitled to ask for a de-briefing session or a copy of the research at the end of the project.
- ☐ I understand that the information which I provide will be held securely until the research has been published, after which it will be destroyed. The information which I provide will not be used for any purpose other than in connection with this research.
- ☐ I understand that I may contact the researcher directly if I have questions or concerns about my continued participation in this research.
[Phone number] [Email address]
- ☐ I understand that I may withdraw from this study at any time. In case of withdrawal I will agree with the researcher how any information I have supplied will be used. I may ask for this information and any records relating to my contribution to be destroyed.
- ☐ I consent for the interview to be recorded (*please tick, as appropriate*)

YES ☐ NO ☐

and understand that I may ask for the recording device to be switched off at any time during the interview.

Your name:
(Please print)

Researcher: Sharon Varney

Signature:

Signature:

Date:

Date:

Appendix D: Informal networks survey

Introduction

As part of my doctoral research at Henley Business School I am researching organisational change at Educase. This short questionnaire seeks to understand more about the informal networks at work in the organisational change process. There are 10 questions and the survey should take around 5 minutes to complete.

- Questions 1-5 ask about your informal networks. Your responses will be combined with others to develop social network diagrams.
- Questions 6-8 ask about who is actively involved in organisational change at Educase.
- Questions 9-10 ask about you. We need your name to plot the networks – so please remember to include it.

Please complete the survey by Friday 2nd July. If you have any questions, please contact me:

- [Phone number] [Email address]

Please note that, while the survey results themselves will remain confidential, the overall network diagrams may be shared with people at Educase as part of the research process.

Many thanks for your time and for your contribution to this research.

Sharon Varney
Research Associate
Henley Business School

Communication at Educase

1. Who do you go to in order to find out what's going on around Educase?
[Please list up to 5 people and indicate FIRSTNAME SURNAME for each]

i _____
ii _____
iii _____
iv _____
v _____

Change at Educase

For each question below, please list up to 5 people and indicate FIRSTNAME SURNAME for each. If you decide to name someone against more than one question, you may wish to use initials for any subsequent responses

When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...

2. ...help you to develop and shape the idea?

i _____
ii _____
iii _____
iv _____
v _____

3. **...influence others to support your idea?**
(Open text fields i-v)
4. **...influence the Top Management Team to support your idea?**
(Open text fields i-v)
5. **...ensure that your idea gets put into action?**
(Open text fields i-v)

People actively involved in change

In your experience...

6. ...who generates significant ideas for change at Educase?

[Please list up to 5 people. You may include your own name, if appropriate]

- i _____
- ii _____
- iii _____
- iv _____
- v _____

7. ...who plays a key role in shaping the agenda for change at Educase?

- i _____
- ii _____
- iii _____
- iv _____
- v _____

8. ...who needs to say 'yes' for change to happen at Educase?

