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Moving from interpretivism to critical realism in IS research: An exploration and supporting IT outsourcing example

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research: an exploration and supporting IT outsourcing
example

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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

Abstract:

The major contribution of the thesis is to highlight the importance of philosophical awareness in progressing research. It argues against the use of *a priori* theory in research and proposes that an understanding of the philosophical underpinnings of particular research approaches can provide the opportunity to *be ones own guide* and to *work out critically one's own conception of the world*. It suggests that the adoption of critical realism as the underlying philosophical base can support research in a useful and practical manner. The thesis introduces the philosophy of critical realism and uses its underlabouring role to provide new insights into the information systems arena in general and the case example in particular. The thesis specifically concentrates on a comparison between interpretivism and critical realism, highlighting the differing approaches both have to research.

The thesis provides an illustrative case example examining the development of an organisation's first Information Business Plan and the subsequent outsourcing of the IS Department. The study was originally targeted at describing the implementation of the organisation's first information business plan but this changed as the information business plan implementation was overtaken by events. It is argued that political directives from above were the major reason behind the organizational move to outsource all non-core activities, including IS. The thesis documents a dissatisfaction with the original interpretivist approach on which the case investigation was based and uses the case example to highlight the thesis arguments.

Critical realism provides a promising analytical and explanatory framework for examining the interplay between structure and agency within organizations. It involves both interpretive and explanatory understanding

1

unified in "the analysis of structural relations, and the ways in which these affect, and are affected by, the subjective meanings of human beings" (Keat and Urry, 1982, p. 174). This thesis will reflect these understandings and emphases.

Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

(i)   incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;

(ii)   contain any material previously published or written by another person except where due reference is made in the text; or

(iii)   contain any defamatory material.

The following publications include parts of this thesis:

Parts of Chapter 2 are included in Dobson, P. (2001), The philosophy of critical realism - an opportunity for information systems research, *Information Systems Frontiers*, July 2001.

Parts of Chapter 5 are included in Dobson, P. (2001), Longitudinal case research – a critical realist perspective, *Systemic Practice and Action Research Journal*, Vol: 14, Iss: 3, June 2001, and Dobson, P. (2002), Critical realism and is research - why bother with philosophy?, *Information Research*, January, 2002, [Available at http://InformationR.net/ir/]

Parts of Chapter 7 and 8 are included in Dobson, P. (2001), Outsourcing as fad – the rational agent versus structural imposition, *Proceedings Pacific Asia Conference on Information Systems 2001*, Seoul, Korea, June 2001, and Dobson, P. (2002), Innovation diffusion from a structure/agency perspective, *Proceedings IFIP WG 8.6, Sydney, August 2002* (to be published).

Parts of Chapter 9 are included in Dobson, P. and Standing, C. (2001), Whatever happened to the IT plan?, *Proceedings European Conference on Information Systems 2001, Bled, June 2001.*

Parts of Chapter 3 are included in Dobson, P. (2001), Investigating ERP systems using structuration theory – a critique, *Proceedings We-B Conference 2001, Perth, Western Australia.*

Parts of Chapter 11 are included in Dobson, P. (2001), Revisiting the SOSM, *Proceedings of the 7th Australian and New Zealand Systems Conference*, Perth, 2001, and Dobson, P. (2002), The SoSM Revisited - a critical realist perspective, in J. J. Cano (ed), Critical Reflections on Information Systems: A Systemic Approach, Idea Group, New York.

Parts of Chapter 10 are included in Dobson, P. (2001), What's in a name? - 'BPR' versus 'Outsourcing' - a critical realist perspective on emancipation, *Proceedings of the 7th Australian and New Zealand Systems Conference, Perth, 2001.*

4

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Dedication

To my parents, who have always instilled in us the value of education. Education can provide a kind of freedom and is broadening as Robert Frost suggests when he describes education as "the ability to listen to almost anything without losing your temper". Hopefully non-realists can read this thesis without losing their temper.

TABLE OF CONTENTS

CHAPTER 7 - EXAMINING THE OUTSOURCING DECISION - A KNOWLEDGE-FOCUSSED PERSPECTIVE   220

11

List of Figures

15

List of Tables

Introduction

This section aims to introduce the thesis and explain the reasoning behind the adoption of critical realism as an underlying philosophy. It then provides a roadmap for the thesis development

The Writing Style

One foundational argument within this thesis is that realist enquiry can learn from post-modernism and its associated techniques. Kilduff and Mehra (1997) argue that there are two styles of postmodernism: the sceptical and the affirmative. "From the sceptical perspective all interpretations of phenomena are equally valid, and the world is so complicated that concepts such as prediction and causality are irrelevant. Everything is related to everything else so the search for causes or origins must be discontinued." (p. 455)

In contrast, the affirmative postmodernist "retains the possibility of making discriminations among competing interpretations." The affirmative postmodernist "would underscore novelty and reflexivity as it looks at the richness of difference and concentrates on the unusual, the singular and the original" (Rosenau 1992, p. 169). Pluralist approaches can be seen to be in line with the "post-modern condition", which is described by Jackson (1991) as thriving on "instability, disruption, disorder, contingency, paradox, and indeterminacy", and requiring recognition of multiple interpretations of the world. The neglect of philosophy as such can be seen to be a particular feature of the post-modernist approach:

> ...postmodern practitioners, in pursuit of revolutionary challenges to conventional wisdom, can mix and match various perspectives or research styles for aesthetic effect or in order to contrast with tradition. This freedom to combine styles of discourse follows from the belief that no method grants privileged access to truth and that all research approaches are

17

embodied in cultural practice that postmodernists seek to make explicit. The mixing and matching of diverse styles helps surface the cultural practices within which each style is embedded. (Kilduff and Mehra 1997 p. 456)

Stones (1996), from a contemporary realist (or sometimes called neorealist) perspective, argues against the defeatism of the sceptical post-modernist. He celebrates the post-modernist emphasis on plurality and diversity and, like the post-modernist, recognizes the enormous difficulty in providing accurate accounts of the social world. However, in his description of "past-modern realism" he disagrees strongly with the sceptical post-modernist in that he suggests that "yes, the world is that complex; yes, it is often very hard to get at; yes, sociologists and other social scientists often claim an authority they have no right to; and, no, the defeatist postmodernists are not right to imply that the only alternative to a complete and total knowledge of a very complex world is a retreat into fiction" (Stones, 1996, p. 38).

In line with post-modernist argument Stones (1996) suggests that contemporary realist examination requires precision and contextualized detail. This contextualization is a necessary consequence of an underlying ontologically bold philosophy (Outhwaite 1987, p. 34). As detailed below, critical realism is ontologically bold in the sense that it not only encompasses an external realism in its distinction between the world and our experience of it but it also suggests a stratified ontology and a so-called depth realism in defining the objects that make up such a world. This concept suggests that reality is made up of three ontologically distinct realms – first, the empirical, that is experience; second, the actual, that is events (i.e. the actual objects of experience); and third, the transcendental, non-actual or deep, that is structures, mechanisms and associated powers.

The deep structures and mechanisms that make up the world are thus the primary focus of such an ontological realism, *events* as such not being the primary focus. An important element within critical realism is that these deep structures and mechanisms may, in fact, be only observable through their effects and thus a causal criterion for existence is accepted:

> Observability may make us more confident about what we think exists, but existence itself is not dependent on it. In virtue of this, then, rather than rely purely upon a criterion of observability for making claims about what exists, realists accept a causal criterion too (Collier, 1994). According to this a plausible case for the existence of unobservable entities can be made by reference to observable effects which can only be explained as the products of such entities.... A crucial implication of this ontology is the recognition of the possibility that powers may exist unexercised, and hence ...the nature of the real objects present at a given time constrains and enables what can happen but does not pre-determine what will happen. (Sayer 2000, p. 12)

The ontological complexity assumed by critical realism is, however, matched by a conservative epistemology that leans heavily on scientific argument and development. Stones (1996) suggests that if contemporary realist research is to address post-modern criticism it needs to be more aggressive in its methodological approach. Realist methodologies need to be able to account for the underlying ontological richness they implicitly assume and also need to reflect the belief that any knowledge gains are typically provisional, fallibist, incomplete and extendable. Realist methodologies and writings, thus, must reflect a continual commitment to caution, scepticism and reflexivity.

One proposal of this thesis is that realist writings can follow the example provided by post-modernist textual representations in the way that they reflect skepticism and reflexivity. The post-modernist argues for "the creation of new texts that break boundaries; that move from the centre to the

19

margins to comment upon and decentre the centre; that forgo closed, bounded worlds for those more open-ended and less conveniently encompassed; that transgress the boundaries of conventional social science; and that seek to create a social science about human life rather than *on* subjects" (Guba and Lincoln, 2000, p. 184). Post-modernist representations can help avoid two inherent dangers seen in the textual representations of the scientific method:

- They may lead us to believe that the world is rather simpler than it is

- They may reinscribe enduring forms of historical oppression (Guba and Lincoln 2000, p. 184)

Guba and Lincoln suggest that a crisis of representation exists whereby the subjects of social science are silenced in textual representation thus perhaps fostering the re-creation of existing dangerous illusions and associated underlying ideologies. Thus, the requirement to reflectively present this assumed ontological complexity and knowledge fallibility has prompted the inclusion of a "handwritten" reflective element in the thesis. Such handwritten text boxes are intended to allow a place for reflection on the progress of the research and my own role within that process.

> This self-reflective aim is represented by using a hand-written font style (called JP Hand). Ideally these handwritten texts should be placed in various positions throughout the page in a freeform manner, however, I feel these text boxes are a sensible compromise to encourage easier readability.

As defined by Guba and Lincoln (2000, p. 183) reflexivity is "the process of reflecting critically on the self as researcher" and thus the text-boxes will provide a means to reflect on my own role in the research process. The text boxes will also be used to highlight alternative viewpoints and to

provide further background to claims made thus helping to avoid Guba and Lincoln's criticisms that scientific writing can oversimplify. This target supports Richardson (2000) who sees writing as a form of enquiry:

> I consider writing as a method of inquiry, a way of finding about yourself and your topic. Although we usually think about writing as a mode of "telling" about the social world, writing is not just a mopping-up activity at the end of a research project. Writing is also a way of knowing – a method of discovery and analysis. By writing in different ways, we discover new aspects of our topic and our relationship to it (p. 923)

The text boxes also, perhaps, soften the dryness of traditional scientific argument and support the view that research writing should be seen as a dynamic, creative process:

> I was taught ...not to write until I knew what I wanted to say, until my points were organised and outlined. No surprise, this static writing model coheres with mechanistic scientism and quantitative research... This model has serious problems: It ignores the role of writing as a dynamic, creative process; it undermines the confidence of beginning qualitative researchers because their experience of research is inconsistent with the writing model; and it contributes to the flotilla of qualitative writing that is simply not interesting to read because adherence to the model requires writers to silence their own voices and to view themselves as contaminants. (Richardson, 2000, p. 924)

The inclusion of these separate text boxes makes use of the word processing ability to add sections after "final" drafting without reformatting and without upsetting the flow of argument. They thus encourage critique and reflection and can be used to represent the emergent nature of the research process. They have proven to be a powerful tool.

The intended audience

The intended audience for a thesis largely defines the writing style and depth of coverage. Erickson (1986. p. 153) lists four fundamental audiences - researchers, policymakers, practitioners and local community. This thesis largely addresses the first of these in that it emphasizes the importance of philosophical reflection within IS research. As such I spend a deal of time discussing my own research position and the reasons for my increasing commitment to critical realism. The first part of the thesis details my initial struggle and ultimate rejection of interpretivism as an underlying philosophical approach. This journey occurred over several years and the accumulated insights gained are represented as an ongoing story within the thesis. Certainly I have a much better understanding of interpretivism and critical realism now than I had at the commencement of this journey and I therefore would write a much shorter introductory section if I wrote the thesis now. However, such compact writing would not, in my view, adequately reflect the initial struggles I had with understanding the basic philosophical issues. The thesis represents a journey and as such is perhaps verbose in sections, but ultimately I am targeting a particular audience – those philosophically inclined researchers within the IS field who see information systems as social systems and consequently struggle themselves with extending philosophies from the social sciences arena to the applied area of IS.

The later chapters are more closely targeted towards the IS practitioner, but primarily these chapters are designed to support earlier chapters in that they emphasize the practical benefit and value of philosophical reflection. The primary audience for this thesis is a philosophically inclined IS research community rather than the "practitioner" that Erickson suggests as an alternative audience. Such a focus clearly has affected the tone, writing style and depth of coverage.

22

Why critical realism?

This thesis suggests that critical realism can provide a useful foundation for IS research and proposes some of the practical implications of such a foundation. Critical, or transcendental, realism as envisaged by Bhaskar (1978, 1979, 1986) argues that there exists a reality totally independent of our representations of it; the reality and the "representation of reality" operating in different domains, roughly a transitive epistemological dimension and an intransitive ontological dimension. Such a proposal is common to many realist approaches and is referred to by Searle (1995) as external realism.

Critical realism does not, however, rest solely on this presumption. As Lawson (1997) argues transcendental (or critical) realism as originally proposed by Bhaskar (1978) is developed around a scientific realist position which asserts that "the ultimate objects of scientific investigation exist for the most part quite independent of, or at least prior to, their investigation" (p. 15). This common external realist position is however extended under critical realism in that it also presents a philosophical argument for the nature, constitution and structure of the underlying objects of enquiry. Such a realism is heavily concerned with ontology or metaphysics, that is, the nature of *being* and *existence*. Bhaskar (1978) develops his realist philosophy of science founded on the question "under what conditions is science possible?". This philosophical questioning concludes a, so-called, depth realism that proposes that "the world is composed not only of events and our experience or impression of them, but also of (irreducible) structures and mechanisms, powers and tendencies, etc. that, although not directly observable, nevertheless underlie actual events that we experience and govern or produce them" (Lawson, 1997, p. 8).

23

Such arguments are extended to the social arena in a similar fashion through considering the associated question "under what conditions is social science possible?", again the conclusion being that social "science" is only possible if similarly real (relatively) **enduring** structures exist within the social arena. Having concluded the existence of such objects of social enquiry Bhaskar and others have developed a consistent line of enquiry based around these presumed underlying social objects. As Lawson (1997) suggests many of the things that traditionally have been done in the social arena are found to be inconsistent with the underlying nature of the social objects proposed and into which such enquiry has been made (an example being fundamental problems with the way that prediction and falsification have been viewed in the open systems evident within the social arena). Philosophy is thus heavily bound into this model of social enquiry. Critical realism proposes that philosophy plays an important and integral role in research, its continued use conditional on its practical success.

The following headings detail some of the reasons for the adoption of critical realism. The argument will be further expanded in later chapters.

> The above discussion is a huge simplification of the philosophy of critical realism. The arguments proposed in these 2 paragraphs form a part of two philosophical texts by Bhaskar (1978, 1979) "A Realist Philosophy of Science" and "The Possibility of Naturalism" - they clearly cover much more than such a simple introduction implies.

Why bother with philosophy?

Philosophy can be defined as "the critical examination of the grounds for fundamental beliefs and an analysis of the basic concepts employed in the

expression of such beliefs" (Encyclopaedia Britannica, p. 388, Micropedia, Vol. 9, 1985).

Alternate philosophical descriptions

Such a definition masks a deal of complexity. Within Western Philosophy "Philosophy" has been taken to mean many things, such definition varying substantially since Grecian times. The Encyclopaedia Britannica suggests that a fundamental definition would be as "a reflection upon the varieties of human existence" or as the "rational, methodical, and systematic consideration of those topics that are of greatest concern to man" (Macropedia, Vol. 25, p. 742, 1985 edition).

They argue that "philosophizing" can be seen to be a reflective or meditative activity and philosophy as being generally categorized as "of" something (for example, Bhaskar (1978) develops an argument for a critical realist approach around a realist philosophy of science). This varying focus reflects the fact that philosophers come from different fields, with different interests and concerns as to what is important to reflect upon. Bhaskar originates from within the social sciences so that much of the philosophical focus within critical realism is to do with social issues such as the necessary conditions for a social "science".

As the IS research arena matures it is no surprise that a number of IS researchers have called for a greater philosophical commitment within IS

25

research and have targeted a clearer definition of the underlying philosophy and assumptions inherent in IS research (eg Mumford, Hirschheim, Fitzgerald, and WoodHarper (1985); Banville and Landry (1989); Iivari (1991); Orlikowski and Baroudi (1991); Nissen, Klein and Hirschheim (1991); Hirschheim, Klein and Lyytinen (1995); Iivari and Hirschheim (1996); Winder, Probert, and Beeson (1997); Mingers and Stowell (1997); Iivari, Hirschheim, and Klein (1998); Fitzgerald, B. and Howcroft, D. (1998); Wilson (1999)).

old-fashioned views of realism within IS research

Many of these articles have an old-fashioned view of realism. For example, Iivari, Hirschheim and Klein (1998) see classical realism as seeing "data as describing objective facts, information systems as consisting of technological structures ("hardware"), human beings as subject to causal laws (determinism), and organizations as relatively stable structures" (p. 172). Wilson (1998) sees the realist perspective as relying on "the availability of a set of formal constraints which have the characteristics of abstractness, generality, invariance across contexts".

Fitzgerald and Howcroft (1998) present a realist ontology as one of the foundational elements of positivism in discussing the polarity between hard and soft approaches in IS. Realism is placed alongside positivist, objectivist, etic epistemologies and quantitative, confirmatory, deductive, laboratory focussed and nomothetic methodologies. Such a traditional view of realism is perhaps justified within the IS arena as it reflects the historical focus of its use, however, there now needs to be a greater recognition of the newer forms of

realism – forms of realism that specifically address all of the positivist leanings emphasised by Fitzgerald and Howcroft (1998).

Wilson (1998) comments on the remarkable resilience and resourcefulness of realist argument in the face of the "rise of relativism" and suggests that it may be too soon to say that realist argument "lies in ruins" (p. 163). This thesis is intended to support this contention.

A philosophical commitment can be seen to involve rational thinking and logical argument as the Philosophical Society suggests: "every branch of knowledge depends upon rational thinking, but philosophy is unique in that the application of reason and logic becomes the very source of knowledge - whether employed critically, in the examination of the assumptions underlying a field of inquiry or belief system, or constructively in the search for necessary truths about the nature of reality itself". This theoretical focus is emphasised throughout the thesis.

The IS field does, however have a heavy practical focus and, as Orlikowski and Barley (2001) argue, has much in common with engineering where the major focus is on such practical questions as "what works?". Given this heavy practical focus it is no surprise that an alternate perspective exists within the IT arena disparaging this involvement in philosophy and philosophical argument. Ormerod (1997), for example, dismisses the role of philosophy when he discusses organisational intervention from an operational research perspective:

Any choice mechanism should, in my view, be rooted in practical requirements rather than in theoretical considerations with which very few practitioners could feel at home. In simple terms the approach (methods and their theories) chosen must support

a process of intervention (practice) in a particular context to achieve the desired outcome. (p. 421)

This argument is not uncommon within such a practically focused arena as the IT field and can be seen to represent a *consultancy* type approach to research with practicality dominating the researcher perspective. Such a perspective sees theory application as directed towards successful practical intervention with little time for philosophical justification. From this perspective the practicalities of the intervention predominate as Ormerod (1997) suggests: "the choice of methods will depend on the organisational context, the degree of participation envisaged, the consultant's skill and on the nature of the outcome required" (p. 415).

Such a view, however, neglects the useful role that philosophy can play as *underlabourer* to research and practice - the term underlabouring taken from Locke (1894, p. 14) as "clearing the ground a little...removing some of the rubbish that lies in the way of knowledge". Critical realism argues that philosophy can play an important and useful role in practical research.

Collier (1994, p. 17) answers the question "why bother with philosophy?" with the following:

A good part of the answer to the question "why philosophy?" is that the alternative to philosophy is not *no* philosophy, but *bad* philosophy. The "unphilosophical" person has an unconscious philosophy, which they apply in their practice -- whether of science or politics or daily life.

Similarly Gramsci (1971, p. 323) argues "...everyone is a philosopher, though in his own way and unconsciously, since even in the slightest

manifestation of any intellectual activity whatever, in "language" there is contained a specific conception of the world" (from Collier 1994, p. 17).

The "bothering" with philosophy can also provide the potential for emancipation from a domination by a particular social or academic group:

> ...is it better to take part in a conception of the world mechanically imposed by the external environment, i.e., by one of the many social groups in which everyone is automatically involved from the moment of his entry into the conscious world...Or, on the other hand, is it better to work out consciously and critically one's own conception of the world and thus, in connection with the labour's of ones own brain, choose one's sphere of activity, take an active part in the creation of the history of the world, be one's own guide, refusing to accept passively and supinely from outside the moulding of one's personality (Gramsci (1971, pp. 323-324) as quoted in Collier (1994, p. 17)).

Being my own guide and the avoidance of a priori theory

The above argument for a greater commitment to philosophy is highlighted in my own case. With my supervisor heavily interpretive in focus the initial progress of my research was directed towards narrative and situational description. I was not comfortable with this as I had difficulty in seeing research as primarily aimed at description. I did not feel that I could provide the necessary authenticity to carry through and progress such research.

The initial stages of my thesis focused on an ethnographic case study to observe the development of an organization's first information plan. This

examination followed an interpretive approach with little justification apart from the fact that my experience was in the area and my supervisor was similarly interpretive in focus. This basis for research writing is criticized by Klein and Myers (1999) who argue that many interpretivist accounts wrongly adopt *a priori* theory to analyze research data. Insightfully they suggest that often this *a priori* theory is chosen, not as a function of the underlying object or purpose of the study, but as a consequence of the researcher's prior experience or the politics of the research process (see for example Trauth, 2001). As detailed in Chapter 4 below I propose that such matters should not impact the decision on what research approach to adopt, the main focus needing to be on the object of the research and the stated purpose.

In the initial stages of this thesis I came to realize that I was applying interpretivism and its associated methodologies in an *a priori* manner without a clear reflection on the merits and demerits of such use. This realization prompted a more detailed examination of the underlying philosophical basis for interpretivism and led to an examination as to whether critical realism could provide a useful alternative. This philosophical questioning and consequent understanding provided an opportunity and strength to "be my own guide" and to find another path.

Critical realism as a social philosophy for IS?

Critical realism seems a sensible philosophy for IS in that it is derived from within the social arena and thus encourages the recognition that information systems operate within a social environment. As Avgerou (2001)

suggests a consideration of the social context of IS research and development is vital. This theme has been supported for many years in the IS arena and is an ongoing issue (some of the more important contributions coming from, Kling (1980); Lyytinen and Lehtinen (1984); King (1987); Land and Hirschheim (1983); Zuboff (1988); Orlikowski (1992); Lyytinen (1992); Walsham (1993); Baskerville, Smithson, Ngwenyama and DeGross (1994); Orlikowski, Walsham, Jones, and DeGross (1996); Hirschheim, Klein, and Lyytinen (1996); Introna (1997); and Baskerville, Stage and DeGross (eds) (2000)).