- i _____
- ii _____
- iii _____
- iv _____
- v _____

Your information

Reminder – your name is needed in order to plot the networks

9. Please give your name

Your name: _____

10. Please tell us about yourself

Your department: _____

Length of time at Educase (years): _____

Thank you

Thank you for completing this short questionnaire

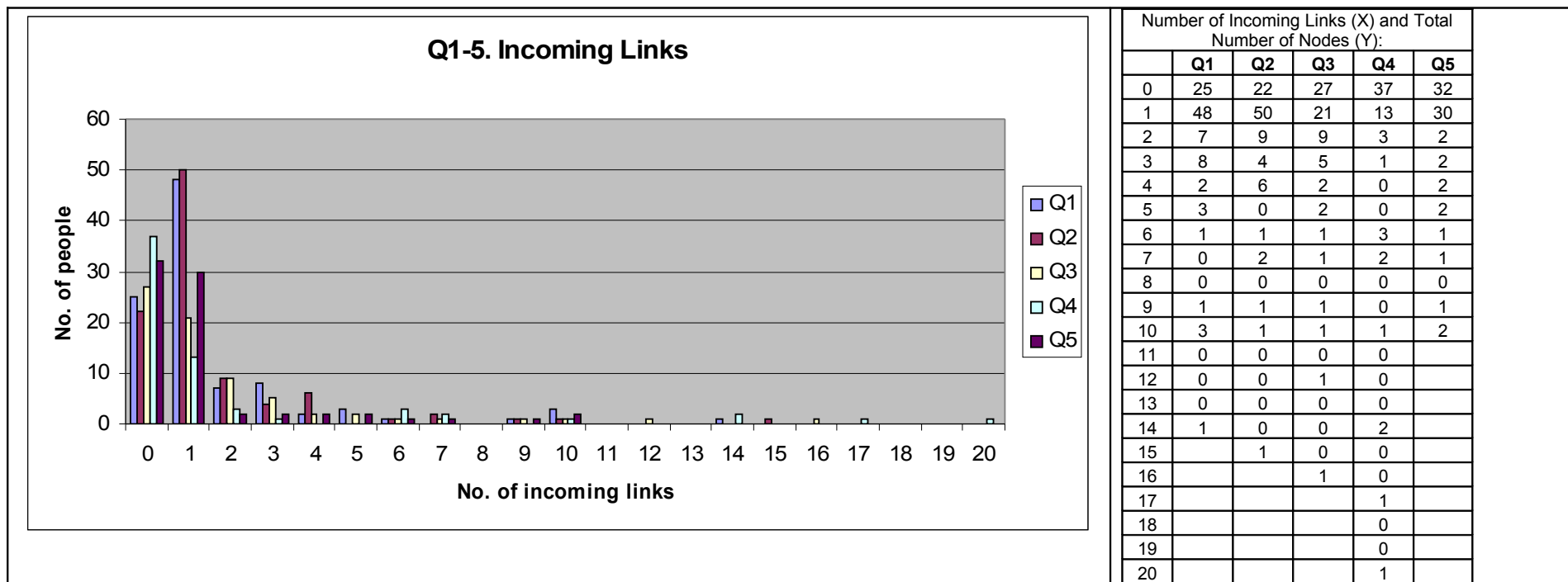
Appendix E: SNA – extracts from Q1

The following illustrates output from the Organizational Forms Simulator used in analysing social networks data. Since the data for each of the 5 survey questions extends over several pages, it has been truncated:

99 Nodes, 168 Links	Clustering Coef $sp=0.331086$
Histogram - Number of Incoming Links (X) and Total Number of Nodes (Y):	Average DOS=2.27 (total=1434 cnt=633)
0:25	Most Utilised Nodes (truncated list.):
1:48	S10:205
2:7	S13:201
3:8	S04:177
4:2	AT06:91
5:3	CT18:56
6:1	AT04:52
7:0	BT05:39
8:0	PT10:36
9:1	S11:36
10:3	S09:36
11:0	CT22:36
12:0	S01:36
13:0	S12:36
14:1	S03:35
Most Consulted Nodes (truncated list):	S05:35
S04:14	S07:34
S12:10	DT08:34
S13:10	AT02:33
S03:10	CT13:19
S10:9	CT33:15
S05:6	AT08:14
S11:5	BT17:12
S09:5	DU02:12
AT06:5	CT28:12
S07:4	S06:12
S01:4	OU14:12
DT10:4	CT10:8
CT22:4	AT03:8
CT05:4	AU05:7
OT05:3	OT05:7
CU15:3	CU15:5
S06:3	CU14:4
PT10:3	BT08:4

Appendix F: SNA – results

(i) Shape of the data: The histogram of incoming connections (i.e. those named by respondents) follows a power-law distribution with a long tail to the right (power law tails do not decay as quickly as normal distributions). Power laws indicate that small instances of a phenomenon are common, whereas large instances are rare. For example, in Q1, 48 people were named once and one person was named 14 times. Thus 48 nodes on the Q1 network have one incoming link, whereas one densely connected node has 14 incoming connections. Power-law distributions are often found in social networks (e.g. Barabási, 2002). They are a common property of many large networks because “*new vertices attach preferentially to sites that are already well connected*” (Barabási and Albert, 1999: 509).



(ii) Most consulted/utilised nodes

The table overleaf presents data on the **‘most consulted nodes’** i.e. those nodes which have the most incoming links (those with 2 or more connections are shown). These nodes represent the people named most frequently in response to a particular question.

The table also presents data on the **‘most utilised nodes’** i.e. those nodes which connect most people in the network. For example where Node A and Node B do not have a direct link, they may need to go through Node C in order to connect. This data is calculated as a connection score by the data analysis software; higher connection scores indicate more heavily utilised nodes (those with connection scores of 10 or more are shown).

Names have been replaced with a unique alphanumeric code for anonymity. Letters A/B/C/D/O/P signify a person’s department at Educase, followed by their level in the hierarchy. Hierarchy codes are T (for the top 100) and U (for those below). The single letter S denotes senior managers who are members of the TMT; no department codes are given as it would compromise anonymity. Thus node S04 is a member of the TMT and node AT06 works in department A and is a member of the top 100 at Educase. In the table, the S-prefixed nodes representing TMT members are highlighted.

Taking the top 10 most consulted nodes across all five questions yielded 12 unique nodes. Ten of those are members of the TMT.

Taking the top 10 most utilised nodes across all five questions yielded 19 unique nodes. Seven are members of the TMT; the remaining 12 are in the top 100.