The information systems field has historically followed a functionalist and positivist research approach. In more recent years there has been an increasing recognition of the importance of the subjective social aspects of information systems, as well as the objective, measurable technical aspects. Ivari, Hirschheim and Klein (1998) describe the two fundamental views of information systems as being "technical systems with social implications" or "social systems, only technically implemented". They perceive information systems from a structurational perspective as a social system which is "an embodiement of interpretive schemas, facilities for coordination and organisational/social norms" (p. 173)

Limitations of a social theory such as critical realism

As detailed in Chapter 3, I feel critical realism is particularly useful for examining the social environment in which an IT system resides but it suffers through its lack of a clear representation of the core - IT. In fact, generally, I feel that material objects are not well included in a social theory which concentrates on social structures and their relationships. As Marcus (1997, p. 17) reflects such an exclusively social model can have negative consequences in that if there is no specific representation of IT "neither we nor

31

others who read our work learn much about how variations in technology features shape human behaviour". Such a socially focussed model also tends to remove any advantage the technically informed IT researcher has in that many researchers in other fields do not have such knowledge. It is important, therefore, that a useful representation of IT be developed if critical realism is to provide a useful underlying framework. I will present such a model in Chapter 3.

Critical realism does, however, at least concentrate on the research object and thus provides the opportunity to consider the deeper technical issues involved in IS use and development.

Critical realism as a response to the crisis of positivism

Similarly the adoption of critical realism responds to a call from within the IS arena to move away from the traditional positivism that has predominated in the past. For example Orlikowski and Baroudi (1991) present interpretivism and critical theory as major responses to the more traditional positivist approaches. Blaikie (1993) from within the social sciences arena suggests that contemporary responses to a dissatisfaction with positivism include:

- Critical Theory
- Realism
- Contemporary Hermeneutics
- Structuration Theory
- Feminism.

32

Such responses to positivism have been similarly noticed in the IS field as Jones (2000), for example, points out. The author observes that over the period 1979-1999 57% of papers presented at IFIP WG 8.2 conferences had references to the four major social theorists Giddens, Habermas, Foucault and Latour. Giddens' structuration theory is an example of a contemporary realist response that has had a significant impact on IS research (see Rose, 2000) yet critical realism has had virtually no impact. This is somewhat surprising given the elements of similarity between the two theories, for example their similarly rich ontological focus and their commitment to a metatheoretical position that recognises the importance of structure **and** agency (there are important differences between the two theories, however, and these differences are discussed in Chapter 3). This thesis suggests that it would be useful to widen the range of social theorists used in IS to include that of Bhaskar and his critical realist approach. Critical realism is a relatively new social theory that is being used in a number of different disciplines to provide important new insights. The later chapters in the thesis discuss some of the new insights that can be particularly applied within the IS arena.

Critical realism as a response to the shortcomings of interpretivism

For the case example discussed, however, perhaps the most important justification for the adoption of critical realism is in reaction to the observed shortcomings of classical interpretivist methods (see Chapter 4). Orlikowski and Baroudi (1991 p. 13) present interpretivism as emphasising the social nature of reality:

> Interpretivism asserts that reality, as well as our knowledge thereof, are social products and hence incapable of being understood independent of the social actors (including the researchers) that construct and make sense of that reality

As will be demonstrated later in the thesis, critical realism would suggest that this argument reflects the so-called *epistemic fallacy* in that it confuses what Bhaskar (1979) calls the transitive knowledge focused dimension and the intransitive ontological dimension. According to Bhaskar the epistemic fallacy reflects a confusion between statements about the nature of being and statements about our knowledge of that being. For the critical realist, reality can never be a social product as argued by Orlikowski and Baroudi since it pre-exists the transitive, changing social analysis of it. Our perceptions of reality change continually but the underlying structures and mechanisms constituting that reality are "relatively enduring".

More particularly, for the case example presented in this thesis, critical realism provides a better means for explaining the changes that occurred. It will be argued that much of the decision to outsource the IT Department can be traced to the impact of a wider governmental "structure" that enforced a trend towards privatization and associated outsourcing. The presence of such a structure is not easily identified in an interpretivist framework with its emphasis on micro level agency interpretations. In contrast, the metatheoretical emphasis on structure **and** agency within critical realism allows a more useful means to represent such social structures.

<u>Critical realism as supporting the rational manager</u>

Importantly also, as argued in chapter 8, critical realism can provide an alternative to social constructivist theories that downplay the role of the active agent. As Craib (1992) suggests realism proposes that the agent has an important role to play in transforming social structures:

> human action does not create society but either maintains or changes it in some way – this is the sense in which the two are not independent of each other. Societies do not 'determine' agents, but they survive and change only through acting individuals. Bhaskar suggests a 'transformative' model of human actions: societies provide the raw material, human beings act on it, and societies come out the other end. The crucial property of

34

> human action... is that it is intentional: it aims at achieving
> something. (p. 20)

This does not imply, however, that the consequences of human action are always as intended and that agents can only have an active role in society (as discussed in Chapter 3, in contrast to structuration theory, there is also an important role for the non-doing agent). The important issue is that critical realism does provide an important active emancipatory role for the organizational member. In my view much of social constructivist theory downplays this important role and does not adequately reflect the decision-making rationality and emancipatory potential of the agent or manager.

As detailed in Chapter 7, social constructivist theory as applied to an innovative practice such as outsourcing, can emphasise the way that agents create sometimes distorted perceptions of innovative practice. This perspective tends to highlight the "faddishness" of managerial decision-making, largely downplaying the sensible rational decision making power of the active agent (for example, Newell, Swan and Galliers (2000) and Lacity and Hirschheim (1993) adopt social constructivist argument to present the faddishness of the organizational manager). Such a perspective, in my view, does managers a disservice in that it leaves them open to criticism for making decisions in a lemming like fashion with little deep analysis on their part. Adopting a realist perspective can allow the manager to be seen to operate in a logical and explainable manner, reacting to understandable external structures and mechanisms. Social constructivist explanation does not, in my view, provide adequate recognition of the complexity underlying organisational decision-making. To properly understand the pressures under which the organisational manager operates one needs to have a clear recognition of the real structures and mechanisms constraining them. Critical realism can provide this recognition through its emphasis on the way that agents interact with pre-existing structures. It importantly also gives agents

35

an important role in the re-definition of such pre-existing structures, and thus, as detailed in chapter 10, provides a basis for recognising their important emancipatory potential.

Outsourcing as fad

An example of the differing perspectives of the critical realist and the social constructivist might be in their corresponding description of the outsourcing phenomena. I attended a recent seminar presented by a leading social constructivist researcher. His view on outsourcing was that outsourcing was basically a fad with managers following trends in a lemming-like fashion with little proper investigation of the logic of the move to outsourcing. In my view this is a perfectly valid perspective on the outsourcing "craze", but, as in many interpretive accounts, I feel it goes too far - it does not give management decision makers enough respect. There is an element of interpretive "faddishness" in the outsourcing movement but there is also a lot of logic and good thinking. I feel that this is a major problem with interpretive accounts in that they over-emphasize the social construction of reality - they do not provide sufficient respect and recognition of the rational decision-making power of the individual agent.

Critical realism as supporting pluralism

Critical realism has been presented by Mingers (2001) as a foundation for pluralist methodology use. This support for pluralism is largely founded on its underlying focus on ontology and its perception of the major role for theory to improve our understanding of a complex separate reality. The philosophy of critical realism is compatible with a large number of different theories, yet, as detailed in later chapters of this thesis, the use of critical realism has implications with respect to the ongoing development of research

and as such it is perhaps less free with respect to the use of multiple theories and methodologies than is often implied. The adoption of critical realism as an underlying philosophical approach has important methodological consequences that need to be recognised as prominent critical realist Archer (1995, p.28) suggests:

> Once social analysts have been assured that ontology and methodology are separate issues, why should they not conclude that they can merely select the methodology which pragmatically seems most useful to them (thus sliding rapidly into instrumentalism), because if ontology is a separate concern, then it need to be no concern of theirs. Equally, once social theorists have been persuaded of the separation, what prevents an exclusive preoccupation with ontological matters, disregarding their practical utility and effectively disavowing that acquiring knowledge about the world does and should affect conceptions of social reality? This is a recipe for theoretical sterility. An ontology without a methodology is deaf and dumb; a methodology without an ontology is blind.

Critical realism argues for an intimate link between philosophy and consequent methodological and epistemological development. As Archer (1995) suggests "the nature of what exists cannot be unrelated to how it is studied...the social ontology endorsed does play a powerful regulatory role vis-à-vis the explanatory methodology for the basic reason that it conceptualises social reality in certain terms, thus identifying what there is to be explained and also ruling out explanations in terms of entities or properties which are deemed non-existent" (p. 16-17). Similarly, Craib (1992, p.656) suggests that "our methods of understanding the world and the forms of the theory we use are based on the nature of the realities we are trying to understand".

Given this argument, critical realism cannot support the indiscriminate use of theory since it strongly argues for an intimate linkage between all aspects of the research process. For example critical realism has important

37

things to say about the sort of questions that can be asked and the conclusions that can be reached. As detailed in Chapter 5 below, it argues against the predictive use of theory and suggests that retroductive questioning is the only supportable questioning that can be allowed in the open systems evident in social research. Such argument fundamentally affects the way in which research is progressed and the on-going role for theory within that research.

Critical realist argument suggests that philosophy must play an integral and ongoing role in all aspects of the research process and whilst the practical focus of critical realism encourages a concentration on outcomes the pluralist use of different methods needs to be consistent. This requirement has perhaps resulted in a more cautious use of methodology and theory than is ideal from a practitioner perspective and critical realism has been said to be "ontologically bold and epistemologically cautious" (Outhwaite 1987). This observation also reflects the fact that the philosophy provides little practical advice on methodology use.

The epistemological caution of critical realism

In my opinion this is a major failing of critical realism. If, as it claims, its continued use is dependent on the practical success of its use then I feel it has an obligation to be far more directed towards defining usable methodologies. As Stones (1996) argues, realist ontologies (such as those presented by Giddens and Bhaskar) do have important methodological consequences that need to be considered and developed. The use of critical realism within such a practically focused arena as Information Systems can only encourage this.

The Research Question in Critical Realism

Critical realism proposes retroductive argument where 'a retroductive argument moves from a description of some phenomenon to a description of something which produces it or is a condition for it' (Bhaskar 1986, p. 11). As detailed in Chapter 2 such argument is fundamental to a critical realist stance. Retroductive or abductive reasoning is in contrast to deductive and inductive reasoning.

Deductive reasoning is the fundamental reasoning of mathematics whereby some statement "p" leads to implications "q" – a movement from the general to the particular. For example, the *general* claim that "all ravens are black" moves to the *particular* inference that the next one seen will be black. Inductive reasoning moves from the particular to the general. For example the *particular* observation that numerous ravens are black moves to the *general* claim that "all ravens are black". Inductive reasoning is important in the experimental testing of theory in that "induction consists in starting from a theory, deducing from it predictions of phenomena, and observing those phenomena in order to see how nearly they agree with the theory (Blaikie 1993, p. 164). Positivist approaches are associated more with these two processes of reasoning.

For the ravens example, retroductive or abductive reasoning follows from an observation of numerous black ravens to a theory as to a mechanism to explain why ravens are disposed to be black. As Lawson (1997, p. 24) suggests it involves a movement from a surface phenomena to a deeper causal thing. Critical realism questions the usefulness of deductive or inductive reasoning in the open systems of the social arena and proposes that retroductive ("what if" type) reasoning is more appropriate. Such a perspective is consistent with a depth realism where explanation is not about

39

prediction but about the steady unearthing of deeper levels of structures and mechanisms.

Critical realism is not good for everything

> Such reasoning suggests that critical realism supports some lines of questioning but not others. Can the investigation of deeper levels of structure and mechanisms be the sole research focus available? What if we are not so interested in "why ravens are disposed to black?". I think the issue that critical realism is making is that we need to be careful with predictive claims and generalizations from particularities. These need to be supported carefully by further scientific research. Such a movement is still possible but it needs to be strongly supported and cautiously applied.

Critical realism assumes that all knowledge (or theory) is derived from a social practice that relies on pre-suppositions about the nature of the world. Bhaskar bases his philosophy of critical realism on such retroductive examination in that he questions what pre-conditions are necessary to allow the possibility of "science" and social "science". He considers that such retroductive argument is a distinctive and important feature that helped to define and differentiate critical realism (Norris 1999).

For the case example critical realism proposes the re-framing of descriptive ethnographic-type questioning such as "what is happening here?" to a more specific and retroductive questioning such as "under what conditions is it possible that an internationally benchmarked IT Department is outsourced?". Such focussed questioning concentrates on determining the nature of concerned structures and associated mechanisms and thus implicitly

targets extendability through its proposal that such structures are relatively enduring.

The Aims of the Thesis

The "bothering" with philosophy is a major concern within this thesis. A major aim, therefore, will be to present, from within the IS field, some of the practical outcomes of a philosophical commitment. This philosophical commitment is grounded by critical realism. The thesis introduces the philosophy of critical realism and uses its underlabouring role to provide new insights into the information systems arena in general. The thesis will examine some of the practical implications of using critical realism as an underlying philosophy for IS research.

Description or Explanation?

A secondary focus of the research is to describe and explain highly politicised changes that have taken place within the Information Systems Department of a governmental organisation. The thesis follows the development of the organization's first Information Business Plan and describes the subsequent outsourcing of the department's function. As suggested in subsequent chapters the primary focus is to provide an **explanation** of the happenings at the corporation rather than solely a **description**. This aim necessarily elevates the role of philosophical argument and rational thought.

The thesis will describe how the research approach came to be based on critical realism rather than interpretivism. This concentration on the research process is supported by Klein and Myers (1999), who argue that a major problem with many interpretive projects is their failure to clearly define the emergent nature of research. As they suggest in their important paper on principles for good interpretive practice: "we are [often] given little understanding of how the researchers' analysis developed over the course of

41

the project. As it stands, we are presented with a finished piece of interpretive research with few indications of its emergent nature" (p. 84). Whilst this thesis is not specifically interpretive such an issue is still valid and a major aim of the thesis is to indicate the emergent nature of the research process.

The Use of a Single Case Study

This thesis provides an illustrative case example involving the development of an organisation's first Information Business Plan and the subsequent outsourcing of the IS Department. The decision to use a case study is sometimes argued to imply a commitment to a particular methodological approach. For example, Yin (1994) argues that the case study is a comprehensive research *strategy* that can be qualitative or quantitative in focus and need not include direct, detailed observation as a source of evidence. He sees the case study as not "especially concerned with time-span and historical depth, with richness of data, or access to personal meanings, and shows no interest in emphasising data in people's own words" and defines a case study as:

> an empirical enquiry that investigates a contemporary phenomena within its real life context especially when the boundaries between phenomenon and context are not clearly evident (p. 13)

Stake (1994), in contrast, argues that the decision to complete a case study is not a methodological choice but a choice as to the object to be studied.

Tesch (1990) links the case study with hermeneutics in that case studies have traditionally involved an element of interpretation or reflection on the case under study. Walsham (1993) argues for the importance of so-called *in-depth case studies*. His view of the case study emphasises the need to understand human nature in context and argues that in-depth case studies are the only means to study such issues.

Knights (1996) points out that exhaustive case accounts can end up being very positivistic in their approach if deriving the truth of a situation is used to justify being exhaustive and in-depth. Such claims are positivistic in their nature as it implies that the "truth" is out there and can be found given suitably detailed analysis:

> ...if the case study approach is to avoid sliding back into positivist frameworks, it has to assert a role for itself other than the pursuit of accurate representations or exhaustive and comprehensive narratives. For otherwise, it simply subscribes to those ontological and epistemological assumptions about a 'fixed' and ' objective' reality waiting to be discovered and recorded by the researcher that were the impetus for a radical alternative to positivism in the first place. (p. 234)

Stones (1996) similarly argues for rich contextualized analysis but, in adopting a critical realist stance, appreciates the fallibist nature of any outcomes. He sees three ideal type contrasts in relation to the type of knowledge that particular theories contain:

- Single case versus multiple case (generalising)
- Contextualizing versus abstracted
- Agents conduct analysis versus theorist's pattern analysis

For example, he sees that a project emphasising agents conduct analysis would "include an interest in the hermeneutics of how social actors draw reflexively on their knowledgeability and motivation in choosing how to act", whereas theorist's pattern analysis defines "a research project that is not concerned with lay actors' conduct analysis but, rather, is interested in the researcher's analysis of social practices, from outside as it were" (Stones 1996, p. 70).

As detailed above in order to avoid the criticism of the post-modernist he suggests that contemporary realist researchers should adopt the first of each binary opposition as the preferred ontological focus in his brand of contemporary realism ("past-modern realism"). This so-called "player model" of theory construction is the preferred mode of operation whereby single contextualized cases are addressed "sometimes, but not always (depending on the question asked), including an analysis of the hermeneutic frames of meaning of social actors" (p.71). Under the player model studies move towards generalizations by "being parasitic on ... single, contextualized cases". This thesis agrees with Walsham (1993) and Stones (1996) on the importance of the local contextualized examination and follows Stake (1994) who sees the case study to be a selection of the object to be studied rather than a statement as to the method or strategy to be followed.

Confidentiality Issues

One of the difficulties for a researcher is that confidentiality becomes more difficult in pursuing a single case study since the researching of a single organization over many years means that the source of the research can become known to the research community of which they are a part. For the single case study it also is no longer possible to hide behind a multiplicity of case examples when presenting the thesis and thus it is particularly necessary to protect the identity of the organizational members interviewed. In order to meet the anonymity conditions under which access was provided the names and titles of the people interviewed have been changed and dates and statistics have been modified. The interview texts are shortened and have no dates associated with them so as to avoid possible association with real events. I feel this anonymity does not detract overly from the thesis as the thesis primarily uses the case example to illustrate and support theoretical arguments. Its primary focus is to illustrate a novel application of new theory.

44

This argument is consistent with Stake (1994) who describes two types of case study – the intrinsic case study and the instrumental case study. An intrinsic case study is:

> ...not undertaken primarily because the case represents other cases or because it illustrates a particular trait or problem, but because in all its particularity and ordinariness, [the] case itself is of interest...The purpose is not to come to understand some abstract concept or generic phenomena...The researcher temporarily subordinates other curiosities so that the case may reveal its story (p. 237).

In contrast, the instrumental study attempts to provide insight into an issue or refinement of theory. "The case is of secondary interest; it plays a supportive role, facilitating our understanding of something else." (Stake 1994, p. 237). This thesis uses the case example as an instrumental study. This statement of the purpose of the case study is important in terms of judging the research. As detailed in Chapter 4 this thesis suggests that the object and purpose of the research are important in judging the research outcomes. Ideally the case study write-up should present a full and rich description of the case example including detailed accounts of the organization and its members. This cannot be done under the conditions in which the study was agreed. An outsourcing situation is highly emotive for the personnel concerned and comments made about management and individual actors are often highly critical. Anonymity must be a necessary requirement in such situations as is care in research reporting - the organisation should not be harmed through its generosity in providing access. I have been conscious of this necessity throughout the study and have been careful in my reporting of the case, particularly in not acting in a judgmental role and protecting identities wherever possible.

Thesis Roadmap

The early chapters of the thesis (Chapter 1 to 6) aim to reflect my growing disillusionment with interpretive approaches and my acceptance of critical realism as a valid and useful underlabourer for investigation and research in the Information Systems field. The later chapters (Chapter 7 to 11) demonstrate the value of critical realism in the examination of contemporary issues within the management arena and the information systems field in particular.

Chapter 1 presents the basic details of the case study example and argues for the ineffectiveness of an ethnographic approach in identifying the important structures that heavily impacted the development of the plan and subsequent outsourcing within the organization. The case example is used throughout the thesis to highlight the value of a critical realist approach. (Chapter 7 and Chapter 8 in particular use critical realist argument to examine the outsourcing situation introduced in the case example).

As a basis for deriving an alternative to interpretive analysis Chapter 2 introduces the philosophy of critical realism and discusses some of its important assumptions. The important role that philosophy plays in research is highlighted and critical realism is presented as a response to the call for a greater philosophical commitment within the IS arena. The chapter discusses how the adoption of a critical realist approach affects the conduct of the research and the underlying research question.

In Chapter 3 the important meta-theoretical role for structure and agency within critical realism is highlighted and the importance of recognizing both micro (agency) **and** macro (structure) level factors within a research situation is discussed. The chapter discusses four conceptions of structure and

46

highlights how such perceptions can affect the way that a computer system can be represented. A hypothetical example of an ERP system is used to highlight the different conceptions of structure and agency. The inadequate representation of technology within critical realism is discussed and critiqued.

Following from this basic introduction to critical realism Chapter 4 discusses in more detail the differences between critical realism and interpretivism. Leaning heavily on Klein and Myers (1999) paper on principles for conducting and evaluating interpretive research the chapter highlights the different meanings given to interpretivism and discusses its philosophical base. As in Klein and Myers (1999) it is assumed that interpretivism depends heavily on hermeneutics as its underlying philosophy and, as such, the primary focus within the chapter is philosophical in that it uses the philosophy of critical realism as a basis for critiquing hermeneutic examination. Myers (1994) critical hermeneutic framework, which combines features of critical theory and hermeneutics, is presented as an alternative to critical realism. Finally, in order to highlight the differences between realist and relativist arguments, the chapter concludes with a discussion of the different criteria for judging research.

Chapter 5 compares the differing roles for theory within critical realism and interpretivism and presents some of its acknowledged shortcomings (based on Orlikowski and Baroudi 1991). For the realist the focus is ontological and explanation is the primary target whereas interpretivism is seen as residing in the transitive perceptual dimension thus emphasising description and illumination. The chapter discusses the methodological consequences of the underlying ontological richness within critical realism and relying heavily on Stones (1996) describes how critical realism requires contextualized single case study as its primary focus. Critical realism is seen as ontologically bold and epistemologically cautious (Outhwaite 1987) and as

such provides little real guidance with regard to epistemological development and methodology. The basic arguments of critical realism are used to critique a commonly used framework for defining IS research approaches (the framework being that of Galliers, 1991).

Chapter 6 highlights the important role that metaphor plays in critical realism and interpretivism and uses the case study to emphasise some practical examples of metaphor use. The chapter also provides some background to the theoretical basis for adopting an approach such as critical realism and highlights some of the confusion that ensued over the initial part of the study. Chapter 6 importantly provides a new role for metaphor within the information systems field in that it suggests that metaphor must play a vital role within critical realist examination since such examination often requires explanation of objects that may well be beyond our experience. Within this basic underlying stance metaphor can play a useful and important role in making the "unfamiliar familiar".

The remainder of the thesis provides practical examples of how a commitment to philosophical awareness has important practical consequences. Chapter 7 and Chapter 8 lean heavily on the case example to present outsourcing as innovative practice. It presents a knowledge-focused perspective based around diffusion theory to examine the outsourcing decision within the case example. Reference is made to Newell, Swan and Galliers (2000) who present an argument based around diffusion theory to explain the adoption and dissemination of BPR. They see the adoption of BPR as a consequence of distorted communication. In contrast critical realism would see the decision to adopt BPR as a consequence of largely external, social structures impacting internal agency decision. Such a perspective tends to divert the "blame" for bad decision-making away from concerned managers in that it argues for a clear recognition of the stresses under which they

operate. The thesis argues against the implied gullibility of managers assumed by such social constructivist theory and Chapter 7 modifies Abrahamson's (1991) original framework to make more explicit the structure/agency interactions implicitly assumed.