Most consulted/utilised nodes

Q1 Most consulted nodes			Q1 Most utilised nodes		Q2 Most consulted nodes		Q2 Most utilised nodes		Q3 Most consulted nodes		Q3 Most utilised nodes		Q4 Most consulted nodes	
Node	No. links in		Node	Score	Node	No. links in	Node	Score	Node	No. links in	Node	Score	Node	No. links in
1 S04	14		S10	205	S04	15	AT04	335	S04	16	S04	283	S04	16
2 S12	10		S13	201	S13	10	S13	312	S03	12	S13	214	S03	12
3 S13	10		S04	177	S12	9	S04	250	S13	10	S10	205	S13	10
4 S03	10		AT06	91	S10	7	S10	240	S12	9	AT04	152	S12	9
5 S10	9		CT18	56	S03	7	AT06	228	S10	7	BT02	126	S10	7
6 S05	6		AT04	52	AT04	6	AT01	216	AT04	6	CT18	111	AT04	6
7 S11	5		BT05	39	S11	4	CT22	193	S11	5	CT08	91	S11	5
8 S09	5		PT10	36	AT06	4	S06	126	S09	5	CT22	68	S09	5
9 AT06	5		S11	36	S06	4	CT20	126	AT06	4	BT05	62	AT06	4
10 S07	4		S09	36	S05	4	AT03	88	S05	4	CT13	39	S05	4
S01	4		CT22	36	S07	4	PT10	65	CT01	3	S09	37	CT01	3
OT05	3		S01	36	S09	4	BT05	59	S06	3	S12	36	S06	3
CU15	3		S12	36	CT03	3	CT03	35	S01	3	S03	36	S01	3
S06	3		S03	35	PT10	3	CT14	35	S07	3	S06	35	S07	3
PT10	3		S05	35	AT01	3	S12	34	CT14	3	CT34	35	CT14	3
CT22	3		S07	34	CT14	3	BT08	34	CT13	2	S05	35	CT13	2
AU11	3		DT08	34	BT05	2	S11	34	CT18	2	S11	35	CT18	2
BT05	3		AT02	33	BT08	2	S01	34	CT10	2	AT01	35	CT10	2
AT04	3		CT13	19	CT13	2	S09	34	BT01	2	AT02	20	BT01	2
CT13	2		CT33	15	CT22	2	CT31	33	BT17	2	CT28	20	BT17	2
CT18	2		AT08	14	CT01	2	CT01	33	BT05	2	PT10	19	BT05	2
BT01	2		BT17	12	DT08	2	AT05	33	AT01	2	AT06	18	AT01	2
DT08	2		DU02	12	AT03	2	CU22	33	S08	2	CT27	16	S08	2
BT10	2		CT28	12	AT05	2	DT08	33	CT03	2			CT03	2
AT02	2		S06	12	S01	2	AU07	33						
AT05	2		OU14	12			AU09	33						
							AU14	33						
							CT08	27						
							CT13	23						
							CT28	16						
							S03	13						

Note:

'Most consulted' no. links in ≥ 2

'Most utilised' score ≥ 10

Shading denotes TMT members

(iii) Network characteristics

A social network is a collection of people, each of whom has some relationship with a subset of the others (Newman, 2001). Social networks are considered to be “small-world” networks (Milgram, 1967). Milgram’s small world phenomenon suggests that “most pairs of people in a population can be connected by only a short chain of intermediate acquaintances, even when the size of the population is very large” (Newman, 2001: 404) and is popularly referred to as six degrees of separation (e.g. Watts and Strogatz, 1998).

Key macro-level characteristics of social networks relate to connectivity, clustering and cliques:

Connectivity is indicated by degrees of separation (DoS). The average DoS calculates the average number of intermediaries required to connect any two nodes on the network. The table below shows that average DoS range from 1.95-3.18. This confirms that they are ‘small world’ networks, as expected, where there are very short chains.

Clustering tells us about local communities in a network, where a higher than average number of people have a relationship; common in social networks. This is expressed by a clustering coefficient (C) (Watts and Strogatz, 1998) which measures triangles, a trio of people where each is connected to the other two (Newman, 2001). $C=1$ for a fully connected network and approaches 0 for a random network. The table below shows that C ranges from 0.15-0.33, which indicates that the social networks are not highly clustered. This suggests high reliance on a few central nodes, rather than strong relationships across the whole network.

Cliques identify groups of people who are connected to each other, but not to other parts of the network (Luce and Perry, 1949). While there were some pairs of people connected to each other, but not to other parts of the network, there were no cliques of 3 or more within the five social networks.

	Q1	Q2	Q3	Q4	Q5
Clustering Coefficient	0.33	0.37	0.28	0.15	0.25
Average Degrees of Separation (DoS)	2.27	3.18	2.87	1.95	1.99

Note: Average DoS, clustering co-efficient and cliques calculated by the SNA software.

(iv) Social network diagrams

One of the benefits of SNA packages is their visual display of network data.

Q3: Influencing for change

The network for Q3 is shown overleaf. It illustrates the social networks respondents used in influencing others to support an idea for change. Like many other social networks, the Q3 network features a core/periphery structure (Borgatti and Everett, 2000). Here nodes S13 and S04 sit within a dominant central core (there may be more than one single core within such a network), while nodes BT23 and OT02 sit on the periphery of the network. With the exception of the DT05→DT02 link, what this shows is one network that is not divided into subgroups, although it illustrates that some people are better connected than others within the network. Another striking feature of the visual is the low number of reciprocal connections; although this might increase with a higher completion rate (e.g. S12 did not complete the survey), or with longer lists of ties.

Key: Nodes (representing people) are coloured-coded by the density of incoming links:

Red	≥ 8 incoming links	Green	3
Blue	7	Yellow	2
Magenta	6	Cyan	1
Orange	5	Grey	0

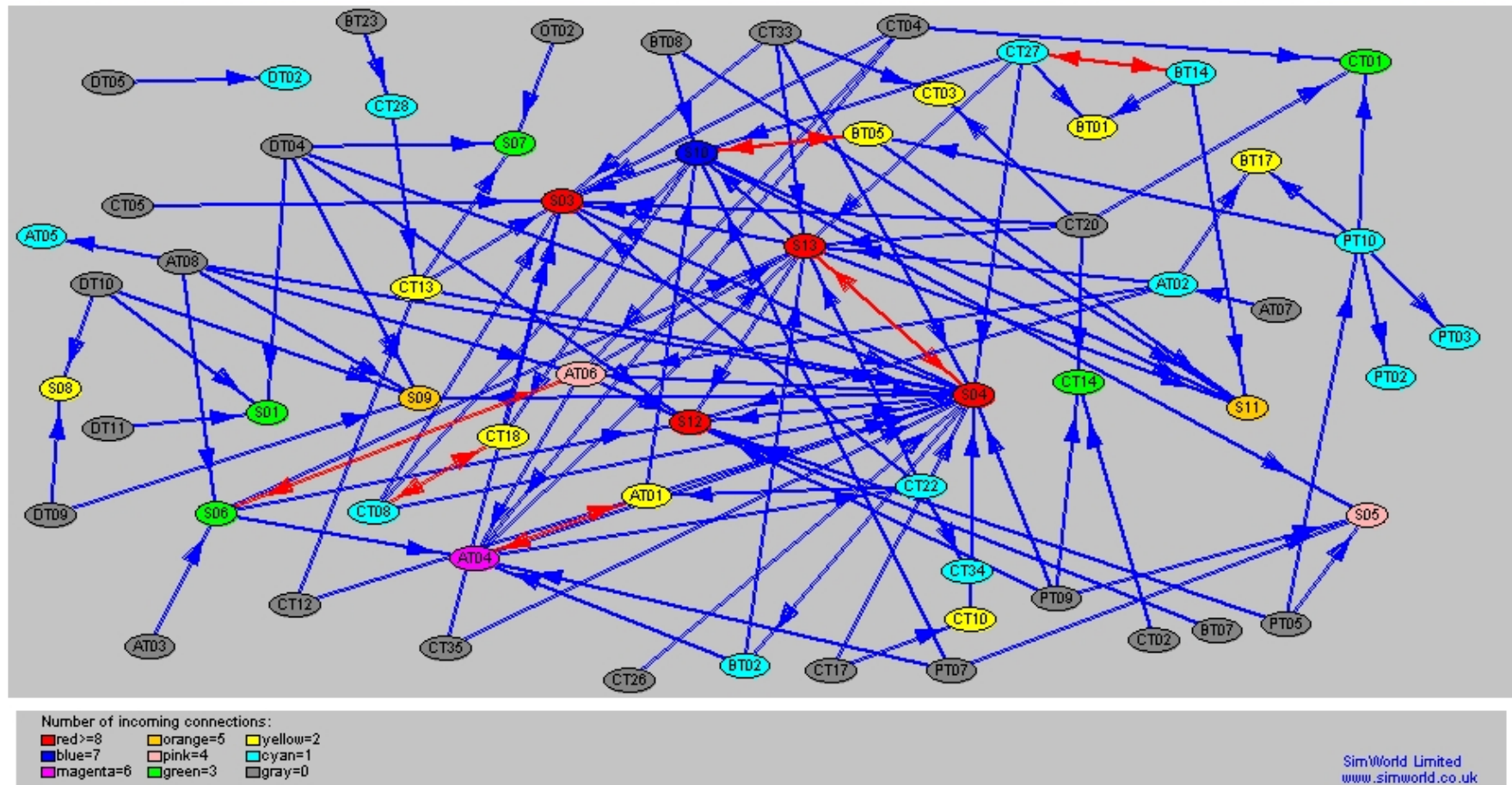
Ties between nodes are indicated by a blue single-headed arrows for incoming links and red double-headed arrows for reciprocal connections.