Chapter 8 builds on the argument developed in Chapter 7 to present a critical realist argument to explain the outsourcing decision detailed within the case example description in Chapter 1. In so doing it leans heavily on the discussion within Chapter 5 on the role of theory in critical realist examination and addresses the amended research question "what conditions make it possible for an internationally bench-marked IT Department to be outsourced?". Such questioning forms the basis for a critical realist examination which is explained by Stones (1996) as, making an informed guess as to what is doing the causing (retroduction), giving a clear and detailed definition of what this causal element is (real definition) and then showing clearly that it is indeed doing a significant amount of the causing (p. 37). The chapter demonstrates such an argument by firstly proposing that governmental imposition largely *caused* the outsourcing decision and then describing the underlying mechanism by which such imposition was carried out.

Chapter 9 provides another example of the insights that realist examination can provide by examining the development of the Information Business Plan at the Organization. Again it leans heavily on the theory discussion in Chapter 5 to ultimately question whether evolutionary models of IT Planning can be supported by contextualized examination of the case example under review.

Chapter 10 examines the important emancipatory effect within the organisation of changing the name of the change process from *BPR* to

49

outsourcing. This name change reflected a recognition by management that the process was ultimately an outsourcing project and not simply *corporate re-positioning, realignment* or *BPR.* This was important to the concerned personnel in that it allowed the initiation of termination services and counselling. The chapter discusses the differing perceptions within critical systems theory and critical realism of such emancipatory practice and highlights the different ontological focus provided by critical realism.

Chapter 11 further demonstrates the practical insights that critical realism can provide in its argument for SSM to provide a clearer recognition of the reality of social structures. It suggests a new framework for defining soft systems approaches based around whether the system purpose is aimed at transformation or interaction (see Mathiassen and Nielsen 2000). It argues that for systems where interaction is seen to be the primary metaphor a technique such as SAST could be incorporated to more clearly define the important social structures and stakeholder relationships.

Chapter 12 reviews the study and highlights the major contributions of the thesis.

Chapter 1

Introduction to the case example and the rationale behind the move to critical realism

Introduction

This first chapter introduces the case example – this case will be used throughout the thesis to illustrate the critical realist argument and to argue for the validity of critical realism as a useful tool for explaining the observed organizational happenings.

The case example for this thesis involves the study of an IT department in a government organisation undergoing major change in, firstly, the development and implementation of the organization's first Information Business Plan and, secondly, the outsourcing of the IT department. In the early 1990's the organisation had responsibility for the regulation, management and control of its own resources but this structure was changed dramatically as the organization split into a separate entities in the mid 1990's. This major change in corporate structure was associated with significant outsourcing of perceived non-core functions, the IS sector being one of the first and largest sectors to be outsourced.

The study was originally targeted at examining the implementation of the organisation's first information plan but this changed as the information business plan implementation was overtaken by events as political directives from above required that the organization move to outsourcing all non core activities, including the IS department. The IS Department at the time was a large IT employer and had a good reputation for efficient operation. Its

51

outsourcing was seen by the IS Manager at the time to be a test case for future governmental IT outsourcing.

This first chapter introduces the case example at an early stage to provide an understanding of the practical basis for the study. A deeper analysis of the case example will be left to later chapters 7, 8, 9 and 10. This analysis may involve the repetition of parts of this initial introduction. The main purpose behind this first chapter is to provide an understanding of the outsourcing operation and how the case example and the research process interact.

The case example

The thesis presents a case example involving major organisational change. The first major episode presented is seen to be the introduction of an organization's first Information Business Plan. For the traditional engineering focussed organisation on which this example is based, this represented a major episode in terms of the maturing of the IS function. In the view of the then IS Manager, it represented a major change in the organisation's historical view of IS in that it reflected the idea that IS was not purely a support function but had an important role in its own right.

The second major change episode is presented as the outsourcing of the IS function. This reflected a major turnaround in the organisation's view of IS in that the acceptance of the new Information Business Plan had held out so much promise to the IS people. The radical and severe change process led to the outsourcing of all IS functionality excepting that of planning and control. The change process was completed within a relatively short time span and caused considerable distress and conflict within the department and organisation. The thesis investigates the causes behind the radical change in

the organisation's view of IS and proposes that the change was largely a result of external pressure from government.

This first chapter provides the background to the case and describes the initial focus of the thesis as being to follow through the implementation of the organisation's first Information Business Plan. This initial focus was dramatically curtailed by the decision to outsource the IS Department in its entirety. The thesis moved from an examination of the development and implementation of the organisation's first information business plan to an examination of the outsourcing of the IS department.

This huge environmental change within the IS Department and the organisation also prompted a re-examination of the underlying research approach of interpretivism. It is argued that the initial ethnographic approach and the consequent concentration on the micro level aspects of the situation resulted in a neglect of the wider structures that eventually had such major effects on the implementation of the plan. The initial focus of the thesis was overtaken by events and led to the questioning of the research strategy employed. Whilst ethnography as a method allows a good understanding of the organizational situation, the interpretive focus at the analysis stage was unhelpful in recognizing the higher-level structures and mechanisms that ultimately became so important. As will be indicated in following chapters this inadequacy led to a re-examination of the underlying interpretivist philosophy and a search for a research approach that would more usefully explain what happened in the organization.

Reading over this explanation I see that it represents an example of analytical bias on my own part in that it represents the decision as simpler than in fact it was. Miles and Huberman (1994) suggest that three potential analytical biases can be introduced at various levels of a qualitative study:

Holistic fallacy — interpreting events as more patterned and congruent than they really are, lopping off the many loose ends of which social life is made

Elite bias — overweighting data from articulate well informed personnel, usually high status informants

Going native — loosing your perspective, being co-opted into the perceptions and explanations of local informants

Reading back over the above explanation of the change in research focus appears to me to be a reflection of holistic bias on my own part. The decision to move away from an ethnographic approach and interpretivism in general was not prompted by one particular event or condition but prompted by a range of events and situations such as:

1. The difficulty in getting access to the participants over the difficult and stressful outsourcing period made an ethnographic account difficult. Other less intensive interpretive approaches could have been used but the organizational situation initiated an investigation into alternate methods and philosophies. This investigation ultimately led to the adoption of critical realism as the underlying framework for the study.

2. My own struggle with creating (what I saw) as a believable interpretive voice and authority. As detailed in Chapter 5 I feel that authenticity and commitment are important requirements for producing believable research accounts. I found it very difficult to reflect at a personal level on the progress of the research. To be able to hold a story authentically requires a talent that I perhaps did not have.

3. My own background in rational science may have moved me towards more realist approaches. Having a degree in mathematics and physics perhaps prompted a sympathetic stance towards Bhasker's realist approach deriving as it does from a Philosophy of Science.

The movement towards critical realism was more fortuitous than a planned strategy in that my original interest in critical realism was prompted by reading an article by Alistair Mutch posted on the Internet(Critical Realism and Information Systems: An Exploration). This article encouraged me to read Bhaskar's (1978) Realist Theory of Science (which was also available on the Internet). I was impressed with the logic of the argument presented in this text and felt that the views expressed seemed to mesh with my own. These first readings, whilst difficult for me as I had no background in social science or philosophy, prompted me to research further and to join the Bhaskar listserver which I found interesting and useful although its lack of an applied focus was disappointing.

The decision to move away from interpretivism was not a consequence of a single event or structure it was a consequence of a number of factors both internal to me and external.

Such an argument as I have detailed above depends on the suggestion that "reasons can be causes". The fact that reasons can be causes has been used in the past to argue against the extension of the methods of the physical sciences to the social arena. For example, Phillips (1987) p. 105 suggests that the proposal that the methods of the sciences can be applied to the social sciences (this proposal is often called naturalism) can be argued against because "people act because they are swayed by reasons, or because they decide to follow rules, not because their actions are causally determined by forces. Thus when one person manages to persuade another to act in a certain way, what is going on is quite different from the situation that exists when one physical particle interacts causally with another". He suggests that thus the physical sciences cannot be a relevant model for the social sciences.

Critical realism has a wider interpretation of causation than is customary in traditional realist approaches in that it does not assume that all causes must be physical. Critical realism also recognizes a transitive knowledge oriented dimension and thus has no problem with accepting reasons as causes since as prominent critical realist practitioners Miles and Huberman (1994) suggest critical realism proposes that "things that are believed become real and can be inquired into. (p. 4)"

56

Data collection and analysis

The case study involved a longitudinal study of a large public
organization over a period of five years and coincided with the outsourcing of
the IS division. The ethnographic involvement in the initial pre-outsourcing
stage allowed a good appreciation of the organization and provided a basis
for continuing contact over the difficult period of outsourcing. Subsequent to
the outsourcing having been completed a number of senior IT staff (including
the outgoing Managing Director and the new post-outsourcing IS Planning
Manager) were interviewed individually on several occasions. The total
number of interviews over the period totalled some 50-60 interviews. The
interviews with senior staff were semi-structured interviews based around
pre-set questions whilst the interviews with junior staff were less formal.
Claims made by internal staff were corroborated in subsequent interviews
with consultants who played a large part in the outsourcing process.

The case study draws upon organisational reports and documents in
addition to the interview transcripts. The organisation made a number of
internal reports and staff newsletters available to me. These have been used
to corroborate the comments made in interviews. The interview transcripts
were analysed using the qualitative tool Atlas for key themes and the quotes
used are representative of these. Any issues concerning the interview data
will be raised in this thesis when the interview is quoted.

Comparing interpretive data collection and critical realist data collection

As the above discussion indicates this study did not originate as
specific critical realist study. This observation prompts the question as to
whether such a study would have been designed differently. It is my feeling
that the basic approach would be similar to that of an interpretive account in
that the aim of both would be to understand the research situation. The
difference might be, however, that whilst interpretivism encourages a focus

57

on understanding from the point of view of the participants/subjects, critical realism, in its focus on potential impacting structures, tends to be more directed away from the participants towards the examination of potential wider structures. The unearthing and explanation of such structures may well be beyond the capability and understanding of most of the actors involved and thus there needs to be an important additional focus **away** from the domain of the individual actors concerned. Flood (1999) addresses this issue when he discusses the difficulties in "knowing the unknowable". This argument is related to a similar discussion presented in Chapter 6 which discusses whether interpretive examination can get to the real issues when the ultimate aim of interpretive investigation is the understanding of participants in their own terms.

In the case example documented, the identification of the important governmental external structure would have been difficult if research interaction was only at the junior staff level. It was only in more senior interviews that it became clear that the government had such a strong influence. This was emphasised even more when it became evident that in order to ultimately identify the mechanism by which this influence was actioned the Managing Director of that time had to be questioned.

The recently announced annual conference of the International Association for Critical Realism (IACR) focuses on *Realism, research and practice* and clearly demonstrates that there are very few examples or guidelines for developing critical realist practice. Many of the proposed papers point out the imperative need for such clearer guidelines and exemplars. Given the fact that the use of critical realism is presented as being conditional on its successful use, this issue is of great importance if critical realism is to become more widely used.

The thesis example is primarily used as an illustrative example (see Stake (1994) above) to introduce critical realism and to demonstrate the logical method of critical realist argument (see Chapter 6 and 8). This target suggests a different emphasis than for what Stake (1994) terms as an intrinsic case study. The difficult nature of the organizational situation and the limited access provided due to the highly political nature of the change process prevented the complete depth of analysis that I desired, but I feel the case still has important things to say and is useful as an illustrative case. Any critical realist study must in my view spend a greater degree of time on philosophising and transcending material observations precisely because the approach depends very much on such examination. Social structures generally are observable only through their effects and thus there needs to be a process of abstraction from the domains of the actual and the empirical world to the trans-factual mechanisms of the real world. As Wad (2001) points out this is necessary since often the experienced world of events is not explainable in terms of the empirical facts, but only by way of incorporating non-experienced mechanisms incorporated in objects which may be within or outside the domain of investigation.

Initiation of the Study

The initial thesis proposal was to examine the evolution of the department's first IS plan. The IS Manager at the time supported my secondment to the business planning committee who were co-ordinating the development of the plan. The study therefore started as an ethnographic study of the development of the organisation's first information business plan. Three people -- Jim (the planning manager), Jane (planning assistant) and an outside consultant were working in this new business planning group. The planning group was located separately away from the IS department in rather crowded and cramped offices. This separation was intentional as the idea at the time was to get closer to other departments in the organisation. This separation from IS was important since, according to the IS Manager, the

organisation generally had little trust in the IS Department. This lack of trust was apparently a consequence of a process modelling exercise that was sponsored by IS and engendered the perception that IS was trying to break into other organizational areas.

Jim proved to be my major contact and was generally co-operative, although sometimes negative towards my research. He was himself completing an MBA at UWA. I got the initial impression that they did not really know what to do with me as I was given a desk and phone some distance away from the planning section and left alone to read the various plans and strategies formulated by the organization. This research experience is clearly not unique and is similarly reflected in a study by Urquhart (1999)

> On beginning the study, I was given office space within one of the smaller units within the branch. I had a desk and a broken down computer which was to be fixed for me (two months later). I sat at the entrance to the office so everyone who came in passed me. I was never introduced to anyone in the office on my arrival and no one ever introduced themselves to me! I was immediately the outsider...I found it difficult to deal with the often ambivalent and sometimes rude behaviour I experienced towards me. This came in the form of casual comments like: Are you still here? (p. 197)

Whilst staff were never rude to me they were often offhand – the experiences documented by Urquhart are very familiar to me.

Typification as an academic

In my view, my initial introduction to the organization was an unfortunate example of typification in that the organisational personnel saw me as an "academic", with all of the associated biases that business people seem to have concerning the "academic". It would have been preferable, I think,

if I had entered the organization as a consultant. Schutz (1963, 1972) argues that we build our knowledge of the social world through "a process of 'typification', which involves building up classes of experience through similarity. From an interpretivist perspective, for all practical purposes these meaning contexts become the world itself. As will be detailed in later chapters, the critical realist would see the assumption that such meaning contexts become the "world itself" as an example of the epistemic fallacy in that it confuses statements about the transitive knowledge focused dimension and the intransitive real dimension. Critical realism can appropriate the interpretivist concept of typification but only if it is applied from a weak constructivist perspective that assumes such typification is about our knowledge of the world not the world itself.

The Information Business Plan

When I joined the planning group they had recently completed their major task which was to get together the first draft of the new Information Business Plan. The Information Business Plan was to be the first such plan for the organization and it needed to be completed under a very tight schedule. The plan was largely formulated along the same lines as the other internal business plans (respectively covering money, assets and people). The plan was a part of a detailed planning process that involved planning across corporate, business and branch level. The information business plan was ultimately directed by the strategic plan which had a 10 year focus. Business plans were developed for the 9 main business areas (these included money, assets, people and information) and had a planning horizon of 5 years. Branch planning was also completed based on a 2 year planning horizon.

Consolidated business planning and consolidated operational planning
ensured the alignment between the various plans.

One of the consultants that I interviewed commented that the
organization were "great planners but poor doers". I raised this comment with
the new Planning Manager who made the valid observation that many of the
services that were outsourced were in fact quite marginal from a
comparative costing point of view which indicated that the organization was
in fact operating competitively.

The first section of the information business plan detailed how
information services fits within the overall organization and saw their main
focus as information provision to their internal and external customers. The
second section described the purpose of the plan and emphasised strongly
the cross functional role of the plan. The third section described the business
environment and emphasised the turbulent environment within which the
plan operated. Interestingly the plan listed the planned corporatization as one
of the uncertainties that might affect its operation in the near term. The
fourth section described the vision for information services, defining a vision
statement for each of the major stakeholders in the plan. The fifth section
then detailed what needed to be done to operate the information business
emphasising the existing silo based arrangement under which the
organization operated. The final section of the plan concluding with a set of
initiatives that needed to be addressed in order to meet the vision for
information services. It is interesting to examine the state of IT architecture
at the time.

The organisation at the time had a large backlog of applications that needed to be completed and the functional departments were continually handling "a great wad of little requests coming in from all over the place which we couldn't satisfy - we weren't fleet of foot enough in systems development" (IS Manager). The application backkog was largely being addressed within functional areas by people doing their own coding and creating their own applications. The IT department saw the organisational IT system as being largely made up of a number of private information systems being independently run by the respective departments. An internal document presents a view of the IT architecture at the time. Up to the mid 1980's the basic architecture of the authority was as represented in Figure 1.
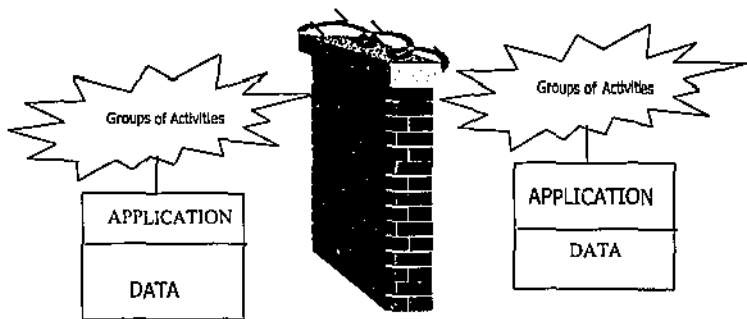
Figure 1: The early IT architecture

The IT branch supported groups of activities with each application holding its own local data which was integral to the application and belonged to the application and to the owner of the groups of activites. The organizational culture was very much vertically oriented in that the owner of

the group of activities also owned the application and data. The owners did not consider it appropriate to share data between applications.

In the mid 1980's the authority decided to migrate all it's applications to the DB2 relational database. This adoption of DB2 helped to break down the wall between the various owners of applications but, as detailed in Figure 2, there was still a degree of division between the various branches. The organisational culture still saw ownership as comprising of groups of activities, applications and data.
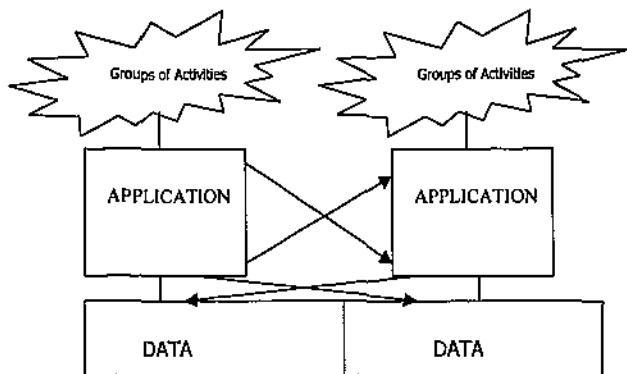
Figure 2: IT architecture early 1990's

The IT department was very proficient at sharing data between applications and had had a number of successes at getting applications to communicate with other applications. This data integration and systems integration was expected to continue under the DB2 environment. However this increasing systems integration was leading to a number of problems in the management of application changes. The *owner* of an application may

change an aspect of *their* application without reference to the other applications that call them, thus resulting in potential problems for the calling application. Change management was becoming an issue. Another potential problem was also becoming evident in that individual business *process owners* were developing their own pc applications to interface with various corporate applications.

The IT Vision

The IS Manager at the time was interested in soft systems approaches to organisational issues and also saw a role for using an object oriented approach to systems development. The idea behind developing a collection of organisational process models was to develop an object oriented view of the organisation:

> It was covert - the IT requirement [for process models]; what I intended to do was to follow through [their soft systems consultant's] methodology, take the documented processes, put them through some form of object oriented methodology and turn the handle and at the end, systems would drop out.

The IS Manager recognised that this view was still very much "pie-in-the-sky" however there were organisations who were doing work in the area and there was some hope to move in this direction. As the IS Manager continues:

> I took an awful lot of flack from my staff, that this would never happen; they were basically engrained COBOL programmers who were using the waterfall methodology and this idea of taking an object oriented approach from a process model was seen as just crazy, but I had a couple of champions in systems development. I had the data administrator and a couple of the seniority planners, they really liked the concept and they were reading the same sort of literature as I was. They said it's not going to happen, but [I could see that] if the organisation continues down this process modelling route there's going to be such a wealth of information in those process models that we can use to develop our systems.

65

In fact the IS Manager pre-judged the movement towards implementation of a package approach to systems development in his suggestion that:

> ...some of the vendors then were starting to provide a process model view of what their package needed ... and we could see how do we could change our processes to actually just buy this package, rather than build the package from scratch. So we weren't looking at this massive R&D episode of building systems to specifically meet all the information requirements of these processes, it was rather "what's out there?" "What's the best match?" That was one thing that we didn't sell too well, that it wasn't some huge process model and you can't simply turn the handle in those days to produce the systems. It's rather more of "this is the best we've got, buy the package outside, how far away is your process, what damage and harm is it going to do to you if you change the processes slightly".

In hindsight this suggestion was very forward thinking and pre-empted the move to an ERP system by some 5 years. The concentration on process was a fundamental to the whole planning approach and represented a modern approach at the time.

Problems with the Information Business Plan

The information business plan had to fit into the same guidelines used for the other business plans which was difficult given its cross-functional focus. At the time my impression of the approach to planning was that it seemed very mechanical and formal. At the time the plan was being drawn up organization was very much an engineering organisation and the IS department was seen as a service function. The IS Planning Manager post outsourcing describes how the implementation of the plan was doomed from the start:

The organization in those days saw IT as a necessary evil.

They were focused on one of two things, engineering or financial considerations and IT was something they had to have, but they didn't really want to spend any money on it and all the money they had spent, was too much - where was the return on the investment - that was the continual question. Therefore the setting up of a massive information systems plan was probably at that time simply impossible.

The plan basically treated the Information function as a business - the concept growing out of the model whereby service departments were to be treated as cost centres in their own right, thus giving them the ability to charge other parts of the organisation for services. The new planning manager after the outsourcing commented on the idea of treating the information business as a business in its own right:

Tied in with the Information Business Plan was one of the least successful things the organisation tried and that was the concept of commercial service units, which required the internal commercialisation of a number of units. The IT branch was a commercial service unit and the thrust of this was that the unit had to operate as if it was a commercial entity and had to attract work from within the organization. This work was paid for and would in turn pay the salary of the people involved.

I personally saw this as a very destructive experiment - it was artificial and built unnecessary internal competition, destroying synergistic opportunities. I had a major problem with it.

Because of that experiment it was seen as being very commercial and business like to treat IT that way, the plan was very much tied to this concept. It was ultimately seen as being a nonsense, calling the plan a business plan was tested and was not accepted in the end - Information Provision was non core.

This quote can be seen to reflect a holistic bias in that it presents historical events as more patterned and congruent than perhaps they were. The Information Business Plan failed for a number of reasons not purely the fact that the cost centre idea did not work.

The move to outsourcing

Soon after the development of the Information Business Plan the organisation began to move towards outsourcing non-core operations and the planning team was directed towards investigating the feasibility of outsourcing non-core processes, including IT. As will be documented in chapter 7 and 8 below this outsourcing move represented a turnaround for the IS Department in that they were on a high after having received approval to implement the recommendations of the Information business plan.

The outsourcing strategy was based around concentrating on "those things we need to do to manage effectively". The organization was moving towards corporatization which involved a separation between "managing and doing". The focus in outsourcing IT was to maintain control of the planning and management but outsource the actual operation. The scope of the outsourcing included the transfer to the outsourcing party of mainframe and server support, communications, end user support and systems development. Prior to outsourcing the IS Department supported over 100 applications from the various functional departments. Its operating budget was over $10m and maintained 130 staff. The infrastructure involved around 2000 PC's in 78 locations along with mainframe and database servers. All of this functionality was outsourced.