Other network diagrams

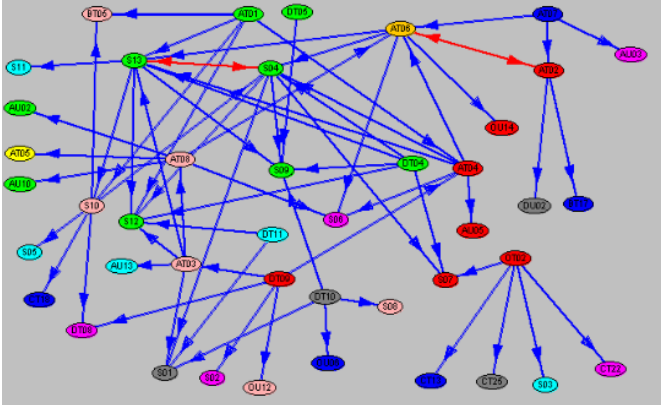
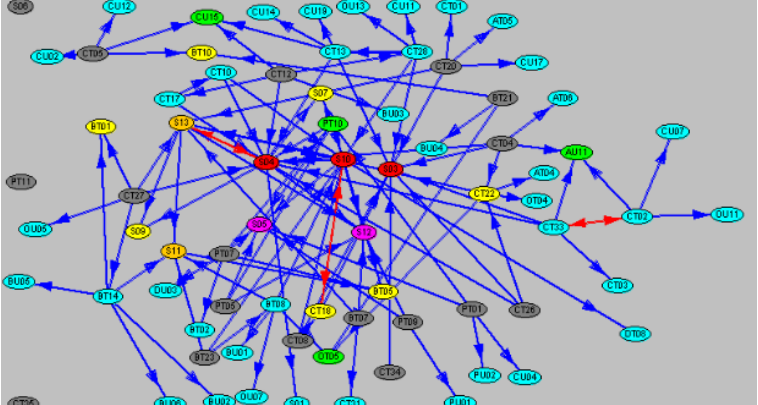
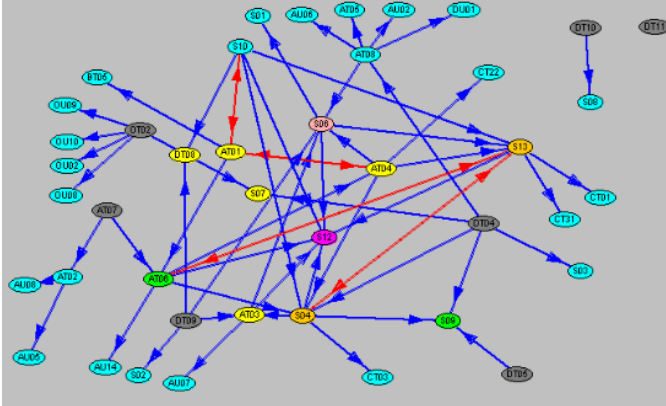
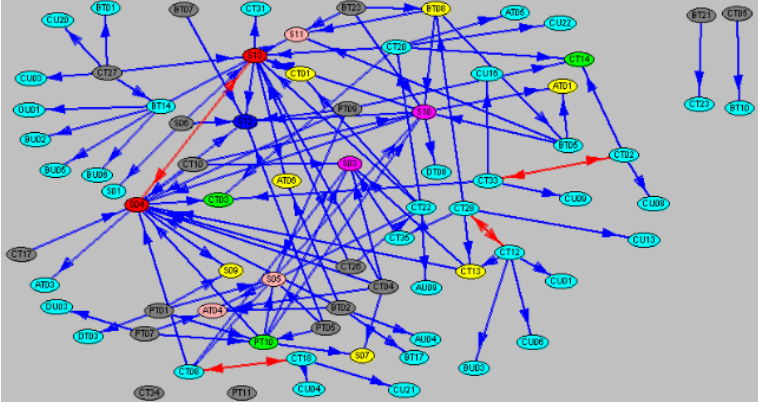
For completeness, the network diagrams on the subsequent pages illustrate the social networks for Questions 1,2,4,5. They exhibit similar structures to the Q3 network. Since the network diagrams were very crowded, the data has been split into two groups so that overall network structures can be displayed more clearly.

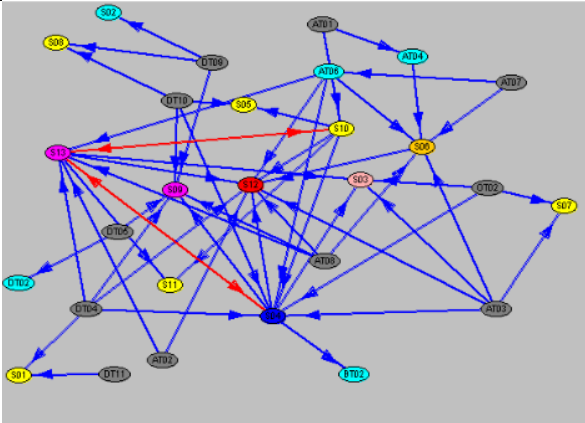
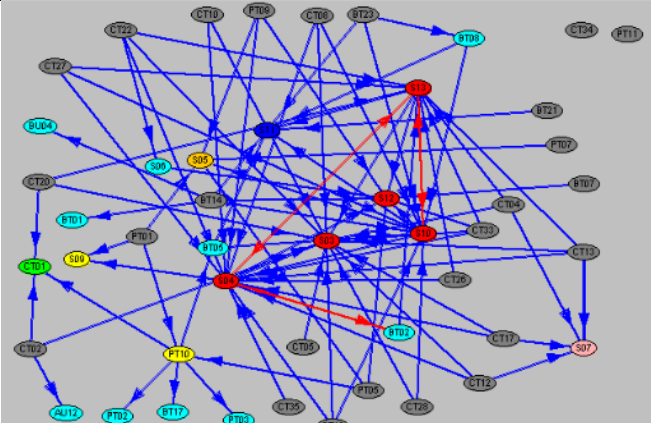
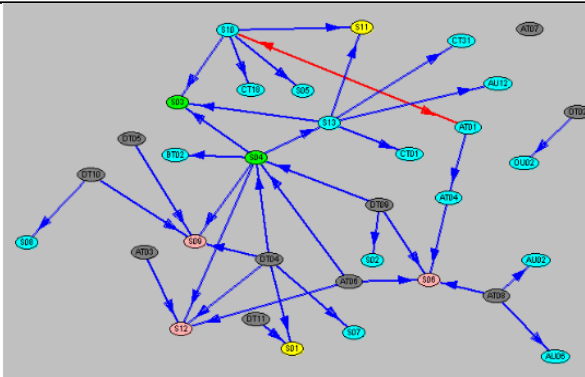
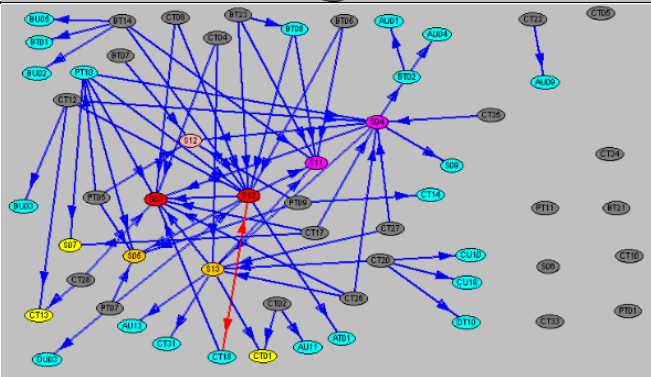
Q3 – When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...

...influence others to support your idea?



Note: To streamline the visual, only nodes within the Top 100 are displayed.
Eight nodes from outside the Top 100 are not displayed - each has 1 incoming link

Question	DEPARTMENTS: ADOS	DEPARTMENTS:BCPS
<p>Q1: Who do you go to in order to find out what's going on around Educase?</p>		
<p>Q2: When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...</p> <p>...help you develop and shape the idea?</p>		

Question	DEPARTMENTS: ADOS	DEPARTMENTS:BCPS
<p>Q4: When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...</p> <p>...influence the TMT to support your idea?</p>	 <p>A network diagram for the ADOS department. Nodes are represented by colored circles with labels (e.g., S08, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S98, S99, S100). Red arrows indicate the path of influence from the TMT (S13) to other nodes.</p>	 <p>A network diagram for the BCPS department. Nodes are represented by colored circles with labels (e.g., S08, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S98, S99, S100). Red arrows indicate the path of influence from the TMT (S13) to other nodes.</p>
<p>Q5: When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...</p> <p>...ensure that your idea gets put into action?</p>	 <p>A network diagram for the ADOS department. Nodes are represented by colored circles with labels (e.g., S08, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S98, S99, S100). Red arrows indicate the path of influence from the TMT (S13) to other nodes.</p>	 <p>A network diagram for the BCPS department. Nodes are represented by colored circles with labels (e.g., S08, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S98, S99, S100). Red arrows indicate the path of influence from the TMT (S13) to other nodes.</p>

(v) Survey responses/qualitative comments

Question	Responded ^a	Named ^b	Qualitative comments ^c
1. Who do you go to in order to find out what's going on around Educase?	44 (17)	74	<ul style="list-style-type: none"> ▪ intranet (5) - for one person, that was their first answer ▪ meetings, esp. departmental/committee meetings (3) ▪ colleagues they “<i>bump into</i>”, in “<i>nearby offices</i>”, “<i>staff at all levels</i>” (3) ▪ “<i>I talk to students</i>” (1)
When you want to create change that impacts more broadly than your direct area of responsibility, who do you go to in order to...			
2. ...help you to develop and shape the idea?	47 (6)	75	<ul style="list-style-type: none"> ▪ line manager (3) ▪ managers of those affected - “<i>managers of other staff who the change will affect</i>” and “<i>whichever dept head the change relates to</i>” (2) ▪ staff – “<i>users</i>” and “<i>staff who will be affected by the change</i>” (2)
3. ...influence others to support your idea?	43 (2)	45	<ul style="list-style-type: none"> ▪ senior managers - own line manager, Department Head, or TMT (4) ▪ go to colleagues and Department Heads “<i>most affected by the change</i>” (3) ▪ do not get involved - “<i>I do not feel encouraged to seek such influence in other areas</i>”, “<i>If it is outside my direct area of responsibility I don't!</i>” (2)
4. ...influence the TMT to support your idea?	46 (4)	27	<ul style="list-style-type: none"> ▪ line manager (3) ▪ “<i>talk to members [of TMT] directly</i>” (2) ▪ “<i>I do not feel encouraged to seek such influence in other areas</i>” (1)
5. ...ensure that your idea gets put into action?	37 (3)	43	<ul style="list-style-type: none"> ▪ It depends; “<i>Depends on the idea - peer colleagues or subordinates</i>” (2) ▪ “<i>self driven mainly</i>” (1) ▪ “<i>I do not feel empowered enough in other areas</i>” (1)

^a Indicates number of people who both responded **and** gave their name, so responses could be used in the social network. The number in brackets indicates others who responded but did not give their name. The latter data has not been used in the network analysis, but any qualitative comments have been included

^b Indicates the number of unique names given in response to this question and used in the SNA

^c Examples of qualitative comments from open text fields. (n) = no. of comments

Appendix G: Change leader survey – results

(i) Responses: The change leader survey formed the second part of the social networks survey and asked a further three questions. Each question had five free-text fields and invited respondents to name *up to* five people. The table below details numerical and qualitative responses per question.