Information Planning, which involved corporate information strategy formulation and architecture planning, was kept within the new organization along with special Information projects and information services such as contract management and library and records management. The period immediately prior to outsourcing was a difficult time for the organization (see Chapter 10) but, according to a management analysis, generally, the outsourcing met with the business case on which it was based and more than 65% of staff chose to transfer to the outsourcing party.

68

At this stage my thesis had to change focus radically as it became evident that the Information Business Plan was no longer a major focus within the organisation. From the time that outsourcing became an option my access to staff became more difficult and with the decrease in staff morale their commitment to my project decreased. At that stage I had a major decision to make as to whether I should abandon the project and thus so advise the organisation and my supervisors. Yet I felt the case was an interesting rich case and I could not see that I would be damaging the organisation if I continued the study.

Prasad (1997) discusses some of the ethical difficulties in field examination of social situations and suggests that hard and fast rules on ethical issues are difficult to make – each situation being unique. In my own case I made the decision that an ethnographic involvement was not possible over the period of the outsourcing. The atmosphere was too politically charged and morale was low as employees became concerned about their futures. The purpose behind the study was still to examine the changes in IS within the organisation and as such I felt that the study could still continue but with a lower level of "immersion". The IT staff did not restrict my access to their department over the period prior to outsourcing and my interviews continued over this difficult period of change.

> So-called "critical" field research must be even more difficult to initiate and progress given that the ultimate target of many critical studies is to unearth inequitable structures and mechanisms in order to emancipate. The target of my study was not to change the organisation but to understand and explain the situation. As will be detailed in Chapter 10 below this focus can still provide emancipatory benefit in that identification of inequitable structures is seen as a major step in their dismantlement.

Conclusions

The implementation of the Information Business Plan was overtaken by events. As will be detailed in later chapters a high level governmental decision to outsource non-core activities came to dominate the strategic direction of the organisation. This reflected a world-wide trend towards smaller government and outsourcing in general. The issue from a research-based perspective was that the higher-level "macro" issues were not recognised in my early analysis.

The original research approach adopted was based around ethnography and interpretivism and as such there was no real basis for the identification and recognition of macro level influences, yet, as will be detailed in later chapters, macro level forces can be seen to have fundamentally affected the plan implementation. Basically, according to the new planning manager, the plan was sidelined in the new organizational structure and came to be considered as a minor and relatively unimportant document, useful mainly for its historical value.

<u>Characteristics of Ethnography</u>

Prasad (1997) suggests that ethnography is not an easy methodology to practice in that it demands considerable rigour in terms of data collection. He also suggests that "few pay sufficient attention to the theoretical orientation it demands or the complex issues it raises in the process of writing and researching". Ethnography has an interpretivist and anthropological tradition with its emic focus on local interpretations and grasping the native point of view. Ethnographers "try to understand any situation based on the meanings that it holds for relevant social actors" (Prasad 1997, p. 106).

The original methodology for the thesis example was ethnographic in focus and as such heavily dependent on interpretivism. This interpretive basis is recognized in the assumption that ethnography must incorporate three important elements - thick description, a focus on cultural context, and immersion and connection (Prasad 1997). Thick description refers to the need to represent multiple perspectives on a social situation - reflecting those of the weak and marginalised as well as those of the strong and powerful. The cultural focus of ethnography requires an emphasis on the cultural context within which the researched situation takes place. Culture is seen to shape the interpretation that participants give to social situations. Ethnographies aim to derive these *emic* perceptions and intentions. Immersion in the social situation and a close connectivity with the participants are therefore a necessary part of any ethnographic study.

An example of the theoretical contrast between a critical realist ethnography and an interpretive ethnography is the differing perceptions of the role for the "strong and powerful". In a critical realist examination I found that the opinions and views of the powerful (eg the past Managing Director) were crucial in identifying and defining the impacting macro-level structures.

Staff at a lower level in the organization did not have the knowledge to be able to identify and explain the mechanisms by which such structures worked. An ethnographic study based around critical realism must perhaps weight the opinions of the powerful more than for an interpretivist study.

Critical realist ethnography and critical ethnography

Prasad (1997) makes the distinction between realist qualitative fieldwork and interpretive qualitative fieldwork, ethnography being heavily linked with the latter. He uses a somewhat old-fashioned (or what Hammersley (1992) would call naïve) version of realism when he suggests that realist ethnography makes the assumption that prolonged detached observation will eventually develop an accurate picture of reality. More contemporary versions of realism recognize the complexity of social reality and disagree with the phenomenological target for ethnography which is seen to led to a superficiality in research, as critical realist practitioner Porter (1993) points out:

> Exclusive concentration on, and uncritical acceptance of, subjects' own accounts is the Achilles heel of phenomenological ethnography. It is the reductio ad absurdum of the valid hermeneutical point that the social world cannot be fully understood without taking account of the interpretations of the social actors in it. Understanding actors' viewpoints may be a necessary condition for social knowledge, but it is not a sufficient one. The ontological assumption that individual interactions and interpretations are ultimately all there are, leads to analytic superficiality.

Porter argues for a greater recognition of the role of social structures and suggests that the adoption of an ethnography that addresses both micro and macro level factors. He suggests that this would help to address the criticism that the ethnographic concentration on the local and situational can

led to a superficiality in analysis. He sees the purpose of ethnographic investigation within a critical realist frame as to unearth likely structures and to examine their interaction with concerned agents.

Myers (1997b) similarly calls for a critical ethnography that more clearly acknowledges the role of social structures. As will be discussed in Chapter 4 below, in contrast to a critical realist ethnography, Myers bases his ethnography around critical hermeneutics. Whilst both approaches suggest a greater role for social structures they have differing conceptions of what a *structure* in fact means, the critical realist providing a more concrete real intransitive component to structures in general. Myers' critical ethnography is far closer to interpretivist ethnography in that it "does not stand in opposition to other forms of ethnographic research. Rather, it is a type of reflection about the relationships among knowledge, culture, society and action" (Myers 1997b, p. 283). In line with the pure hermeneutics on which it is based critical ethnography attempts to reflect more clearly the researchers socio-historical position.

An ethnography based on critical realism would need to reflect the underlying social objects envisioned within critical realism as well as the logical analysis process required of the framework (see Chapter 5). Critical realism has a commitment to integrating philosophical issues into the research process and thus philosophy must play a greater guiding role in the analysis process. As indicated above, there are very few guidelines as yet concerning critical realist practice. The following chapters will help to address this issue by introducing the philosophy of critical realism and then presenting some of the insights that the philosophy can offer.

73

Chapter 2

The Philosophy of Critical Realism

Kuhn (1970, p. 121) "though the world does not change with a change of paradigm, the scientist afterward works in a different world"

Bhaskar (1991, p. 10) "Though the (natural (or object)) world does not change with the change of paradigm, the scientist afterward works in a different (social (or cognitive)) world"

Introduction

Critical or transcendental realism is a relatively new philosophical approach which adopts a critical stance towards positivism and hermeneutics and attempts to integrate strong points from each. As is indicated in Bhaskar's rephrasing of Kuhn's (1970) quote above it argues that there exists a reality totally independent of our representations of it; the reality and the "representation of reality" operating in different domains – roughly a social, historical and transitive epistemological dimension and a natural, (relatively) enduring, intransitive ontological dimension. Bhaskar sees this as an important and influential aspect of critical realism as he points out in a recent interview:

> This means that there is no conflict between seeing our scientific views as being about objectively given real worlds, and understanding our beliefs about them as subject to all kinds of historical and other determinations. (Norris, 1999)

Kuhn's quotation is an example of what Bhaskar terms the epistemic fallacy. In Bhaskar's view Kuhn's statement is incorrect in that it confuses statements about two different worlds – an intransitive world that is natural

and (relatively) unchanging and a transitive world that is social and historical. Once this recognition is made Bhaskar suggests the re-phrasing of Kuhn's statement in an unremarkable and non-paradoxical manner: "Though the (natural (or object)) world does not change with the change of paradigm, the scientist afterward works in a different (social (or cognitive)) world". The above re-phrasing acknowledges the presence of a deep or real element to the world along with an empirical, perception based world. In so doing it avoids the so-called epistemic fallacy by recognizing the difference between statements about the knowledge domain and statements about the ontological domain. Bhaskar argues that this fallacy is a fundamental error of much of postmodernist work.

The real, the actual and the empirical

Bhaskar (1975, p. 12) proposes the existence of the *real*, the *actual* and the *empirical*:

> ...real structures exist independently of and are often out of phase with the actual patterns of events. Indeed it is only because of the latter that we need to perform experiments and only because of the former that we can make sense of our performances of them. Similarly it can be shown to be a condition of the intelligibility of perception that events occur independently of experiences. And experiences are often (epistemically speaking) 'out of phase' with events - e.g. when they are misidentified. It is partly because of this possibility that the scientist needs a scientific education or training. Thus I will argue that what I will call the domains of the real, the actual and the empirical are distinct.

Reality is thus made up of these three ontologically distinct realms — the empirical, that is experience; the actual, that is events (i.e. the actual objects of experience); and the non-actual or deep, that is structures, mechanisms and associated powers. It is argued that the existence of any (observed) event is defined in terms of the multiple effects which constitute

it, that is, in terms of the internal and external relations which are the essence of the event:

> ...according to this account,...the world is composed not only of events and our experience or impression of them, but also of (irreducible) structures and mechanisms, powers and tendencies, etc. that, although not directly observable, nevertheless underlie actual events that we experience and govern or produce them (Lawson, 1997, p. 8).

Structure can thus be defined as an internal network of social relations that provide a capability or ability to facilitate various activities. These powers that structures possess may or may not be exercised. A mechanism is basically a way of acting or working of a structured thing. Thus "structured things, then, possess causal powers which, when triggered or released, act as generative mechanisms to determine the actual phenomena of the world" (Lawson, 1997, p. 21).

Critical theory, post-modernism and critical realism

Bhaskar places critical realism within contemporary philosophy alongside post-modernism and critical theory as a particular response to the crisis of positivism. In a similar fashion Orlikowski and Baroudi (1991) classify IS research traditions as basically following three major philosophical approaches – positivist, interpretive and critical, the interpretive and the critical responding to shortcomings in the positivist. In its neglect of contemporary realist approaches such a division reflects a commonly held view equating realism with positivism.

Comparing critical theory and critical realism

This thesis largely compares interpretivism/hermeneutics and critical realism rather than addressing critical theory. Chapter 10 does, however, provide an example from the case to demonstrate different perceptions of

76

emancipation within both philosophies. The chapter highlights the important practical role of language and description in promoting real change and suggests that the ontological focus of critical realism allows a clearer specification of the conditions necessary for that change.

Outhwaite (1987) sees Habermas's critical theory and critical realism as not being entirely in opposition, having similar emancipatory targets and the common belief that all science has a critical dimension. Bhaskar critiques both critical theory and interpretivism for residing solely within the transitive knowledge focussed domain and thus sharing a common neglect of the ontological. Outhwaite (1987, p. 91) suggests Habermas may view Bhaskar's notion of emancipation as generally impoverished and lacking the richness of critical theory.

Empirical realism, external realism and critical realism

External realism, or the suggestion that the world itself is independent of our knowledge of it, is an important part of critical realism and has significant ramifications with respect to theory use. Bhaskar (1978) suggests that critical realism should not be confused with empirical realism which identifies the real with the empirical. That is, it equates the real "with what we can experience, as if the world just happened to correspond to the range of our senses and to be identical to what we experience" (Sayer 2000, p. 11). Bhaskar (1978) argues that for scientific experimentation to make sense in its attempt at closure, the real objects of science, structures and mechanisms, in fact must act independently of the pattern of events that they govern.

Bunge (1993, p. 229) argues that "Philosophical realism, or objectivism, is the view that the external world exists independently of our sense and experience, ideation, and volition, and that it can be known. The first conjunct is an ontological thesis while the second is an epistemological one. It is possible to assert the former while denying the latter. That is, one may hold that material (natural or social) objects exist externally to us but cannot be known except by their appearances. Or one can hold that the world is intelligible because we construct it ourselves, much as we construct myths and mathematical theories" (as quoted in Weber, 1997, p. 174). This equating of realism with objectivism is unfortunate in that there are versions of realism which recognise the subjectivity or social nature of knowledge acquisition. Such a brand of realism is that proposed by Bhaskar (1978, p. 25):

> [Critical realism] regards the objects of knowledge as the structures and mechanisms that generate phenomena; and the knowledge as produced in the social activity of science. These objects are neither phenomena (empiricism) nor human constructs imposed upon the phenomena (idealism), but real structures which endure and operate independently of our knowledge, our experience and the conditions which allow us access to them.

This so-called depth realism is in contrast to other shallower forms of realism, such as *actualism* which asserts the reality of things and events but denies the existence of underlying structures which affect the events – cause and effect being determined at the level of events: every time A happens, B happened (Collier, 1994 p. 7). Actualism asserts that we can only know what we observe (this is termed by Bhaskar as the epistemic fallacy). Within this brand of realism events are the primary object of investigation rather than the underlying enduring deep structures and mechanisms proposed within critical realism.

The importance of philosophical reflection in IS research

As detailed in the introduction above, philosophy can be defined as "the critical examination of the grounds for fundamental beliefs and an analysis of the basic concepts employed in the expression of such beliefs" (Macropedia Encyclopaedia Britannica, 1985). Such a perspective corresponds well with calls from within the IS arena for a greater philosophical awareness. For example, Garcia and Quek (1997, p. 444) discuss the importance of examining the philosophical underpinnings of research methods - they feel "that the starting point of a researcher's methodological choice within information systems is not so much a problem of how many methods we employ or if those are of a quantitative or a qualitative nature, but the ability to identify the philosophical and theoretical assumptions which led to the choice of the appropriate methodology". They propose that the researcher can only achieve a coherence over the whole research process by identifying the underlying philosophical assumptions behind the use of a particular methodological approach.

Garcia and Quek (1997) call for a greater critical awareness of the underlying assumptions implied by the use of particular theories in the IS field. They argue that the relative immaturity of the Information Systems field has led to the borrowing of a number of theoretical approaches and methods from other subject areas, often with little regard for the associated baggage of underlying assumptions. Information systems (IS) research is an applied field in that it is heavily o,iented towards the application of information systems in business. They suggest that this has tended research in the area to have a greater concentration on the outcomes and practical or methodological issues rather than the ontological and philosophical reasoning behind a particular research approach.

Similarly Westrup (1996) argues that the newness of information systems as a field has necessitated the borrowing of various theories from other areas. He suggests however that many applications of novel organisational theories to IS Development have neglected to consider the assumptions underlying such use:

> An orthodoxy in organisational theory does not exist and many competing forms of theory are to be found that vary from abstruse formulations deriving in part from philosophical considerations to more pragmatic varieties of analysis. Anyone seeking to apply different forms of organisational theory to IS development faces an immediate difficulty in determining which theory to use followed by the still more difficult problem of how to package that theory in the form of practical technique. (p. 163)

Westrup suggests that this lack of concern for the origins of IS practice has, in fact, been useful in allowing IS practitioners to concentrate on the more important practicalities of systems development.

The death of the object in relativist argument

As Sayer (2000), p. 36 suggests "the elimination of the referent – the death of the object – is...consistent with the turn to discourse and away from the materialism". This neglect of the object can be seen to be a by-product of approaches that emphasise the social construction of reality

Nissen, Klein and Hirschheim (1991, p. 4) call for a greater recognition of the research **object**, rather than research methods or environment and suggest that the debate regarding research approaches should centre around two basic issues:

(i) the nature of what is investigated (ontology)

(ii) the nature of human knowledge and understanding that can possibly be acquired through different types of research and the appropriateness of the methods of investigation (epistemology)

80

Such a division is usefully presented within critical realism with its argument for a transitive epistemological domain and an intransitive ontological domain.

Developing these arguments Kuutti (1996) suggests that in a research situation a fundamental consideration needs to be given to the *object* under investigation, rather than the method used to investigate it. He suggests that the blind acceptance of a particular methodological approach inevitably ends up defining the object to be studied. Kuuti (p. 190) argues that this lack of concentration on the research object resulted in the IS community being out-trumped by the "BPR" phenomena. He feels that the IS community, at the time, was attempting to understand the world in terms of "social systems" and "organisation" and by so doing neglected the specificity required to recognise the importance of a new organisational form called a "business process". He suggests that if a greater concentration had been given to the **object** under investigation rather than the methods used to investigate it, this may have been avoided.

Kuutti is clearly struggling with the distinction between the transitive epistemological dimension and the intransitive ontological dimension. An acknowledgement of the difference would make his argument much clearer. BPR was very much a fad in the early 1990's but it was founded on the (supposedly) new concept of the business process. The BPR fad would reside within the transitive knowledge focussed dimension whereas the business process is an ontological object. I doubt, however, whether critical realism, even with its recognition of a separate intransitive reality, would have provided Kuutti's required recognition of the importance of the business process.

The suggestion by Kuutti to place a greater emphasis on the "object" can be seen to be a call for more realist approaches. In arguing for a greater consideration of the object he is suggesting that the object of the study **can** be separated from the approach and view of the researcher. This suggestion identifies his philosophical origins in that such separation is not possible from within an interpretivist philosophy. Realism places a greater emphasis on ontological issues rather than epistemological and would provide the needed emphasis on the "object" to be studied.

In a related fashion to Kuutti, Silverman (1998) discusses the tendency for some qualitative studies to be "fundamentally concerned with the environment around the phenomenon rather then the phenomenon itself" (p. 11). An example of a study of new technology is given:

> [In] qualitative studies of people's "subjective" orientations (for example how people report that they "experience" new technologies), we may be deflected away from the phenomenon of how people actually interact with these new technologies. Instead we are inexorably deflected towards what follows and precedes it (causes and consequences in the "objectivist" approach) or how people respond to it (the "subjectivist" approach). (p.11)

For Silverman clearly he is equating an interest in causes and consequences with an "objectivist" approach. But what does he mean by objectivist? As Sayer (2000) suggests there are three important and distinctive meanings for *objective*:

- [Type 1] Value-neutral
- [Type 2] True (or in critical realist terms practically adequate)

- [Type 3] Pertaining to Objects - as distinct from subjects and refers to the nature of things regardless of what we or others may think about them

Silverman is perhaps referring to all three when he terms an approach "objectivist", but, as Sayer (2000) suggests, statement about objectivity need to be carefully made. Objectivity [Type 1] and Objectivity [Type 2] are often conflated in that often it is assumed that if we wish to arrive at an objective [Type 2] statement about the world then those statements need to be to be value neutral [Type 1 objectivity]. Yet having strong values about something need not necessarily distort conclusions if they are properly allowed for. Similarly as Sayer (2000, p. 60) suggests "to claim that objects can have qualities which exist independently of our consciousness of them [Type 3 Objectivity] is not to claim privileged access to them [Type 2 Objectivity], in the sense of truth". He suggests that the target for research is not the determination of an "objective" truth but the achievement of the best we can do at the time ie, "practically adequate" explanations. This practical focus within critical realism sees knowledge as existing in a "historically specific, symbolically mediated and expressed, practice-dependent form" (Lawson 1997) that is potentially transformable as subsequent deeper knowledge is gained. "Objectivist" approaches have traditionally been equated with positivist approaches founded on an ontological realism. The newer contemporary realist approaches such as critical realism argues against this and suggests that realism is not what people think.

In a similar manner to Silverman's division of subjective and objective approaches, Monteiro and Hanseth (1996) argue that IS research articles have tended to be less than specific regarding the details of the technology being investigated. They argue that to advance understanding of the interplay between IT and organisational change there is a need to be as concrete as possible regarding the detail of which aspects of the technology actually hinder or enable organisational change. Critical realism can help to address

83

this shortcoming in that it encourages a greater concentration on the research "object".

Garcia and Quek (1997) argue it is important to address both the objective and subjective side of an information system. They point out the difficulties in defining the actual object of information systems research - 'Is the object of research in information systems of a technological or social nature? Is it the organization, an information system or a social system?' (p. 450).

Probert (1997) argues that Information Systems do have objective, touchable realities and he disputes the 'facile tendency to treat information systems as, by and large, subjective constructs' (p. 48). He suggests that the 'constant lurching between the (supposed) binary opposites of subjectivism and objectivism' is not useful. 'Information systems are not purely subjective constructs - they have objective features such as processors, storage media, etc.' (p. 49).

Bhaskar's critical realist philosophy provides an opportunity to avoid this all or nothing approach by developing a philosophy grounded on a recognition of both the subjective and objective domain. As Bhaskar points out in a recent interview:

> This means that there is no conflict between seeing our scientific views as being about objectively given real worlds, and understanding our beliefs about them as subject to all kinds of historical and other determinations. (Norris, 1999)

Philosophy as underlabourer

Critical realism also provides a fundamental and important role for philosophy within research. This is in contrast to Ormerod (1997) who

84

dismisses the role of philosophy in practical research when he discusses organisational intervention from an operational research perspective:

> Any choice mechanism should, in my view, be rooted in practical requirements rather than in theoretical considerations with which very few practitioners could feel at home. In simple terms the approach (methods and their theories) chosen must support a process of intervention (practice) in a particular context to achieve the desired outcome. (p. 421)

> ...If a philosophical justification for action is needed it can be found in American pragmatism, Bhaskar's transcendental realism, Feyerabend's iconoclastic critique of philosophical positions or postmodernism (p. 421)

This approach is not an uncommon "consultancy" type approach to research - practicality dominating the researcher perspective. Theory application is directed towards successful practical intervention, as demonstrated by Ormerod (1997) who argues for a practical and pluralist approach: "the choice of methods will depend on the organisational context, the degree of participation envisaged, the consultant's skill and on the nature of the outcome required" (p. 415).

Ormerod's view of the role of philosophy neglects the useful role that philosophy can play as "underlabourer" to research and practice - the term underlabouring taken from Locke (1894, p. 14) as "clearing the ground a little...removing some of the rubbish that lies in the way of knowledge". Bhaskar's philosophy of critical (or transcendental) realism is presented as a useful underlabourer to research and practice. It suggests that philosophy play an integral and important role in research and practice, its continued role being contingent on the ultimate success of the resultant research or practice. An important qualification is provided, however, by Lawson (1997, p. 60) who suggests that:

> [whilst] critical realism has been shown to carry the potential to

85

intervene, actively and practically, in the practices of science, it cannot do the job of science. If philosophical analysis ... reveals the need for scientists to uncover structures that govern phenomena of interest, it cannot do that job of uncovering. It can 'underlabour' for science in clearing up inconsistencies and confusions, and it can act as 'midwife' in helping new sciences to emerge. But that is as far as it goes.

Critical realism argues strongly for a recognition of the intimate relationship between philosophy and methodology and sees philosophical issues as operating at the same level as methodological issues. The continued success of a philosophy is considered by Bhaskar (1978) to be dependent on its success as "underlabourer and occasional midwife" to the research process.

Why Bother with Philosophy?

Bhaskar's critical realism elevates the role of philosophy and suggests that it must play an integral role in research. This is in contrast to Rorty (1979) who from a postmodernist perspective argues for secondary role for philosophy in providing it an "enlightening" role, seeing it as useful "to keep the conversation going rather than to find an objective truth". This minor bit part role for philosophy is in stark contrast to Bhaskar's view who suggests that philosophy play an integral and important active role in social investigation; its continuing role being contingent on the ultimate success of the resultant research or practice. Bhaskar sees philosophy as playing a useful role as "underlabourer" to research and practice - the term underlabouring taken from Locke (1894, p. 14) as "clearing the ground a little...removing some of the rubbish that lies in the way of knowledge".

Collier (1994, p. 17) asks the question "why philosophy" and answers it thus:

A good part of the answer to the question "why philosophy?" is

that the alternative to philosophy is not *no* philosophy, but *bad* philosophy. The "unphilosophical" person has an unconscious philosophy, which they apply in their practice – whether of science or politics or daily life.

As Gramsci (1971, p. 323) suggests "...everyone is a philosopher, though in his own way and unconsciously, since even in the slightest manifestation of any intellectual activity whatever, in "language" there is contained a specific conception of the world" (from Collier 1994, p. 17). The explicit definition of such conceptions is important and useful.

The "bothering" with philosophy can also provide the potential for emancipation from domination by one's social or academic grouping:

> ...is it better to take part in a conception of the world mechanically imposed by the external environment, i.e., by one of the many social groups in which everyone is automatically involved from the moment of his entry into the conscious world...Or, on the other hand, is it better to work out consciously and critically one's own conception of the world and thus, in connection with the labour's of ones own brain, choose one's sphere of activity, take an active part in the creation of the history of the world, be one's own guide, refusing to accept passively and supinely from outside the moulding of one's personality (Gramsci pp. 323-324 as quoted in Collier 1994, p. 17)

The confidence provided by understanding different philosophical positions provides the researcher and the practitioner with the power to argue for different research approaches and allows one to confidently choose one's own "sphere of activity". For the researcher the emancipatory potential of such knowledge is a powerful argument for "bothering with philosophy".

87

As detailed in the introduction the philosophical grounding provided for by critical realism was immensely important for myself in defining my own path through the research. This allowed me to find my own way rather than blindly following an interpretive approach that I did not fully accept

Critical realism argues for a fundamental role for philosophy in research - not as a permanent statement of position but as conditional on the outcomes and practice of research. Bhaskar's (1978, 1979, 1989) philosophy of critical realism does not see philosophical issues as operating at a higher plane than methodological issues - the continued success of a philosophy is considered by Bhaskar (1978) to be dependent on its success as an underlabourer to the research process. Philosophy is seem to be a social institution that has an important role to play in research, not as a permanent statement of position, but as conditional and intimately related to the outcomes and practice of research. This view of philosophy encourages a coherency in research in that it sees philosophical suppositions concerning the nature of the world under study as an integral and important part of the research process.

Why "critical" in critical realism?

In my view the adoption of the "critical" foreword in critical realism is unfortunate in that it misleadingly suggests that the philosophy is aligned with Habermas' critical theory. The term is also unfortunate as it engenders a prejudgement in that "critical" seems to be an object of approval in today's philosophical fields - "critical" contrasting with "dogmatic" or "naive" (Collier 1994, p xii).

> A clearer definition is provided by Tsoukas (1992, p. 639) who sees the critical foreword as being suggestive of a "critical attitude, self-reflection, awareness of hidden presuppositions, and disclosure of assumptions of various perspectives...liberation from repression, emancipation, concern with equality and justice, fulfilment, empowerment, absence of false consciousness and alienation". This is a tall order for any philosophy but Bhaskar seems satisfied with the "critical" description for his brand of realism even though it appears to have emerged without definite intention as an amalgam of his philosophy of science, transcendental realism (Bhaskar 1978), and his philosophy of the social sciences, critical naturalism (Bhaskar 1979) – the critical application of the thesis of naturalism to the social sciences.
>
> Yet the term is useful in that it also implies a commitment to an emancipatory focus. As Benton and Craib (2001) argue despite many other disagreements Bhaskar's critical realism is like Habermas' critical social theory to the extent that they both see a close connection between self-knowledge and human emancipation (see Chapter 10 below).

Bhaskar's philosophy of transcendental realism was originally proposed as a philosophy of science - he argued that a major function of philosophy is to provide enlightenment to scientific practice by answering the question "what must be true in order for [the scientific activity] Φ to be possible?" (Bhaskar, 1979 p. 7). Bhaskar in his realist theory of science answers the question by deducing that for scientific experiment to make sense there must exist real structures that exist and act independently of the patterns of events they generate (otherwise why artificially manufacture *closed* experiments?).

Answering questions such as these are examples of *retroductive* argument and form the foundation for Bhaskar's realist philosophy of science. Retroduction aims to specify the necessary and sufficient causes and conditions for the phenomenon to come into existence, to be produced or reproduced. In particular, Bhaskar (1986 p. 11) describes *transcendental* argument as a species of retroductive argument, ie arguments "from a description of some phenomena to a description of something which produces it or is a condition for it". As Collier (1994, p. 23) argues "A transcendental argument may account for the possibility of some phenomenon, but there may be rival transcendental arguments to explain the same thing, just as there are rival theories at the frontiers of science. One transcendental argument may explain more than others, and so be the best available account. But in philosophy, as in science, while there can be justified beliefs and there can be progress, there can be no *final theory*, unsusceptible to revision and improvement".

Brown (1999) similarly argues:

> Once competing hypotheses of underlying structures have been made they must be tested empirically. Critical realists take seriously the high difficulty of experiment in social science relative to natural science. In the absence of experiment hypotheses are tested, for the most part, by their relative degrees of explanatory power regarding specific social phenomena.

As will be detailed in chapters 7 and 8 below for the case under study the presence of a social structure reflecting governmental influence is proposed as a useful means of explaining the observed events. Once the structure has been identified the associated mechanisms are then demonstrated to provide a useful explanation of the observed happenings.

Bhaskar's realist approach is deeply critical of positivism and its assumptions, however it does recognise the importance of a scientific approach and suggests that the methods and techniques of the natural world can be extended carefully or critically to the social world.

The Investigation Of Social Systems

Bhaskar (1979) considers the extent that society can be studied in the same way as nature - ie the limits of naturalism. Naturalism can be defined as the thesis that there "is (or can be) an essential unity of method between the natural and the social sciences" (Bhaskar, 1991, p. 67) whereas hermeneutic argument suggests that the two worlds are so fundamentally different that extension from one to the other is not feasible. Hermeneutic argument suggests that social objects have no existence apart from the concepts that agents possess of them and thus cannot be the object of a scientific approach.

In contrast critical realism argues that there are "lawful and reasonably stable relationships" to be found amongst social phenomena that can be investigated. Such investigation may involve the perception of entities that cannot be observed directly but can only be perceived via their effects. As Lawson (1997, p. 32) argues this is the basis for scientific experiment and thus suggests that a scientific approach may be useful in examining such entities. Social phenomena, "such as language, decisions, conflicts and hierarchies, exist objectively in the world and exert strong influences over human activities because people construe them in common ways. Things that are believed become real and can be inquired into." (Miles and Huberman, 1994, p. 4).

The extension of Bhaskar's philosophy of science to the social sciences is perhaps the most controversial aspect of critical realism. For example the influential critical realist, Collier (1994) argues that since experimental closure is not possible in the social world there can be no such thing as social "science". Yet in the text "The Possibility of Naturalism" Bhaskar provides a plausible support to such an extension of the methods of the sciences by addressing the question "Is society the sort of thing that can be studied scientifically?". In answering this question he proposes an ontology based around real "relatively enduring" structures and mechanisms.

Bhaskar's critical realism argues for critical and careful application of the methods of the sciences to the study of society. He sees science as an ongoing, developing process of explanation and enlightenment rather than the derivation (or Popperian falsification) of immutable scientific laws. Scientific and social research involves the steady unearthing of the increasingly deeper structures and mechanisms which make up the objects under study. Bhaskar's realism (Bhaskar, 1978, 1979, 1986, 1991) considers social phenomena as having a real objective existence apart from their internal subjective existence. His philosophy of social science is developed around the transcendental question "what properties do societies and people possess that might make them possible objects of knowledge for us?" (Bhaskar, 1979, p. 17). In answering this question he proposes the existence of real structures which both constrain and enable agency action. The reality of such structures suggests that the methods of the sciences can be applied to social situations although in significantly different ways grounded in the significantly different subject matters.

The concept dependence of the social world

From an interpretivist perspective Checkland and Holwell (1998, p. 19) argue for a fundamental difference between social research and research investigating the natural world. They suggest that features of the natural world are unaffected by our having theories about them (theories about why the sun rises will not affect how the sun rises) whereas in the social world "when Marx propounds a theory of history this in fact changes history".

To the critical realist, this is an inescapable aspect of the social world that makes explanation and examination more difficult, but the difficulty does not deny the need to include such messiness in the investigation. For the critical realist, Marx is seen to have a particular thought process concerning the theory of history and the product of this thought process can affect subsequent entities and events in a number of different ways. This belief suggests that there are potential causal effects of "thought" objects that can perhaps be examined.

Quotes such as those from Checkland and Howell above do not build time into their criticism. So for example their quote about Marx does not acknowledge that the original "theory of history" from Marx will subsequently over time affect a subsequent "theory of history". This conception allows that, although difficult, the consequences of Marx's original statement can thus be analysed. As Sayer (2000, p. 35) argues: *Social structures and practices are concept dependent, but they are usually most dependent on actors in the*

past, not today... Consequently 'social objects exist intransitively at the time any social scientific analysis of them is initiated, whatever the eventual effect upon them induced by such an enquiry' (Lawson, 1997, p. 200).

An opportunity for critical realist examination – mentoring?

It is my view that the role of mentoring in organisational life has not been adequately investigated. My personal experience in organizations has convinced me of the importance of understanding the effect of mentoring and reciprocal relationships on personnel advancement and oganizational decision-making. Often times a seemingly illogical and unsupportable decision can only be understood if one can appreciate the effect of the unseen mentor in the decision situation as the decision maker will often support the hidden mentor in their decision. I feel that a large part of the political process within organizations is in trying to determine who is the associated mentor of a political opponent – only by so doing can one understand their basic support structure.

Mentors have been defined as individuals with advanced experience and knowledge who are committed to providing upward mobility and support to their proteges careers (Kram 1985). Mentors are seen to play two major roles – in career development and psychosocial support. A third function in acting as role models has also been investigated (Scandura 1992). Mentors may be internal or external to the organisation; internal mentors perhaps being in a more effective position to support their associates. Ragins (1997) argues for the reciprocal nature of mentoring relationships in that the mentoring relationship has benefits for both parties. Respect on both sides is an important foundation – not necessarily respect for a person's nature or ethical position but perhaps a respect for their perceived capabilities. Mentoring, as I see it, is founded on a respectful association and mutual support.

94

As Ragins (1997) argues

Mentoring is intricately linked to the protégés development of resources for power within and between organizations. Existing research indicates that the presence of a mentor is associated with power resources and that protégés report more positional power... receiving more promotions and compensation than nonproteges. Mentors may help their proteges recognize the importance of developing power resources within and between organizations, and can provide training in political skills and influence strategies. (p. 487)

Mentoring and power relationships play a critical role in severe change processes as positioning strategies are played out. The organisation becomes a jungle of opposing factions and subtle relationships. Members who have their positions threatened will call on old favours and debts in order to protect their situation.

I feel that without mentor support outside the direct reporting relationship the executive is solely dependent on their direct superior's whims. The presence of this invisible mentor plays a significant role in organisational life and can both enhance and moderate internal power situations. It can enhance political action by subordinates if the organisational participants are aware of the hand of the associated mentor in a particular political issue.

Similarly any political action by superiors may be moderated by mentoring relationships as the superior actions need to be so presented that the subordinate mentors will agree (or at least not totally disagree) with the action. The superior mentor needs a base of support in order to continue their role and must therefore be careful not to totally alienate their subordinate associates. Such a view of organisational life helps to explain the dissemination of cultural values top-down. The superior mentor influences the

95

action of the subordinate in countless subtle ways. Similarly, in a less significant manner mentoring relationships support a bottom-up view of cultural dissemination – to maintain their base level support superior mentors must not totally alienate their supporting associates. This view also suggests that mentoring relationships can provide a moderating influence in power situations. Examining the mechanisms by which such influences are imposed is, in my view, an important exercise in understanding how organizations work.

As Midgley (1997, p.49) argues 'The powerful need only be careful about their image if there is a higher authority to whom they must defer". Although Midgley does not discuss mentoring relationships in his article on *Dealing with Coercion* it is implicit in such statements. Mentors can be seen as someone whose relationship you politically value – the maintenance of this relationship is thus considered important. In my view much of what happens in power situations is affected by these hidden influences.

Such a situation, is, in my view, a prime candidate for critical realist examination. Mentoring relationships can be viewed as a network of internal relations that have powers that may be exercised or not. The fact that they are not exercised still does not diminish their power in that other personnel are generally aware of such relationships and will often moderate their behaviours because of the mentor connection. Mentoring relationships are relatively enduring, even beyond a single organization and are only observable through their effects. It is my experience that such relationships can often have important cynergies and emergent properties when two supportive mentors co-operate. The mechanisms by which their influence is felt is complex and difficult to determine, but their importance is critical. For example, in the case study the IS Manager reflects the closeness of his relationship with the Managing Director when he comments:

He was not overtly an IT supporter, though he knew where I was coming from and he could see where we were going, he was a great visionary. In the background he was a terrific supporter but would never sign the budget papers for me or anything like that. Really, but we'd have a wink at each other occasionally ....he knew where I was coming from and I knew where he was coming from.

The new Managing Director was a different situation:

I had one meeting with him in the year, whereas [the old MD] would wander into the offfice and ask "How much money do you want to spend this week?"

The IS Manager left the organization soon after the Managing Director was replaced.

I feel that perhaps mentoring may be more important in private enterprise than public due to the relative security of tenure within public bodies but overall I feel that their importance has not been adequately recognized or investigated. The investigation of such a social object as a mentoring structure obviously has enormous difficulties but I feel that it is a structure that can be investigated under the banner of critical realism and would provide useful outcomes.

A transcendental approach

Bhaskar proposes that philosophy and philosophising play an important role in research. This transcendental method is necessary in that often the experienced world (for example, the outsourcing of the IT Department) is not explainable in terms of the observed events. We can only explain the perceived happenings by proposing (ie transcending or speculating) non-experienced and perhaps non-observable mechanisms and structures that may well be outside the domain of investigation (such as governmental influence). As Wad (2001, p. 2) argues:

If we take explanation to be the core purpose of science, critical realism seems to emphasise thinking instead of experiencing, and especially the process of abstraction from the domains of the actual and the empirical world to the transfactual mechanisms of the real world.

This type of thinking is called transcendental by Bhaskar in that it gives an important role to the crossing of the divide between the empirical and speculative activities of scientific work. As Wad points out this is necessary since often the experier.:ed world of events is not explainable in terms of the empirical facts, but only by way of incorporating non-experienced mechanism: incorporated in objects which may be within or outside our domain of investigation.

The role of metaphor in understanding unobservable phenomena

> The difficulty with such a position is that it depends on previous structural recognition. Such an approach could not be particularly useful unless there were similar documented cases from which one could derive an hypothesis about existing structures that the researcher could then watch out for. As will be detailed in Chapter 6 below metaphor can then play a large part in critical realist examination because of its ability to "make the unfamiliar familiar".

Layder (1993) argues that "a key aspect of the realist project is a concern with causality and the identification of the causal mechanisms in social phenomena" (p. 16). Yet critical realism as a philosophy supports more than this in that it also proposes the nature of the objects of investigation. Layder (1993) defines realism as centrally comprising an attempt to preserve a "scientific" attitude towards social analysis whilst at the same time

recognising the importance of actors' meanings and in some ways incorporating them in the research (p. 16). Miles and Huberman (1994) describe their critical realist approach to qualitative analysis as incorporating an interpretive element:

> We agree with interpretivists who point out that knowledge is a social and historical product and that "facts" come to us laden with theory. We affirm the existence and importance of the subjective, the phenomenological, the meaning-making at the centre of social life. Our aim is to register and "transcend" these processes by building theories to account for a real world that is both bounded and perceptually laden, and to test these theories in our various disciplines. (p.4)

Critical realism necessarily requires an acceptance of the existence of **real** structures and mechanisms which researchers progressively uncover during the social value-laden process of research.

Conclusion

Realism is generally not what people think it is. Realism is often seen as supporting positivist positions, yet contemporary realist positions directly address the shortcomings of positivism. From within the IS arena Silvermann (1998) and Wilson (1998) provide just two examples of a dated conception of realism. Realism is often equated with objective approaches but it is rarely detailed what is meant by *objective*. As Sayer (2000) argues, it is important that researchers appreciate these different meanings in their explanations:

> ..value-ladenness may or may not affect the truth status of propositions, and where it does it may do so for better or for worse. The fact that knowledge is subjective in the sense of being of and for subjects, and situated and embodied, may have positive, negative or neutral implications for its truth status. In both these cases, it is advisable to be aware of the specific forms of subjectivity. What kind of values, if any, inform an analysis or account, and does this cause any problems or occlusions? What kind of subject position is evident, and does it raise any problematic implications? Reflexivity is conducive - we can put it no more strongly - to objectivity in the sense of

developing true or practically adequate accounts. (p. 61)

The values informing this PhD – respect for the individual

> Such a question can be asked of myself – what kind of values inform this analysis? Certainly, being a relatively new academic I have no academic or personal commitment to realism or any other "ism". In fact, I am often surprised at the level of emotion presented by proponents of both sides.
>
> Perhaps a value that may affect my conclusions is my belief and respect for the power and rationality of the individual (and more specifically the organisational manager). As detailed in later chapters such a value affects my acceptance or otherwise of some social constructivist approaches that deny such power and rationality.

Wilson (1998) comments on the remarkable resilience and resourcefulness of realist argument in the face of the "rise of relativism" and suggests that it may too soon to say that realist argument "lies in ruins" (p. 163). The remaining chapters in this thesis will hopefully support such argument in that I will argue the benefits of adopting the contemporary "non-naïve" realist stance proposed within Bhaskar's critical realist philosophy. A major component of the critical realist stance is the need to recognize both the macro and micro elements of any social situation. This conceptualization is a vital component of the critical realist argument and is presented in the next chapter.

Chapter 3

Structure and Agency in Critical Realism

*The "problem of structure and agency" is now a familiar phrase
used to denote central dilemmas in social theory – especially the
rival claims of voluntarism versus determinism, subjectivism
versus objectivism and the micro- versus macro-scopic in
sociology. These issues are central for the simple reason that it
is impossible to do sociology at all without dealing with them
and coming to decisions about them....Imperative as this is, the
urgency of the "problem of structure and agency" is not one
which imposes itself on academics alone, but on every human
being. For it is part and parcel of daily experience to feel both
free and enchained, capable of shaping our own future and yet
confronted by towering, seemingly impersonal,
constraints...Consequently in facing up to the "problem of
structure and agency" social theorists are not just addressing
crucial technical problems in the study of society, they are also
confronting the most pressing social problem of the human
condition. (Archer 1995, p. 65)*

Introduction

As the above extensive quotation suggests the "problem" of structure
and agency is an ongoing issue in sociology and society in general. This
chapter provides a brief introduction to the meta-theoretical position of critical
realism which recognises the importance of structure and agency. It then
provides a discussion of various theoretical positions on *structure* and
examines whether such viewpoints **can** provide useful perspectives within the
IT arena. The chapter uses the hypothetical case of examining an ERP system
to highlight the differences between the different perspectives. This chapter
suggests that in order to examine social situations there needs to be a
recognition of the importance of structure and agency. Historically research

101

approaches have tended to emphasise one or the other (not both). Giddens'
structuration theory is a recent attempt to incorporate both elements within
its remit. This chapter argues for the necessity of incorporating both elements
within a research approach and presents the different conceptions of both
within critical realism and structuration theory. The role of technology within
such models is also examined.

Collectivist and Individualist Arguments

A realist believes in the primacy of ontology. As Archer (1995) argues
"the nature of what exists cannot be unrelated to how it is studied...the social
ontology endorsed does play a powerful regulatory role vis-à-vis the
explanatory methodology for the basic reason that it conceptualises social
reality in certain terms, thus identifying what there is to be explained and also
ruling out explanations in terms of entities or properties which are deemed
non-existent" (p. 16-17). Archer (1995) argues that the reality of social
situations can be usefully reflected by consideration of the two fundamental
components of social life – structure and agency. She equates a structural
perspective with a macro or collectivist perspective and an agency perspective
with a micro or individualist perspective.

There has been an enduring argument between collectivists and
individualists concerning the relative importance of structure and agency in
the social sciences; such argument being largely rejected by postmodernist
theory which suggests that "reality is in perpetual flux and transformation and
hence unrepresentable through any static conceptual framework or paradigm
of thought" (Chia 1996, p. 46 as quoted in Reed 1997, p. 24). Such theory
argues against the dualistic thinking involved in the structure/agency debate.

Reed (1997), from a critical realist perspective, suggests that many so-
called postmodern approaches "work with 'flat' or 'horizontal' social ontologies

In which the processual character of social reality totally occupies the analytical and explanatory space available" (p. 24). He suggests that post-modernist approaches occupy a shared epistemological niche in which the study of "the local, the decentred, the marginal and the excluded is superior to examining what is at the centre" (Rosenau 1992, p. 136). In a criticism of ethnomethodology and actor network theory he argues that:

> The ontological status and explanatory power of 'structure' - i.e., as a concept referring to relatively enduring institutionalised relationships between social positions and practices located at different levels of analysis that constrain actors' capacities to `make a difference' - is completely lost in a myopic analytical focus on situated social interaction and the local conversational routines through which it is reproduced. (Reed 1997, p. 25)

He describes the world of the ethnomethodologist as consisting "almost totally of verbs and hardly any nouns" (p.26). Process is the primary consideration and structure is given little explanatory power in this focus on the local and contingent:

> they attach - both in their theoretical protocols and empirical practice -- overwhelming importance to the localized interactional contexts and discursive, representational and technical practices through which 'organization' is instantiated as a temporary ordering or patterning of the continuous flow of social life. They feel no need to look beyond these micro-level processes and practices because, as far as their advocates are concerned, there is nothing, ontologically or analytically, 'there'; flat ontologies and miniaturized local orderings construct a seductive vision of our social world in which everything and everybody is constantly in a `state of becoming' and never in a `condition of being'. This socio-organizational world is disassembled into some of its elemental constituents, but these are never re-assembled with a view to gaining a broader understanding of and explanatory purchase on the structural mechanisms through which they were originally generated and are subsequently elaborated. (p.29)

103

The need for an analytical dualism

In a similar vein Archer (1995) argues that inevitably much of social theory has come to lean towards consideration of either collectivist **or** individualist issues – or equivalently, emphasised structure *or* agency, rather than structure *and* agency. Structuration theory is a recent attempt to address both agency and structure, however, Archer (1995) suggests that structuration theory suffers from a conflation of structure and agency, thus reducing the ability to examine their interaction over time. In order to be able to examine the important interactions between structure and agency over time Archer (1995) proposes an *analytical dualism*. This analytical dualism is based on two propositions:

(i) That structure necessarily pre-dates the action(s) leading to its reproduction or transformation.