Question	Responded ^d	Named ^e	Qualitative comments ^f
6. In your experience, who generates significant ideas for change at Educase?	49	37 ^g	Ideas for change come from: <ul style="list-style-type: none"> ▪ groups at the top of the hierarchy e.g. TMT, HoDs (4) ▪ students groups (1) ▪ <i>“many, many other staff at all levels”</i> (1)
7. In your experience, who plays a key role in shaping the agenda for change at Educase?	46	26	<ul style="list-style-type: none"> ▪ groups at the top of the hierarchy that shape the agenda for change i.e. governing body (1), the most senior TMT members (3), TMT (6), HoDs (1) ▪ departmental teams play a key role in shaping the agenda for change at Educase (1)
8. In your experience, who needs to say ‘yes’ for change to happen at Educase?	49	15	<ul style="list-style-type: none"> ▪ groups at the top of the hierarchy need to say ‘yes’ to change i.e. TMT (6), governing body (6), senior TMT members (3), HoDs (3), academic committee (2) ▪ <i>“all senior staff”</i> (1), academic staff (1), <i>“senior administrative staff”</i> (1) ▪ students (1) ▪ external bodies e.g. HEFCE, regulators and others (1)

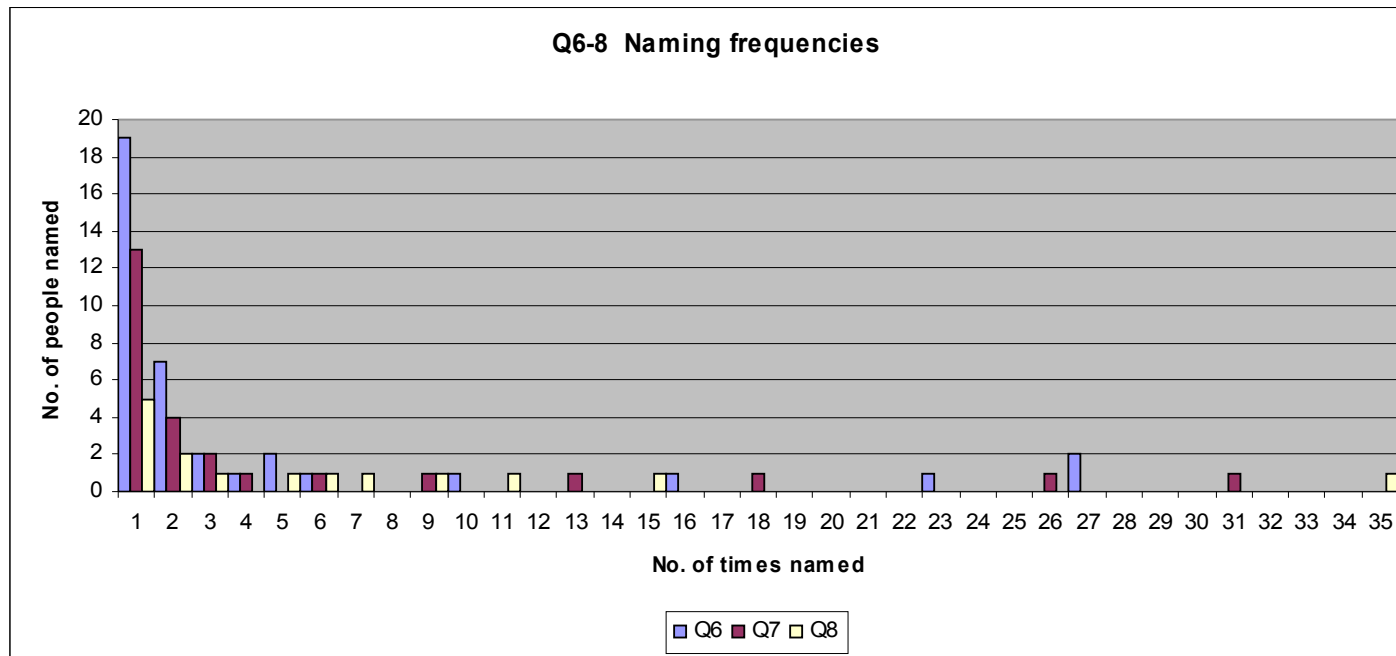
^d All responses were included, whether or not respondents gave their own name

^e Indicates the number of unique names given in response to this question

^f Summary of qualitative comments from the open text fields. (n) = no. comments

^g Respondents were invited to include their own name, if appropriate. In Q6, 16 people out of 49 included their own name

(ii) Shape of the data: The shape of the data for those named also follows a broad power-law distribution with a long tail to the right (more pronounced in the change leader survey). For each question, many people were named once, but a few people were named multiple times. In Q7, one person was named 31 times, the first person on 27 lists, which may suggest he was the first person to come to mind. In Q8, that same person was named 35 times; named first by 32 people.