(ii) That structural elaboration necessarily post-dates the action sequences which gave rise to it. (p. 15)

Human agents either reproduce or transform social structures which are seen to be relatively enduring over time. This incorporation of a longitudinal temporal aspect to the structure/agency dualism is an important part of Archer's theory – an aspect which she claims is not properly represented in structuration theory.

Morphogenesis and Morphostatis

Archer (1982,1995) bases her social model around Maruyama (1963) who introduces the so-called morphogenetic approach. This approach applies work in general systems theory on positive feedback loops to social theory. Archer examines society as an open system that can have a feedback mechanism that either maintains or elaborates social structures. The "morphogenetic approach" aims to describe the process of social structuring whereby processes elaborate or change a system ("morpho" meaning shape, "genesis" indicating generation). In contrast a morphostatic approach

concentrates on those processes which tend to preserve or maintain a given form, organisation or state.

In classical cybernetics morphostatic processes emphasise deviation minimising feedback loops whereby negative feedback nullifies systems deviation, thus ensuring a system equilibrium. Maruyama (1963) originally discusses a morphogenetic or structure building process within systems theory whereby deviations are amplified by a positive feedback process. Such deviation-amplifying feedback encourages complexity and thus increases the requirement for organisation. Archer (1982), in a discussing the different perception of structure in Giddens' Structuration Theory, describes morphogenesis as referring to:

> the complex interchanges that produce change in a system's given form, structure or state (morphostasis being the reverse), **but is has an end-product**, structural elaboration, which is quite different from Giddens' social system as merely a 'visible pattern'. This to him can best be analysed as recurrent social practices, whereas to general systems theorists, the elaborated structure has properties which cannot be reduced to practices alone, although these are what generated both it and them. The emergent properties which characterise socio-cultural systems imply discontinuity between initial interactions and their product, the complex system (p.61).

The M/M approach argues that human agents either reproduce or transform social structures. This approach incorporates a temporal aspect to the change process in arguing that structures are relatively enduring over time, their alteration being a function of agency action.

Archer (1995) spends a deal of time discussing how the two historical approaches to social investigation – *upwards conflation* (which treats social structures as free creations of social agency) and *downwards conflation* (which treats social activity as determined by structural factors) prove

inadequate in explaining the complexities of social situations. In order to understand how individual action impacts on social situations one must recognise the need for an *analytical* dualism, even though in reality such separation is not possible i.e. structure and agency are needed in order to explain. Archer's central argument is that "structure and agency can only be linked by examining the interplay between them over time, and that without the proper incorporation of time the problem of structure and agency can never be satisfactorily resolved" (p. 65). Archer uses this argument as a major criticism of Giddens' Structuration Theory which she suggests suffers from central conflation (the suggestion that structure and agency are inseparable, one *sinking* into the other).

Craib (1992) highlights the importance of the analytical separation of structure and agency when he presents an example of Archer's argument:

> All agents start from a structural position that enables and constrains the possibilities of action, and their actions can change that structure, which in turn constrains them. In this "morphogenetic cycle," different levels emerge: Emergent properties are relational, arising out of combination (e.g., the division of labour from which high productivity emerges) where the latter is capable of reacting back on the former (e.g., producing monotonous work), has its own causal powers (e.g., the differential wealth of nations) which are causally irreducible to the powers of its components. (p. 9)

A recognition of structure and agency and the way that they interact over time is an important element with critical realist argument.

The Social Context of IT

Information systems operate within a social environment and thus it can be argued that social theory can play a useful role in researching information systems. Early examples of IS researchers emphasizing the social nature of IS include Kling (1980), Land and Hirschheim (1983), Lyytinen &

Lehtinen (1984), King (1987), Zuboff (1988), Orlikowski (1992). More recent writings have developed on this theme and suggested varying theoretical foundations for the inclusion of a social context within IS research. Examples include Orlikowski (1992), Lyytinen (1992), Walsham (1993), Baskerville, Smithson, Ngwenyama and DeGross (1994), Orlikowski, Walsham, Jones, and DeGross (1996), Hirschheim, Klein, and Lyytinen (1996), Introna (1997), Baskerville, Stage and DeGross (eds) (2000).

Avgerou (2001) argues it is important that IS practitioners consider the social context in which IS Development takes place and also the broader organisational processes under which it operates:

> Most of the knowledge developed and taught in the IS field promotes a normative professional practice, based on a limited perception of context. Broader organizational processes are usually outside the perceived terms of reference of IS practice. Further research is needed to develop appropriate analytical knowledge to equip professionals with capabilities to pursue contextualist analyses.

Avgerou (2001) suggests many authors in the IS arena separate the technological content from the social context in which the IT change ensues. This has allowed useful specialized IS knowledge to be developed separately from the social context but such a separation is becoming harder to justify given the increasingly ubiquitous nature of information technology. As Probert (1997) suggests an information system contains elements of both the social and the technical with technology intimately entwined within organisational life:

> The relationship between technology and organisation is neither one of "impacts" [of IT] nor of "choice" [made by managers], per se. Rather technology and organisation are closely intertwined through flows of knowledge and ideas which transcend the individual organisation but which find expression in, and are reinforced by, political interests and agendas at the organisational level (Scarborough and Corbett, 1992, p. 157 as

Avgerou (2001) suggests a more appropriate model for today's information system is as a heterogeneous network:

> It suggests that what is generally called "information system" in the jargon of practitioners as well as academics cannot be meaningfully restricted to computer or communications applications within an independently delineated social environment. Technical artefacts such as hardware, software, data in paper or electronic form, carry with them engineers with the conventions of their trade, industries that sell, install and support them, "users" who understand their significance and interpret the way they should be put to action according to their circumstances and consultants who convert them from symbol manipulating machines to "competitive advantage" (p. 46)

He argues that, in line with actor network theory, the content of change considered in IS studies should not be technology innovation but the change of heterogeneous networks of institutions and people within which Information Technology is called to play a role. This concept does not see the information system as being in isolation from the social context in which it operates.

Such an ontology seems sensible, however, I feel there is a need to accept the concept of an *analytical dualism* in order to be able to describe and explain the interconnected and complex social situation in which information systems are developed and used.

Individualists within the social arena are committed to social atomism, 'that is to the claim that the important things about people can indeed be identified independently of their social context' (Archer 1995, p.35).

Individuals are seen to be the ultimate constituents of the social world. In contrast the collectivist sees society as more than simply the sum of the individuals. Society can be viewed holistically as having emergent properties that cannot be explained solely through examination of its individual components.

Archer (1995) argues that the ongoing conflict between micro and macro views of society and the problem of agency and structure is an important and recurring debate within the sociological field. She feels that the importance of such an issue requires that all social theorists (and social investigators) define their stance with respect to this fundamental issue.

The difficulty in representing social reality (and IT within that reality) is the need to include both collectivist and individualist perspectives. Archer (1995) presents the complexity of social reality when she describes society as providing the answer to a number of riddles:

> What is it that depends upon human intentionality but never conforms to their intentions? What relies on peoples' concepts but they never fully know? What is it that depends upon actions but never corresponds to the actions of even the most powerful? What is it that has no form without us, yet which forms us as we seek its transformation? And what is it that never satisfies the precise designs of anyone yet because of this always motivates its attempted reconstitution? (p. 165).

Scott Poole & Ven de Ven (1989, p. 564) similarly list some of the collectivist/individualist paradoxes evident within organisational theory:

- the difficulty in reconciling the explanation of behaviour as a function of structural determination with the equally strong claim that it is the product of purposive action;

109

- good arguments for two incompatible conceptualizations of organisational climate – as an aggregation of individual climate perceptions or as a macrolevel system property;

- the question of whether social organisations are fundamentally stable orders or continuously changing emergents;

- the trade-off between the need to establish individual identity in groups and the collective nature of group action.

Structuration theory and critical realism are recent attempts to incorporate both elements, structure and agency, but both theories provide little practical help on developing useful methodologies. Even more relevant is their lack of a specific recognition of technology itself within each model. In critical realism material objects are given little relevance, the concentration being on human relations. Lawson (1997, p. 327) briefly comments on technology and sees technology as a social implementation of a material object; the social implementation of a particular technology being in part a response to human transformative activity. Under this definition technology and its associated human elements can be seen as a structure (although few definitions of "structure" within critical realism include any reference to material objects).

In contrast to this real existence for structure structuration theory only provides for a virtual existence for structure. Structuration theory sees structures as having no existence external to agency - they are functionally inseparable – structures only becoming real when instantiated through agent's actions. In my view this virtuality for structures makes the representation of IS difficult. Orlikowski and Robey (1991) and Orlikowski (1992) have included a model for IT within structuration theory as having a duality expressed:

in its *constituted* nature - information technology is the social product of subjective human action within specific structural and cultural contexts - and its *constitutive* role - information technology is simultaneously an objective set of rules and resources involved in mediating (facilitating and constraining) human action, and thus hence contributing to the creation, recreation and transformation of those contexts. (as quoted in Rose (2000, p. 119))

Such a virtual definition for IT has limitations as will be detailed in the next section.

Individual and collectivist representations of technology

Olesen and Myers (1999, p. 320) present Table 1 describing a collectivist/individualist perspective on technology (based on De Sanctis 1993). They describe how collectivist and individualist perspectives can alter the focus in the examination of Group Support Systems:

Whereas individualistic assumptions lead the researcher to be concerned with the efficiency and effectiveness brought about by the GSS, collectivist assumptions lead to an interest in the social meaning of the technology, its symbolism, how cultural practices affect technology development, and how technology, in turn, reinforces cultural norms (De Sanctis, 1993, p. 101).

Table 1: Opposing perspectives on technology (from Olesen and Myers, 1999, p. 320)

	Individualism	**Collectivism**
Unit of Analysis	Individual Group as an aggregate of Individuals	Society Organization
Technology Metaphor	Tool	Product Service
Technology Goal	Decision efficiency Decision Quality	Support of the social order
Technology-induced Change	Active (deterministic)	Passive (emergent)
Guiding Paradigm	I	We

Each of the perspectives detailed in Table 1 provide a limiting view on technology; such views mirroring similar issues within social theory concerning individualist/collectivist stances.

Representing IT as structure

Archer (1995, p. 104) discusses a number of different conceptions of social structure (from Porpora 1989). Four major conceptions of structure are discussed:

- structure as "patterns of aggregate behaviour that are stable over time" (from Methodological Individualism).

- structure as "lawlike regularities that govern the behaviour of social facts" (from Methodological Holism).

112

- structure as "rules and resources which are implicated in social practices and have no existence independent of them" (Giddens' Structuration Theory)
- structure as "systems of human relations among social positions" (Methodological Realism).

The adoption of any one of these perceptions of structure can fundamentally affect the ensuing research process as Walsham (1993, p. 6) suggests when argues that: *'Theory is both a way of seeing and a way of not-seeing - a particular theoretical perspective can blind researchers to other perspectives at its moment of application'.* For example, if we consider IT systems as having an important structuring influence on work practices (ie agency action) we can argue for using any one of the four conceptions of structure to highlight different aspects of the technology. More particularly we can look at how such underlying theory can affect the examination of Enterprise Resource Planning (ERP) systems.

ERP being conducive to a structural representation?   ⸫

The use of ERP systems as an example of "IT as structure" seems sensible as we know that the implementation of ERP systems has important, often radical effects on business processes and thus associated work activity. Similarly, the implementation and use of CASE tools involves a significant structuring impact on the users in that CASE tools are generally associated with a particular systems development model and thus restrict the flexibility of the analyst. Orlikowski (1992) in proposing the use of Structuration Theory to examine CASE implementation reflects her recognition of this structuring impact

> Would structure be so important if we were examining, say, the use of intranet technologies in an organization? Intranets have proven to be a popular and important technology in organizations but would their representation as a structure provide as useful an explanatory insight?
>
> Such argument supports the need for a consideration of the research purpose and research object in selecting appropriate theory (see next chapter).

ERP systems are enterprise wide systems that often require the implementation of so-called "best practice" (or, sometimes referred to as common practice) process models. These best practice process models define optimal processes for the particular industry under which the organisation operates. Often existing user roles and processes are radically changed and thus the structural impact of ERP systems is generally very high, particularly if a major process re-engineering is also undertaken at the same time. It therefore seems sensible to adopt a theoretical approach that recognises the importance of structure and its impact.

> Such a use of underlying theory can be well argued within critical realism as it suggests that certain theories can be "better" than others for explaining observed happenings. If structuring impacts are seen to be important then a critical realist argument would suggest that it makes sense to use a theory that recognizes structures and their effects.

114

Archer (1995) argues that the first individualist conception for structure is insufficient 'primarily for its explicit atomism, secondly for its assumption that nothing but a process of aggregation is involved in structuration, thirdly for making the visible pattern reproduced synonymous with 'structure' and finally for the presumption that to be a structure *is to be* relatively enduring' (Archer 1995, p. 105). As detailed in Table 1 above such an underlying theory would see the ERP system as a tool and would therefore provide a useful basis for examining how individuals actively use the ERP system to improve their work practices. Such a perspective would be useful in examining the functionality of the various components of the ERP system but would have difficulty in representing the important structural and organisational impacts of the technology.

The reification of ERP systems

Similarly the collectivist perspective on structure might be rejected 'firstly for the explicit reification of structure by its severance from action, secondly, for its assumption that regularities are law-like in producing ineluctable consequences, thirdly, for holding that these operate in steam-roller fashion immune from human intervention, and lastly, for assuming that structures endure and unfold over the heads of actors like mechanical and naturalistic forces' (Archer 1995, p. 105).

ERP Systems are hugely complex systems that impose constraints on the work practices of operating users and thus a theory based around methodological holism might be useful in examining ERP as the theory's underlying model is consistent with the examination of such constraint. It may also be useful in supporting an argument that ERP systems are often reified. Reification can be seen to overly emphasise the role of the "system" rather

than acknowledge the role of the individual. Collins (1998, p.150) describes how such an overemphasis on systems and systemic properties can be detrimental:

> It seems, then, that when we come to account for the nature and contours of organisations, it is systems, not people, who do things. As a result there seems to be little room for people to interpret their role within organisations, and make judgements based upon these interpretations as to how to act. Instead it seems, the behaviour of people is programmed by the role they perform. With the role of interpretation and perception downplayed, the system and its boundary take on a concrete rather than an analytical role, and so the system apparently enforces itself on members of the organisation rather than being something which people have room to interpret, debate and dispute.

Whilst Collins criticism is targeted at methodology assumptions within so-called "systems approaches" I feel his comments are a useful suggestion as to how ERP systems can be misrepresented. This privileging of structure over action is termed by Collins as reification. Hyman (1975, p.13) defines reification as:

> Treating abstract collective entities which are the creation of human activities, as the active agencies in social relations and in consequence, devaluing the part played by human actors.

ERP systems are open to reification as is represented in a user comment taken from Volkoff (1999):

> Individuals at PFP made statements such as '[the software] changes the way you think about [a specific type of information] because SAP treats it differently...it was a big thought process change,' and that they had to 'translate user requirements into SAPanese.' At UNI one user talked about 'changing from trying to map from my world into PeopleSoft, to asking what will make this system work, mapping from PeopleSoft into my world.' (p. 236)

116

Reification is clearly represented in the adoption of such terms as "SAPanese" to describe the complexity and domination of an ERP system such as SAP. Similarly the suggestion to map from "PeopleSoft into my world" is an insightful comment on the imposing nature of such ERP systems as PeopleSoft.

SAPanese as an allegory for Japanese?

It would be interesting to explore further the metaphorical associations behind such terms as "SAPanese" and determine whether the use of such terms are implying that the computer system is like the large unfamiliar Japanese culture. A very interesting metaphor in my view.

Similarly the following quote from an SAP-focussed publication highlights the constraining nature of SAP and similar such ERP systems:

SAP R/3's broadest impact on the Company has been its influence on the corporate culture. Prior to the R/3 implementation, there was a perceived high degree of disorder. While the Company does not yet exploit all of the information available from the new IT system, the system has provided a much greater sense of control and has had significant impact on how employees approach their responsibilities. R/3's tightly integrated data model has taught people that they must perform functions as they are supposed to be done. (The ROI Report, 1997, p. 12)

Such a collectivist perspective on ERP systems might encourage the researcher to ignore the potential adaptability of ERP systems and downplay the important power that the agent has to amend and enhance the system. Such a perspective on ERP might also tend to see ERP systems as legacy systems and thus misrepresent the potential that they can provide as a base for e-business expansion and inter-enterprise co-operation.

Structuration theory and the representation of IT

The third conception of structure, founded on structuration theory, is proposed as a means of accommodating both individualist and collectivist views. Giddens "inserts the concept of 'system' between the two [structure and agency] in order to create what he calls an interdependent 'duality'. Social systems are constituted by the activities of human agents, enabled and constrained by the structural properties of these systems" (Whittington 1994, p. 62). However, under this conception of structure, "while structural properties make action possible, structures themselves have no reality except as they are instantiated in activity or retained mentally as remembered codes of conduct or rights to resources" (Whittington 1994, p. 62).

This virtual existence for structure sees structure as having no existence external to agency - they are functionally inseparable – structure only becoming real when instantiated through agent's actions. Structural properties are generally reinforced through the comfortable rule following and routinized behaviour of knowledgeable agents. Thus, for example, an educational system is not an identifiable form of social organisation but a visible pattern 'produced by agency manipulating rules and resources in ways which perpetuate this patterning' (Archer, 1995, p. 107).

Giddens argues for the importance of choice in agent's actions, he sees the actor as not being passively embedded in social systems but as being knowledgeable and actively engaged in the constitution of such social systems. Rule interpretation is a major activity of Giddens' concept of the 'active agent' both in the way that they interpret complex internal organisational rules and in the way they apply the external rules gained through participation in systems outside the organisational system. An agent can only be an agent if they are capable of 'making a difference' – a passive accepting agent is not a part of Giddens' model.

118

Orlikowski (1992) uses structuration theory to develop a model of organisational use of technology. The model sees technology as being a structural property of organisations - it embodies and hence is an instantiation of some of the rules and resources constituting the structure of an organisation. Technology is both a medium and product of human action (see Figure 3 below) and the users of the technology are seen to separate into those that use the technology and those that design and mediate the technology for users. Orlikowski's model suggests the consideration of two modes of interaction – the *design mode* and the *use mode* (p. 408) to reflect the major modes of interaction between actors (the developers and users) and structure (the technology) at different points in time.

Multiview ver 2.0 (Avison, Wood-Harper, Vidgen, & Wood 1998) is an example of an IS development methodology loosely based on Giddens' structuration theory that attempts to incorporate a structural perspective and an agency perspective. They see their Multiview 2 development methodology as an interpretive scheme that is drawn on when developing and deploying information systems (action) in an organizational context (structure).

From a critical realist perspective the Multiview 2 framework wrongly equates structure with "organisational context". The realist perspective would argue that the organisational context provides a complex interplay of multiple interacting structures and mechanisms that affect the agent's use of an ISD methodology in various ways. It would see the model as being too simple in its equating of context with structure. Interestingly along with Archer (1995) Avison et al (1998) also see a need for an analytical separation between the real world of objective structures and the transitive world of agency interpretation:

At the heart of Multiview2 is a belief in the inseparability of

119

object and subject worlds...Rather than see ISD as a process of bringing together the social and technical aspects, we argue that it is more appropriate to view ISD as a way of making temporary and artificial separations in which objectivist accounts of meeting real-world requirements and subjectivist accounts of a socially-constructed reality achieve a synchronization (p. 133).

Multiview 2 does not propose a prescriptive approach to systems development instead suggesting that the analyst draws on the interpretive frame throughout the development process. This non-inclusion of a time element is a characteristic of Giddens' structuration theory. From a critical realist perspective such neglect is a major problem with structuration theory in that there is thus an inability to examine the interaction of structure and agency over time. They suggest that "structure and agency can only be linked by examining the interplay between them over time, and that without the proper incorporation of time the problem of structure and agency can never be satisfactorily resolved" (Archer, 1995, p. 65). Giddens' theory suggests that structure and agency are inseparable, one *sinking* into the other (termed by Archer as elision) thus disallowing the study of their interaction over time.

The use of Giddens' framework and the representation of technology as structure raises a number of issues. As Archer (1995) argues Giddens' representation of structure makes it difficult to investigate the interplay of actors and technology over time. Orlikowski's model (Orlikowski, 1992) reduces the impact of this shortcoming by looking at two separate instantiations of technology, the *use mode* and the *design mode*. However whilst such separation is useful it does not allow for a full ongoing recognition of the interaction between developers, users and the technology over the often considerable time involved in systems design and implementation.

Another issue with Orlikowski's model is the equating of technology with structure, thus providing technology with a virtual existence, the technology only being 'made real' on instantiation. Such a model for technology does not encourage a deep investigation of the properties of the particular technology – these properties having the potential to impact later use and design. Giddens' framework cannot insist on a clear specification of virtual structures since they do not in fact exist until instantiated, they only exist as 'rules and resources'. Yet technology has emergent properties that cannot be represented solely as 'rules and resources'.

Volkoff (1999) uses Giddens' Structuration Theory to analyse an ERP implementation and in so doing highlights the role of the 'active agent' in changing and modifying the ERP system:

> The adaptation of software and organizational processes is an iterative process entailing on-going social action that is clearly constrained by both the structural properties of the organization and the built-in properties of the software. The actions of the project team and other members of the organization will alter some of these properties and reaffirm others. (p. 236)

The concentration within structuration theory on the active agent and its lack of a recognition of the reality of structure and their emergent properties suggests that it would be difficult to properly analyse the particular properties of ERP systems and how they may constrain agents actions. For the critical realist a major problem with using such a theory is the inability to include time in the analysis. Such a neglect limits the possibility of examining the important ongoing structural elaboration that ensues through agency action.

The representation of IT within critical realism

The fourth definition of structure is that of the methodological realist who sees structure as "systems of human relations among social positions".

121

Such a definition would highlight the social setting in which the IT resides however but can have little to say about the technology itself. Critical realism has little to say about material objects within its ontology. Lawson (1997, p. 327) suggests that technology be seen as a social implementation of a material object, this social implementation being in part a response to human transformative activity. A critical realist approach to the examination of an ERP system might suggest that the ERP system can act as both a mechanism and structure. The representation of the ERP system as a social structure allows an emphasis on relational properties with other groups as well as allowing for an examination of the complex internal relations. The ERP system technology can also be seen to provide a mechanism by which organisational structures are transformed in both intended and unintended ways as the ERP system is implemented, used and transformed.

In contrast to the virtual existence for structure given within structuration theory the realist interpretation sees structure as referring to actual forms of social organisations, as 'real entities with their own powers, tendencies and potentials' (Archer 1995, p. 106). Such structures cannot be perceived and thus cannot be identified except through examination of their effects. Social systems depend on the relations between and within a plurality of structures, such relations having their own independent causal properties. The resulting system founded on the various relations has emergent properties which may affect agents acting within the system. This interpretation of structure is in contrast to Giddens' approach which is non-relational seeing structure as 'rules and resources'. Giddens' approach emphasises the role of the active agent; Bhaksar's realist interpretation elevates the role of structure and its shaping role in social situations.

Archer (1995) discusses a number of issues related to Giddens' representation of structure. For example, Giddens' perception of structure as

virtual, only becoming real on instantiation, necessarily requires that social theory concentrate on social 'practice'. Such concentration leads to what Archer terms as the over-active agent in that it ignores the possibility that agents may have a role to play in the elaboration of structures purely through their **existence** as part of a collective group; under structuration theory this passive role of the non-doing agent cannot be reflected. For Archer actors (non-doing agents) and (active) agents are different things and should not be 'elided' or combined as provided for in structuration theory.

Archer also argues that structuration theory does not allow for the separate investigation of the emergent and irreducible properties of structures and agents. In particular the collapsing of structure into agency negates the investigation of their interplay over time – how pre-existing structure may constrain action and how action reproduces or transforms existing structures. Critical realism argues for the consideration of both structure and agency and, specifically, brings time dependency into account. The central argument is that 'structure and agency can only be linked by examining the interplay between them over time, and that without the proper incorporation of time the problem of structure and agency can never be satisfactorily resolved' (Archer, 1995, p. 65).

Institutional Properties

C

D

Information
Technology

A

B
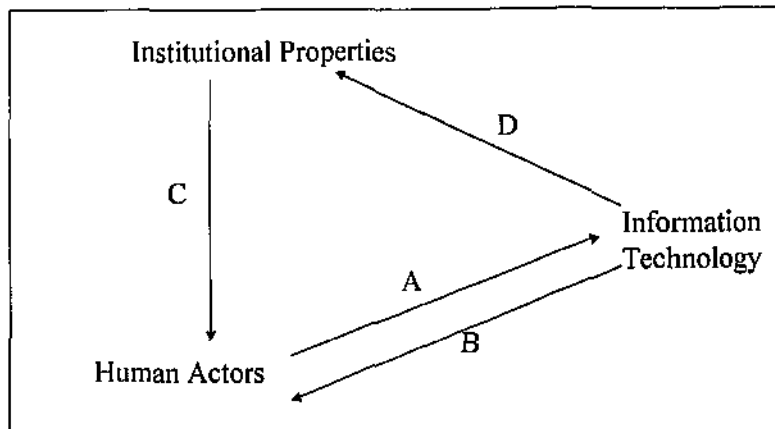
Human Actors

Arrow	Type of Influence	Nature of Influence
A	IT as product of human action	IT as an outcome of such human development as design and development, appreciation and modification
B	IT as medium of human action	IT facilitates and constrains human action through the provision of interpretive schemes, facilities and norms
C	IT as product of human action	Institutional properties influence humans in their interaction with IT, such as intentions, design standards, professional norms, state of the art in materials and knowledge and available resources (time, money and skills)
D	IT as product of human action	Interaction with IT influences the institutional properties of an organization through reinforcing or transforming systems of signification domination and legitimisation

Figure 3: A representation of IT within structuration theory

Within structuration theory IT involves the snapshot of a social situation at a particular time – time-related issues cannot be taken into account under this model.

Figure 4: A representation of IT within critical realism

Within critical realism structural reinforcement and elaboration of pre-existing structures allows a consideration of time-related issues.

External structures

Old Internal Structures

A

B

Old IT system/structure

New structures

C

D

Organisational actors

Time
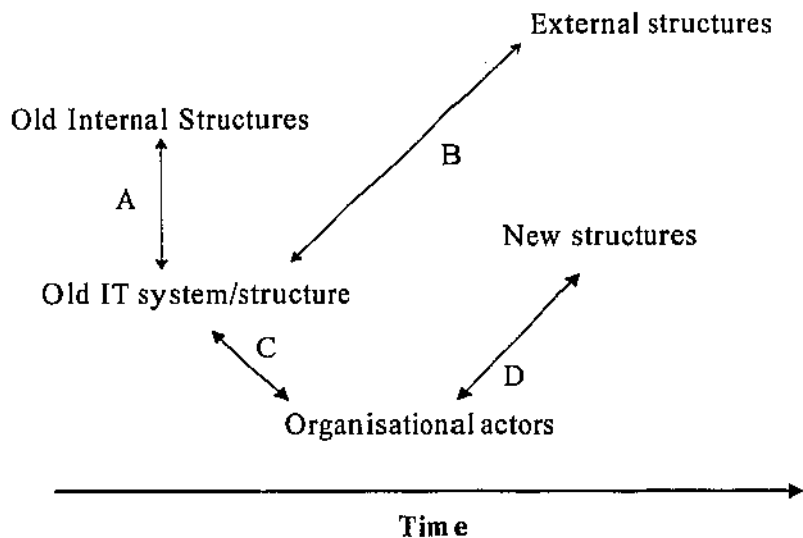
Arrow	Type of Influence	Nature of Influence
A	Structural reinforcement and elaboration	The introduced IT system changes existing structures within the organization as new positions are created and organisational actors use the IT system to reinforce or transform existing structures
B	Structural reinforcement and elaboration	The introduced IT system impacts external structures through enhancing communication, changing business practices and perhaps altering the IT.
C	Structural reinforcement and elaboration	Organisational actors reinforce or transform the existing structural impositions of the introduced IT system via changed work practices or changes to the technology.
D	Structural reinforcement and elaboration	New changed structures are consequent on the structural reinforcement and elaboration emanating from agency action.

Figure 4: A representation of IT within critical realism

Within critical realism structural reinforcement and elaboration of pre-existing structures allows a consideration of time-related issues.

Conclusion

This chapter discusses a number of different ways of envisaging structure and discusses the ways that theory can ultimately define the object under study. A hypothetical example is provided to demonstrate the way that different conceptions of structure can limit the explanatory possibilities in examining ERP systems. A collectivist definition of structure as "law-like regularities that govern the behaviour of social facts" is a tempting means of examining the impacts of ERP on organisational life, however, as indicated above, it does not go far enough in allowing for a consideration as to how agents may amend the system and their own behaviour to adjust to such "law-like regularities".

A more complete analysis can be attempted by the use of Giddens' Structuration Theory (Volkoff 1999). However, Giddens' structuration theory is difficult to operationalize; it is a varied and complex theory that Craib (1992) associates with the perhaps unkind metaphor of an omelette to highlight its complexity. As Craib (1992, p. 33) points out Giddens' theory "is not, nor does Giddens claim or want it to be, a tight, logically deduced and interrelated theory" - it is a rich and varied theory that can provide useful and significant perspectives on the complexities of organisational life but provides little methodological guidance. As Rose (2000) argues Giddens' Structuration Theory is difficult to apply within the IS field because of:

- the absence of specific theories about how information technology is involved in the process of structuration

- Giddens' own disinterest in practical uses of his work leaves no path to follow.

- the relative inaccessibility of structuration theory to IS researchers and practitioners due to the different discourse style and specialised concept vocabulary of social theory. (p. 128)

For IS research it seems that the fundamental assumptions underlying the theory do not seem to mesh well with the reality of technological systems. The critical realist perception of accepting a technological system as a pre-existing object with emergent and irreducible properties rather than as a virtual object only *made real* through instantiation seems a more useful and practical representation, yet, as for structuration theory, there is little practical guidance and little specific conceptualisation of material objects such as technology within the theory.

The next chapter will move back into the philosophical area and look more closely at interpretivism and critical realism in general and highlight possible points of connection between the two.

Chapter 4

Interpretivism and critical realism – points of connection

Critical realism - "what we see is less than what there is"

Interpretivism – "what we see is what we get". (Benton and Craib, 2001, p. 177)

Introduction

As the above quotes indicate critical realism proposes a form of depth realism in that reality is made up of 3 domains, the domain of the real, actual and empirical. Under this view there is more to reality than what might empirically or actually eventuate. In the domain of the real the critical realist also sees reality as stratified in that identified mechanisms can be explained by reference to causal mechanisms at a deeper level of reality. In contrast interpretivism is focussed on the domain of the actual and the empirical refusing to acknowledge the presence of a reality external to individual or social perception.

Interpretivism is often described as supporting the discovery and description of an 'insider view' on a situation and encouraging the interpretation of a situation from the participant's perspective. Participants intentions, meanings and interpretations are elevated to a central position in the research. Unlike critical realism it assumes a single dimension to reality with a focus on what is experienced. Fundamental to interpretive enquiry is the view that the study of the social sciences is different from the study of the natural sciences. In this assumption it is clearly in opposition to critical realism. There are however similarities in that, for example, both philosophies

128

agree on the situated contingent nature of knowledge and the assumption that observation is value-laden. Both philosophies also accept the social construction of reality, however, as detailed below critical realism can only agree with so-called "weak" constructionist arguments that our **knowledge** of reality is socially constructed, not the reality itself.

Schwandt (2000) suggests that the "qualitative enquiry" field, of which interpretivism forms a part, is more appropriately defined as a particular arena or site where a number of markedly different philosophical and methodological approaches reside. Despite the significant differences he sees the arena as sharing a "general rejection of the blend of scientism, froundationalist epistemology, instrumental reasoning and the philosophical anthropology of disengagement" (p. 190). He defines three basic epistemological stances within this arena - interpretivism/hermeneutics, philosophical hermeneutics and social constructionism. This chapter will concentrate mainly on the two brands of hermeneutics and will use critical realism to specifically critique aspects of interpretivism/hermeneutics. The different criteria for judging interpretive and realist research will then be contrasted.

Post-positivism

Blaikie (1993) describes interpretivism as a classical response to the dissatisfaction with positivist approaches. Hammersley (1995, p. 2) suggests that positivism makes some or all of the following assumptions:

- That what is taken to be the method of the natural sciences is the only rational source of knowledge

- That this method should be applied in social research irrespective of any supposedly distinctive features of social reality

- That quantitative measurement and experimentation or statistical manipulation of variables are essential, or at

129

least ideal, features of scientific research

- That research can and should be concerned with producing accounts which correspond to an independent reality

- That scientific knowledge consists of universal laws

- That research must be objective, with subjective biases being overcome through commitment to the principle of value neutrality

Such argument are often also a feature of what Hammersley (1990) terms as naïve realism.

Guba (1990) argues that positivism is a deposed paradigm – being replaced by the newer postpositivist, critical research and constructivist approaches. Blaikie (1993) argues that contemporary responses to the dissatisfaction with positivism include:

- Critical Theory

- Realism

- Contemporary Hermeneutics

- Structuration Theory

- Feminism.

These later, more contemporary approaches are still in the process of developing, many originators of these approaches still publishing. Blaikie's inclusion of contemporary realism as a response to positivism is an encouraging recognition that realist approaches have potential influence in this area. Blaikie sees that each of these later approaches can be seen to derive aspects of their development from the following classical approaches:

- Positivism

- Negativism

130

- Historicism
- Critical Rationalism
- Classical Hermeneutics
- Interpretivism

Bhaskar (1991) describes his philosophy of critical realism as addressing the crisis of positivism and being in opposition to critical theory and postmodernism. As detailed in the introduction Outhwaite (1987) argues that there is a degree of correspondence between critical theory and critical realism particularly in its common emancipatory focus.

Critical realism and interpretivism can also be seen to have commonalities in that the belief within critical realism that interpretivism is largely concerned with the transitive knowledge focussed dimension of reality suggests that there is potential to learn from interpretivism.

A Paradigmatic View

Interpretivism is often explained through reference to Burrell and Morgan's (1979) paradigmatic framework. A paradigm can be defined as a philosophical position containing various "mutually influential" ontological, epistemological, methodological and ideological 'sets' of ideas that have been formed into clusters "according to some worked-out argument or rationality" (Flood, 1990, p. 213). A paradigm represents a particular way of thinking or general perspective, but it has an implied popularity in that a paradigm would reflect a commonly held view of the applicable world.

An example of an important paradigmatic 'rationale' is Burrell and
Morgan's (1979) classic sociological framework for defining research
approaches in the social sciences arena (Figure 5). The model defined
sociological paradigms according to the assumptions they make about the
nature of social science and about the nature of society. Social science can be
seen to adopt an objective or subjective perspective and assumptions about
the nature of society can be seen to be emphasising radical change or
regulation. Burrell and Morgan's framework has proven to be useful in
defining perspectives on sociological investigations. In essence it compares an
ontological position (subjective/objective) with an ideological (politically
oriented) position (Conflict/Order). The objectivist position is to apply the laws
of the natural sciences to the social world; the subjectivist position is to
recognise the differing individual interpretations of the social world.

Burrell and Morgan argue that this framework allows for the definition
of four mutually exclusive views of the social world – each generating distinct
analyses of social life. Clearly the frame has more to it than meets the eye.
Essentially it is a statement of position from within the social science's 'world'.
As detailed in Figure 6 (from Gioia 1990) each position makes differing
assumptions about the main goals and primary concerns of research. For
example interpretivism is seen to have the goal to describe and explain in
order to diagnose and understand, its main concern as the social construction
of reality and interpretation.

I would argue that interpretivism does not have a major focus on
explanation - the major focus is to describe the particularity of the social
situation from the participant's perspective.

An observer would have great difficulty deriving such a detailed specification of four positions from a simple two dimensional division. This is due to the fact that it is essentially a framework to represent popular paradigmatic positions - in actual use it reflects the argument developed by Kuhn (1970) that it is impossible to communicate between different paradigms largely due to the existence of totally different language bases within each paradigm.

The argument is that comparisons between research studies that are based on different paradigmatic assumptions often make little sense as the different approaches generally have totally different meanings to the words that they use.

Critiquing interpretivism from a critical realist perspective potentially could suffer from this different language set; however, critical realism accepts many of the arguments of interpretivism and thus there is a basis for commonality.

	Emphasising Radical Change	Radical Humanism	Radical Structuralism
Sociological Perspective			
	Emphasising Regulation	Interpretive	Functionalist
		Subjective	Objective

The Nature of Social Science
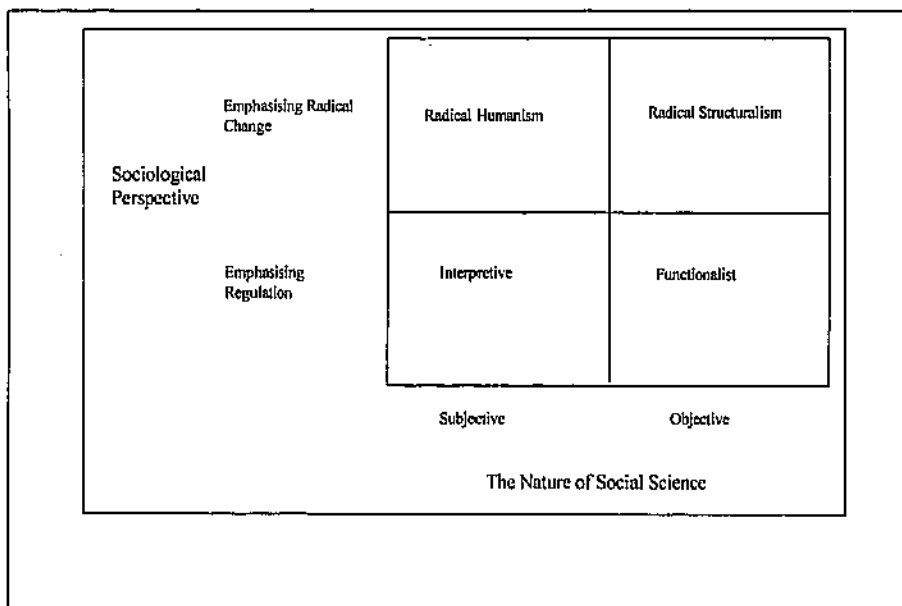
Figure 5: Burrell and Morgan's (1979) four Sociological Paradigms

Figure 6: The goals and concerns of the four sociological paradigms (from Gioia and Pitre, 1990, p. 591)

Flood and Romm (1996) argue there that is a practical need to incorporate diverse theories from different paradigmatic positions. They discuss four approaches to the incorporation of diverse theories and emancipatory principles in social research:

Pragmatism: the borrowing of various methods and parts of methods in a non-reflective manner based on experience with little thought given to underlying philosophical basis for such theory use.

135

Isolationism: this belief is exemplified by Burrell and Morgan's grid. Isolationism suggests a blind, all encompassing use of particular paradigmatic approaches in all situations. Burrell and Morgan's framework reflects the argument developed by Kuhn (1970) that it is impossible to communicate between different paradigms largely due to the existence of totally different language bases within each paradigm.

Imperialism: a similar approach to isolationism except that other paradigmatic approaches are recognised, but only to the extent that aspects of other approaches can be incorporated and absorbed into the predominant perspective.

Complementarism (or Pluralism): Flood and Romm (1996, p. 5) describe this approach as being embodied in the question: "How can theoreticians and interventionists find a way that satisfactorily allows us to theorise and act with *different notions of the world* while at the same time maintaining overall emancipatory practice?".

Critical realism as combining different notions of the world

I personally feel that critical realism answers this question quite well in that it combines different notions of the world in external realism and social constructionism, and also strongly supports emancipatory practice through its elevation of the importance of explanatory critique. Critical realism would argue strongly against pragmatism in that pragmatism ignores the important and critical of philosophy in research. Similarly isolationism would not be an option to be considered within a philosophy that sees all knowledge as fallible and contingent. Imperialism would also be inconsistent with critical realism as

the continued use of critical realism is seen as being dependent on its
continued success as underlabourer for practice.

Accessing multiple paradigmatic views of organisational situations has
been suggested as a means of providing a wider and a more multi-faceted
view on complex organisational situations. In a similar manner to Flood and
Romm (1996), Schultz and Hatch (1996) defines three metatheoretical
positions for doing multiparadigm research:

- paradigm incommensurability

- paradigm integration (ie. pragmatism/imperialism)

- paradigm crossing

They concentrate on paradigm crossing when they suggest a number
of different strategies for recognising and incorporating the various
paradigmatic approaches within a research approach. The first strategy they
discuss is labelled as sequential whereby one particular paradigmatic
approach is used to inform further development using another paradigmatic
approach (Lee 1991). A second strategy is labelled a parallel approach in
which different paradigmatic approaches are used in parallel and outcomes
compared for the different approaches. The ultimate aim is to maintain a
tolerant approach and to emphasise differences and conflicts between
paradigms rather than similarities.

A further strategy is a bridging strategy as exemplified by Gioia and
Pitre (1990) who use Burrell & Morgan's grid (Figure 5) to discuss the
assumptions of various paradigmatic approaches and suggest means of
bridging the paradigms in order to progress research that provides a more
comprehensive view of organisational phenomena. They argue that whilst the

fundamental assumptions of the various paradigms are at odds, the paradigmatic dimensions (subjective/objective and stability/change) are in fact continuum – thus creating a 'transition zone' at the proposed boundaries between the paradigms.

Simplistically I would see critical realism as residing within the centre, in that it is consistent with most of the goals and concerns suggested in Figure 6. This is not surprising given that the model has little to say on ontology and rather focuses on epistemological positions.

Whilst Burrell and Morgan's framework has been particularly influential in defining the underlying assumptions in social science, in general it can be seen to be founded on relativist arguments. For actually defining a research position it is unhelpful in that:

- It exaggerates the differences between the perspectives and the scale of their impact

- It is too restrictive in defining research positions

- It suggests that the major issues facing research can be solved by choosing one or more of the positions

- It discourages movement outside the paradigmatic position (ie encourages isolationism)

- It encourages simplistic methodological decisions by encouraging a choice between "black and white" stances on methodological issues rather than seeing such decisions as involving decisions on multiple smaller matters within a methodology

The examination of commensurability at the level of ontology, epistemology and methodology avoids the all or nothing stance adopted by considering overall paradigms. Detailed discussion of the philosophical position of each approach is important and necessary to fully understand their position and scope for accommodation.

Interpretivism

Klein and Myers (1999, p. 69) describe interpretive research from a practical, methods based focus:

> IS research can be classified as interpretive if it is assumed that our knowledge of reality is gained only through social constructions such a language, consciousness, shared meanings, documents, tools, and other artifacts.

Clearly this definition is not enough to distinguish such an approach from contemporary realist approaches.

Walsham (1993, p. 4) suggests that interpretive methods of research focus on understanding the context in which the information system is placed and how the information system influences and is influenced by that context. He states:

> Interpretive methods of research start from the position that our knowledge of reality, including the domain of human action, is a social construction by human actors and this applies equally to researchers. Thus there is no objective reality which can be discovered by researchers and replicated by others... Interpretivism is thus an epistemological position, concerned with approaches to the understanding of reality and asserting that all that knowledge is necessarily a social construction and thus subjective (p. 5)

The critical realist would have little objection to any of Walsham's claims, whereas it would have a major problem with Orlikowski and Baroudi (1991 p. 13) who assert that interpretivism requires that reality itself be seen as a social product:

> Interpretivism asserts that reality, as well as our knowledge thereof, are social products and hence incapable of being understood independent of the social actors (including the researchers) that construct and make sense of that reality

Critical realism and Weak/Strong Social Constructionism

The two definitions can be seen as an example of weak constructionism and strong constructionism. Critical realism has no problem with the weak constructionism demonstrated by Walsham but it does have difficulties with the strong constructionism demonstrated by Orlikowski and Baroudi in their claim that reality itself is a social product (not just our knowledge of reality).

Schwandt (2000) describes constructivist's perspective on knowledge as being "not disinterested, apolitical and exclusive of affective and embodied aspects of human experience, but [is] in some sense ideological, political and permeated with values" (Schwandt 2000, p. 198).

Such a definition is in line with critical realist arguments. Critical realism presupposes ontological realism and epistemological relativism in that it agrees that reality can only be known under particular descriptions. However it denies "judgemental relativism" – the view that one cannot judge between different discourses and decide that some accounts are better than others. Critical realism suggests that, whilst difficult, researchers can gain some sort of understanding of different discourses. The realist sees relativist argument

> that commensurability is always impossible as exaggerating the case and unfortunately sometimes serving to protect particular discourses from external criticism. Certainly there has been much written concerning relativism and perhaps, as Smith and Deemer (2000) suggest, given that "the God's-eye view is no longer a realizable hope, relativism, in some form or another, is a consequence that is inescapable" (p. 877).

Orlikowski and Baroudi (1991) see interpretivism, positivism and critical approaches as being the three major philosophical positions adopted within the IS field. As detailed above, this thesis argues for a fourth philosophical position representing contemporary realist approaches. Lane (1994) describes interpretivism as attempting "to illuminate social action by offering an account of the acts of rational people and the subjective meaning that people ascribe to their acts in order to create meaning for their conduct. The social world, viewed from the interpretive perspective, is being constantly created by individuals via processes of dialogue, negotiation, and learning; social reality is then an emergent property of the actions of individuals" (p. 112). Lane places the soft OR and soft system approaches within this interpretive frame.

Interpretivism and Reality

Walsham (1995) discusses three different ways of viewing reality:

- External realism which considers reality as existing independently of our construction of it

- Internal realism which views reality as an inter-subjective construction shared between individuals

- Subjective idealism which sees reality as a personal construction of each individual

141

He suggests that interpretivist research in the IS area has tended to concentrate on the last two positions. Myers (1997b) argues such divisions are less important than how researchers *address* that reality:

> ...in interpretivism, one may or may not assume that an independent reality exists...What is foundational is that all interpretivists assume that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, shared meanings and instruments. None of these are neutral and all have a profound impact on what one can see and measure. (p. 241).