Times named:	Q6	Q7	Q8
1	19	13	5
2	7	4	2
3	2	2	1
4	1	1	
5	2		1
6	1	1	1
7			1
8			
9		1	1
10	1		
11			1
12			
13		1	
14			
15			1
16	1		
17			
18		1	
19			
20			
21			
22			
23	1		
24			
25			
26		1	
27	2		
28			
29			
30			
31		1	
32			
33			
34			
35			1

(iii) Most named

The table below indicates who was named in response to each question.

The coding framework is the same as used in the SNA (S= member of the TMT; T= member of the Top 100; letters before the T represent departments).

Q6 most named		
	Code	Times named
1	S13	27
2	S04	27
3	S12	23
4	S10	16
5	S09	10
6	CT01	6
7	CT13	5
8	S02	5
9	S05	4
10	CT03	3
11	S03	3
12	CT33	2
13	BT01	2
14	AT03	2
15	AT06	2
16	S11	2
17	CT12	2
18	S06	2

Q7 most named		
	Code	Times named
1	S12	31
2	S13	26
3	S04	18
4	S10	13
5	S09	9
6	CT01	6
7	S03	4
8	S05	3
9	S02	3
10	S11	2
11	DT02	2
12	AT06	2
13	S07	2

Q8 most named		
	Code	Times named
1	S12	35
2	S13	15
3	S03	11
4	S10	9
5	S04	7
6	S09	6
7	S11	5
8	S05	3
9	S06	2
10	S07	2

Notes:

Includes those named 2 times or more

Shaded = TMT members

Appendix H: OD illustration - a practical contribution

Living the brand

Context

A large, successful charity is undertaking a major rebranding exercise, designed to refresh its brand personality from the inside out. A number of brand leaders have been appointed across the organisation. The project team and the brand leaders have begun to develop formal elements of this change programme: brand collateral; internal communications; 'big ideas' which epitomise the brand in action; and three streams of work activities.

The work

An OD consultant invited to support the cultural dimension of living the brand uses the results of this study to (1) inform some principles for this work, which she uses to contract with her client and members of the project team, and (2) to develop a process for working with the community of brand leaders which uses action research principles.

Principles

- Culture is co-created. The brand provides the stimulus for change but the response is up to us all. So whatever we plan, and however well we plan it, culture change has enormous potential to surprise us. We might be pleasantly surprised, even delighted. Or we might be disappointed, or frustrated.
- The cultural dimension of living the brand intertwines formal and informal elements. The formal strand comprises brand collateral, communications, big ideas and workstreams. The informal strand considers the everyday nature of our interactions at work: how we feel, think, and behave together.
- We cannot 'manage' culture change as a project, but there are many things we can do. We can strive to notice weak signals. We can make space to learn together about what is going on. We can act to amplify those things that help us live the brand. We can try to understand what's getting in the way and why that's happening, so we can experiment and adapt.
- In order to do this we need a network across the organisation. No one person or team, however smart they are, can do this alone. We have the start of such a network with the Brand Leaders.

Process for working with brand leaders

☐ **Kick-off workshop - how culture change really works**

- The self-organising nature of change
- What that means for you as change leaders

☐ **Group learning spaces (monthly)**

- **Weak signals** - What's going on? How is it different? What stories and pictures convey this?
- **Building the picture** - What patterns are emerging? Why might they be emerging?
- **Learning/adapting** - What can we amplify and build? What might we need to change?
- **Process review** – How is this working? How could it work even better for us all?

☐ **Individual diaries (weekly)**

- Diaries – prompt questions, reflections.

How the process works

This process takes an action research orientation, using cycles of action and reflection to generate learning and change. A key premise of action research is that it is only by understanding the organisation really well that we can hope to change it. This is not an easy task since the thing we understand really well is the old, the organisation we have been – not the new, what we might hope to become. Yet by reflecting and learning together, we can both understand and play a part in creating the new organisational culture.

What the process delivers

There is an important developmental component, for participants, and for the organisation. It is expected that individual brand leaders will develop their change leadership capability, since actively leading this kind of change is very different to traditional change management.

Collectively the organisation will develop a community of leaders who can think critically beyond their own area and who have developed skills in supporting and challenging their peers.

Appendix J: Change leader narratives (for examiners only)

Appendix J presented four character narratives about the ‘most active’ change leaders featured in Chapter 6 – Peter, Richard, Justin and Jim. Each narrative drew together multisource data (multiple informants, including self-report, and multiple methods) about that change leader in 5-6 pages.

The examiners of this doctoral thesis were privileged to see that confidential data which provided additional supporting empirical evidence. This data has been removed from the published thesis to preserve anonymity. However, interested parties may wish to contact the author if they have any questions. To do so, please contact:

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