For the critical realist one must be explicit concerning stance on reality, ontological issues being of paramount importance. Under Myers definition an interpretivist can also be a critical realist since critical realism also assumes that access to reality is a social process.

As will be discussed in later chapters on the SSM Walsham's definition of internal realism is consistent with the SSM concentration on shared understanding. SSM is often said to be based on interpretivism but a closer examination might suggest that it is based on social constructionism which has a less individual focus.

Similarly Probert (1997) argues that it is important that researcher's define their stance on reality. He disputes the "facile tendency to treat information systems as, by and large, subjective constructs" (p. 48), suggesting that clearly information systems do have objective, touchable realities.

142

Miles and Huberman (1994) argue for a critical realist approach to qualitative analysis:

> We agree with interpretivists who point out that knowledge is a social and historical product and that "facts" come to us laden with theory. We affirm the existence and importance of the subjective, the phenomenological, the meaning-making at the centre of social life. Our aim is to register and "transcend" these processes by building theories to account for a real world that is both bounded and perceptually laden, and to test these theories in our various disciplines. (p. 4)

They describe their approach to qualitative analysis as being closest to Bhaskar's transcendental realism. Social phenomena, "such as language, decisions, conflicts and hierarchies, exist objectively in the world and exert strong influences over human activities because people construe them in common ways. Things that are believed become real and can be enquired into." (p. 4).

Myers (1997a) sees the philosophical base for interpretive research as being hermeneutics and phenomenology. Hermeneutics is generally translated as the science of interpretation. Smith (1998, p. 166) argues that "a common theme in hermeneutical or phenomenological accounts of social life is the identification of meanings, intention and context of the author of a text or the social actor in his or her natural setting. The focus of analysis is the social and historical conditions in which a specific set of ideas is located". Interpretivism sees it as possible to objectively understand the subjective meaning of action from the actor's point of view (termed *Verstehen* – an empathic identification with the actor). To do this, interpreters need to employ various methods to allow them to step outside their historical frames of reference.

Phenomenology is generally described as gaining an understanding of the essence of a situation, its presupposition being "that the world we live in

is created in consciousness, in our heads... the outside world has meaning only through our consciousness of it." (Craib, 1992, p. 98). The social world is built up via a complex range of typifications which are organised into "meaning contexts. The process of the determination of meaning relies on the researcher "setting aside what we normally assume we know and tracing the process of coming to know it. This setting aside of our knowledge is referred to sometimes as the 'phenomenological reduction' "(p. 98).

The anthropomorphic fallacy

Bhaskar (1991, p. 33) would term the idea that we create the world "in our heads" as an example of the anthropomorphic fallacy - the wrongful definition of being in terms of human being. For the realist reality cannot be defined as some sort of attribute of humans.

The epistemic fallacy, which defines being in terms of knowledge of that being, is seen by Bhaskar as a special case of this fallacy (see chapter 5)

Hermeneutics is heavily dependent on the concept of the hermeneutic circle:

> We understand the meaning of an individual word by seeing it in reference to the whole of the sentence; and reciprocally, the sentence's meaning as a whole is dependent on the meaning of individual words. By extension, an individual concept derives its meaning from a context or horizon within which it stands; yet the horizon is made up of the very elements to which it gives meaning. By dialectical interaction between the whole and the part, each gives the other meaning; understanding is circular. (Palmer, 1969, p. 87)

144

The basic question in hermeneutics is "What is the meaning of a text?" as Taylor (1976, p. 153) suggests:

> Interpretation, in the sense relevant to hermeneutics, is an attempt to make clear, to make sense of an object of study. The object must, therefore, be a text, or a text-analogue, which in some way is confused, incomplete, cloudy, seemingly contradictory - in one way or another, unclear. The interpretation aims to bring to light an underlying coherence or sense

Originally developed as a means of investigating historical texts, in more recent studies it has come to also provide a useful tool for the interpretation of social situations, read as texts. Such definition as that provided by Taylor above emphasises the use of hermeneutics to elucidate ill-understood (or abnormal) situations. The *making sense* or interpretation aims to describe the object in terms and language that are understandable (or normal) to the targeted social group.

Philosophical Hermeneutics

Myers (1994) suggests that the pure hermeneutics on which interpretivism is based accepts outcomes uncritically and does not attempt to understand them within the context of existing social institutions and structures. He suggests that a better approach is that of *dialectical hermeneutics* which, in contrast, questions the objectivity of the hermeneutic analyser and the concerned participants and thus adopts a more critical, reflexive stance.

Dialectical or critical hermeneutics accepts that preconceptions and prejudices must always exist, largely consequent on social conditioning. Critical hermeneutics "emphasises both the subjective meanings for individual actors and the social structures which condition and enable such meanings and are constituted by them" (Myers 1997, p. 250). Critical hermeneutics is

145

termed a *constitutive process theory* that bridges the traditional *pure* hermeneutic approach and critical theory as espoused by Habermas and others.

Dialectical hermeneutics combines aspects of critical theory and interpretive/hermeneutic theory and requires the researcher to "not merely accept the self-understandings of participants, but seek to evaluate critically the totality of understandings historically, and in terms of changing social structures". He uses Table 2 to describe the differences between the three approaches.

Table 2: The theoretical basis for dialectical hermeneutics (from Myers 1994, p. 57)

Theory	Primary Focus	Description
"Pure" hermeneutics	Meaning, intentions	Interpretive, "subjective"
Critical theory	Contradictions, unintended results	Critical, "objective", historical
DIALECTICAL HERMENEUTICS	Social reality, intended and unintended consequences	Interpretive and critical, subjective and objective, historical

Critical realism and philosophical hermeneutics

Myer's framework attempts to synthesise important features from critical theory and hermeneutic philosophy in order to describe how the information system can become in effect a "steering mechanism" whereby the information system becomes a means by which organisational power-brokers impose their will on the organization "without proper legitimation" (Myers and

Young, 1997, p. 227). Such a definition is very close to the critical realist conception of a mechanism except that Myers framework would have such mechanisms reside within the transitive dimension rather than have the necessary solidity and reality required by the realist.

Myers suggested dialectical hermeneutic framework encourages a recognition of social and structural possibilities but its hermeneutic foundation does not provide the necessary reality or solidity to, for example, examine how such structures and mechanisms may change over time. Bhaskar criticises both hermeneutics and Habermas' critical theory for the lack of consideration given to the ontological domain. For Bhaskar the adoption by Myers of a critical element to pure hermeneutics would not help to address this shortcoming.

Judging Realist and Interpretive Research

Critical realism is based around ontological realism and epistemological relativism. It is thus particularly difficult to define criteria for assessing such research – how does one incorporate a realist ontological dimension and a relativist epistemological dimension in a judgement? Given that judgement involves the assessment of knowledge claims one would suggest that criteria based around epistemological relativist argument will be most important, however, it is clear that the ontological dimension so important to the realist must also somehow be included. Smith and Deemer (2000) discusses the problem of criteria in an "age of relativism". They suggest that:

> There is no possibility of theory-free observation, the duality of subject and object is untenable, no special epistemic privilege

147

can be attached to any particular method or set of methods and we cannot have the kind of objective access to an external, extralinguistic referent that would allow us to adjudicate from among different knowledge claims (p. 879)

They adopt a relativist argument and claim throughout the article that they are in opposition to the neorealist/quasifoundationalist (both terms seem to me to have negative connotations in that they imply to me a lack of seriousness) suggestions on this issue. Yet, the neorealist also argues for epistemological relativism and agrees with the relativist that we cannot step outside our own experience to provide objective accounts of situations; reality can only be known under particular descriptions.

The major difference between the critical realist and the relativist is that the critical realist suggests that epistemological relativism does not, however, imply judgemental relativism – the belief that we cannot make a judgement between accounts from different discourses. A major foundation within critical realism is a belief in the progressive development of theory based around refutation of less successful explanatory theory. It is argued that science (and social science) as such is not possible otherwise. The possibility of making judgemental evaluations are a necessary condition for scientific practice and fundamental to the critical realist argument.

Smith and Deemer, in arguing for a relativist view, suggest that universal criteria for judgements cannot exist yet they suggest that "judgements must be made and must be argued and justified", and similarly "that we must all live with uncertainty and contingency does not mean that we can dismiss commitment and abandon judgement" (p. 888). Such a stance is not dissimilar to that of the critical realist and suggests that there is potential for commensurability between the relativist and realist.

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148

<u>Judging hermeneutical accounts</u>

In judging interpretive accounts how does one evaluate whether an account represents a good interpretation? As Sayer (2000, p. 45) argues the answer is related to conceptions of truth. Conventionalist theories of truth define truth in a relativist fashion as being whatever a community agrees it is. Given this definition one of the main criteria for the evaluation of any such interpretation must be the acceptance by the targeted socio-historically situated group for which the research is written. Prasad (1997) specifies some components of such plausibility:

> Plausible accounts refer to ethnographic writings that are convincing not only because they pay attention to detail, but because the overall narrative incorporates the viewpoints of multiple actors and ties these together in a culturally coherent and articulate fashion . . . Many features can contribute to the plausibility of the research narrative including the development of a strong story line, evidence of the researcher's involvement in the field, a sense of historical context and a coherent weaving of disparate events within the field (Prasad 1997, p. 108).

The goal of quantitatively orientated researchers is usually presented as being to generalise findings to diverse populations and time. In contrast many earlier qualitative researchers have tended to ignore or reject the issue of generalizability (Schofield 1990). Yet generalizability or transferability in some form seems a useful target. Guba and Lincoln (1981) argue that generalizability in qualitative research should be replaced by a concept of "fittingness". In order to appreciate the "fit" the reader of qualitative research must be able to analyse the degree to which the researched study matches their own (the "fit"). A logical consequence of this is that qualitative research needs to be "thick" in their description of context since without such rich description the reader will not be able to make an informed judgement as to whether the conclusions drawn from the research are applicable to their own area.

Yet exhaustive case accounts can end up being very positivistic in their approach if they are presented as implying that such exhaustive and in-depth analysis derives the "truth" of the situation. Such an argument is positivist in nature as Knights (1996) suggests:

> ...if the case study approach is to avoid sliding back into positivist frameworks, it has to assert a role for itself other than the pursuit of accurate representations or exhaustive and comprehensive narratives. For otherwise, it simply subscribes to those ontological and epistemological assumptions about a 'fixed' and ' objective' reality waiting to be discovered and recorded by the researcher that were the impetus for a radical alternative to positivism in the first place. (p. 234)

Klein and Myers (1999) (bravely?) list a set of principles for conducting and evaluating interpretive research:

1. The Fundamental Principle of the Hermeneutic Circle – the pre-eminent role played by the hermeneutic circle within interpretive accounts needs to be recognised

2. The Principle of Contextualization

3. The Principle of Interaction between the Researchers and Subjects

4. The Principle of Abstraction and Generalization – the revelations from the data need to be related to general theory

5. The Principle of Dialogical Reasoning – requires sensitivity to the possibility of contradictions between the theoretical pre-conceptions guiding the research and the story emerging from the data.

6. The Principle of Multiple Interpretations

7. The Principle of Suspicion

They suggest that "interpretive researchers need to write an account that is not only interesting, but also plausible and convincing" (p. 79). The set of

principles that they provide is directly targeted at improving the plausibility and cogency of their accounts.

This plausibility and cogency obviously assumes a reader from within a hermeneutically directed frame as the realist reader would not have a strong requirement for recognizing, for example, the fundamental principle of the hermeneutic circle.

Garratt and Hodkinson (1998, p. 533) argue that such pre- definition of universal criteria can be very limiting as, in effect, it restricts and defines the research approach:

Any pre-specification of universal criteria is in danger of foisting on research artificial categories of judgment, preconceptions of what research should be, and a framework of a priori conditions that may be impossible or inappropriate to meet - at least in some cases. One inevitable result of such lists is that they police what can be done.

Klein and Myers appreciate this argument and suggest that their list not be used in a prescriptive manner. They feel that having the list is better than having none at all and suggest that there is a need for some sort of standard within interpretive writing. They argue that the listing of such principles might avoid wrongful judgement of what in fact is good interpretive writing and can also encourage important argument on the philosophical grounding of interpretive work.

Realist arguments

The realist would argue that this focus on plausibility as a major evaluation criteria is a function of interpretivism's underlying conventionalist or instrumentalist conception of truth. Conventionalist theories of truth define truth in a relativist fashion as being whatever a community agrees it is. In

contrast the realist suggests that accounts can be judged as "better" than others in terms of their explanatory power.

How can the realist argue that one theory is "better" than another

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The defeatist post-modernist (and extreme relativist) tends to argue that the world is so complex that nothing lasting or generalizable can be expected. The critical realist has exactly the same view about the complexity of the world but they suggest that for science to be possible there must be the ability to make progress in understanding. Such progress requires the possibility of judgemental evaluations across different discourses. This perspective respects the rational thinking of the human agent and suggests that despite the daunting nature and complexity of the world, reliable knowledge can be gained but such knowledge is fallible and open to change.

The judgement of realist writings is more related to what Sayer (2000, p. 43) terms as "practical adequacy":

> ...truth might better be understood as 'practical adequacy', that is in terms of the extent to which it generates expectations about the world and about results of our actions which are realized. Just how practically adequate different parts of our knowledge are will vary according to where and to what they are applied.

Does "practical adequacy" support the inductive reasoning that Bhaskar disparages?

According to my way of thinking isn't this the inductive reasoning that the critical realist disparages?? As Blaikie suggests "induction consists in starting from a theory, deducing from it predictions of phenomena, and

152

Hammersley (1992,1995), from a neorealist stance, emphasizes the
concepts of plausibility and credibility. He sees the concept of plausibility as
concerned with the issue of whether we judge a claim likely to be "true",
given our existing knowledge. The concept of credibility involves a
consideration as to whether the claim "is of a kind that we could reasonably
expect to be accurate, given what we know about the circumstances in which
the research was carried out" (Hammersley, 1992, p. 70). As Garrett and
Hodkinson (1998) suggest these concepts hide a subtle realism in that they
suggest a comparison against firstly, existing knowledge and secondly, the
external reality in which the account is placed.

Hammersley's suggestion avoids foundationalist argument in that such
a perspective avoids the use of criteria lists independent of time and place.
Certainly the judgement of plausibility and credibility has a considerable
element of subjectivity but it also includes some aspects of the external reality
on which realism depends. Maxwell (1992) makes similar claims for judging
the validity of accounts in suggesting that the validity of an account depends
"not in the procedures used to produce and validate it, but in its relationship
to those things that it is intended to be an account of" (p. 281 as quoted in
Smith and Deemer, p. 880).

In contrast to Maxwell's suggestion, Miles and Huberman (1994) very
much concentrate on the procedures used to produce and validate an account
when they propose a number of methods to encourage the validity of a
particular account. Their text on *Qualitative Data Analysis* implies that if one

153

follows the defined analytic technique and method one will be able to produce better results. Such an argument suggests that this conclusion is independent of particular time and place. They suggest that they adopt a critical realist stance when they propose five overlapping themes in assessing realist and interpretive studies:

> the objectivity/ confirmability of qualitative work; reliability/ dependability/ auditability; internal validity/ credibility/ authenticity; external validity/ transferability/ fittingness; and utilisation/ application/ action orientations (p. 277).

In line with critical realist argument such a perspective includes both realist and interpretive considerations but it does not, in my view, adequately reflect the separation within critical realism between the knowledge focused dimension and the real ontological dimension. The reality of a research situation is not properly reflected in that their proposals seem to imply universal criteria being applicable across time and place. In my view, their text needs to reflect a greater concentration on the context in which the research takes place.

Miles and Huberman place a high emphasis on confirmability in that they see an important component of good research as its confirmability. "Reasonable colleagues" (p. 262) double-checking the case should come up with similar findings and some sort of reasonable common conclusions. Assessment of research is often measured against such detailed lists as those of Miles and Huberman. For example Guba and Lincoln (1981) present a list of necessary tests of rigour for any research project and then go on to discuss how these requirements are addressed in a social (or naturalistic) setting (refer Table 3).

154

Table 3 Tests of Rigour (from Guba and Lincoln 1981, p.104)

ASPECT	SCIENTIFIC TERM	NATURALISTIC TERM
Truth Value	Internal Validity	Credibility
Applicability	External Validity	Fittingness
	Generalizability	
Consistency	Reliability	Auditability
Neutrality	Objectivity	Confirmability

The reader standpoint in judgemental criteria

For the interpretive writer the elevation of plausibility as a judgemental factor must also elevate the importance of the reader of the research. As detailed above, Garratt and Hodkinson (1998) argue that whilst there has been a lot of research done on recognising and accounting for researcher standpoints, there has been little investigation as to reader standpoint, particularly with respect to their judgement of criteria for evaluating the read research study. They suggest that a Gadamerian perspective suggests "our ways of seeing, perceiving, and understanding the world are played out from a position within the present, yet coloured by tradition bequeathed from the past" (Garratt and Hodkinson 1998, p. 528). Such argument denies that we (as readers) can move outside our **own** social and historical position in judging or reading research claims.

They argue that "from a Gadamerian hermeneutical perspective, reader standpoint and the nature of the research are mutually important in making judgments about research and can only be artificially separated" (p. 524). Research writers generally target a particular audience and the author's writing content and style has in mind the potential reader attribution of the piece of research. Any consequence of such a perspective on the research writing needs to be recognised and made evident.

155

The effect on my research of targeting the IS arena.

For myself, my "target" community is the IS community. This concentration is reflected in the examples I provide and the vignettes used to indicate the usefulness of critical realism (ERP description, the use of SSM, the SoSM, Emancipation etc).

This concentration on the IS community is also reflected in the depth of discussion on theoretical issues since critical realism is a relatively new approach in the IS arena and thus needs to be well supported.

Similarly since I am applying critical realism to an arena different from the social sciences arena in which it originated I need to extend the traditional arguments from within the social sciences arena to the targeted IS readership.

Garrett and Hodkinson (1998) suggest that such criteria lists serve no useful purpose anyway as judgement is ultimately in the hands of the reader. Such argument is based around Gadamer's philosophical hermeneutics in that judgement is always made within the social and historical position of the interpreter or reader:

> Gadamer's analysis suggests that although the content and form of a research report are significant, they are not in themselves central to the experience of reading and understanding that report. We do not understand a report by slicing it up, in the way that many lists of criteria implicitly suggest. This is because those sliced parts of the whole report cannot be understood except in relation to that whole and vice versa. Similarly neither the report nor its parts can be effectively separated from the

context within which the reading takes place. Rather, the meaning of a report is derived within and through the experience of reading itself.

The process of judging the research would be integral to Reader's experience of the text, and the choice and application of criteria, whether conscious or tacit, would emanate from the text, from the dispositions of Reader, and from the historically, socially, and culturally situated interactions between the two (Garratt and Hodkinson, 1998, p. 529).

From this perspective it is the **experience** of reading the text that provides a means for the reader to arrive at a summative evaluation; any pre-specified evaluation criteria would only get in the way of such an aim.

The tainted reputation of BPR

With respect to this thesis a particular example comes to mind. Over the early period of this thesis (mid 1990's), BPR or Business Process Re-engineering was very much the important business issue of the time. Many organisational members claimed that to achieve a positive judgement on business proposals it was essential that BPR be included somewhere in the proposal. In more recent years BPR has gained a somewhat tainted reputation in that it has come to be associated with corporate downsizing and seems to have lost its way. It will be very interesting to view historical assessments on the importance of BPR. From a critical realist perspective it would be interesting to examine this "BPR" movement as a social structure and identify some of the associated mechanisms by which it influenced organizations and society.

Garratt and Hodkinson argue (1998):

> All criteria for judging research quality contain within them a
> defining view of what research is. It follows that any attempt to
> pre-select the criteria against which a piece of research is to be
> judged is also predetermining what the nature of that piece of
> research should be. (p. 525)

They suggest that the final judgement as to research quality must reside with
the reader, such reader judgement being an integral part of experiencing the
text and necessarily drawing heavily on the accumulated wisdom of the
tradition in which they reside. For example, Richardson (1994) suggests that
reflective narrative accounts need to be judged against literary criteria such
as coherence, versimilitude and interest.

Denzin (1997) reflects the movement away from a concentration on
the research techniques when he suggests that research writing must follow
four non-negotiable ethical norms "stories should be accurate (do not lie) and
balanced, reporting should avoid harm (nonmaleficence), readers have the
right to know certain information, and writers have a moral obligation to
make public the course of action they favor" (p. 280 as quoted in Garratt and
Hodknison, 1998, p. 533-534). Truth telling must always be carefully balanced
against nonmaleficence. The criteria suggested by Richardson (1994) and
Denzin (1997) are important in narrative accounts and both police to some
extent the form that research writing can take.

Judging critical realist research – the importance of the research object and
purpose

Miles and Huberman's criteria list suggests that a rigorous
methodological focus is the best way to ensure credibility, yet as detailed
above it cannot be the sole judgemental criteria. Such a view ignores the
practical requirements of research in that often we do the best we can, given
difficult research environment. The adoption of such criteria across time and
place without careful consideration of the context is counter-productive in

158

determining quality research. As Sayer (2000) suggests one cannot expect more precision than the object will allow.

Similarly another measure of research quality often ignored is whether the research process and outcomes are consistent with the intended use. In an ideal world the extensive validity checking proposed by Miles and Huberman is desirable. However, few researchers would have the time and resources to religiously follow such prescriptive guidelines. Often accommodations need to be made for practical considerations. The proposed use for the research must be one of the criteria for determining the extent of methodological rigour. For example, if the outcome of the research is intended to provide guidelines for the implementation of an emergency service for ambulances then there can be little argument against extensive and detailed validity checking. If the target of the research is to define hypothesese for further evaluation there may be an argument for an emphasis on innovation and illumination rather than the use of rigorous and detailed validity checking. A different way of thinking about interpretive understanding is "to regard it not as a matter of finding more or less true or adequate or authoritative interpretations, but as a matter of adding to the range of interpretations, thereby enriching the ongoing creative conversations". (Sayer, 2000, p. 46). The nature of the research object and research purpose must play an important role in evaluating and conducting the research

Critical realism professes to support an explanatory focus for research. The account must therefore provide a credible and plausible explanation of the research situation. The cogency of the knowledge claims must also be given extra weight in a critical realist examination since it strongly supports a role for philosophising and logical argument. The knowledge claims made must also be consistent with the underlying object of the study.

For example, in the case example used in this thesis access to the organization was limited at the senior level over the period of the outsourcing. This was due to the politically charged environment at that time. The political turmoil at the time also affected the way that staff interacted with me. For example, one staff member refused to be interviewed in his office in case he was overheard and requested no recording of the interview.

People were concerned with their positions and wary of making statements that could be used against them. Whilst not ideal there was nothing I could do about this restricted access, it was a function of the environment at the time. Reading Miles and Huberman's text could only encourage me to discount the interviews I gained over that period but, in fact, those interviews were perhaps the most valuable and insightful of the case. Certainly Miles and Huberman's suggested methods are valuable and useful but often practicalities encroach. I would have liked to have seen more emphasis on the research situation in their text, particularly given their professed realist stance.

If criteria such as those suggested by Miles and Huberman are to be applied independent of context then there would likely be very little research done in contentious environments. Perhaps this is the reason that we see very few detailed ethnographic accounts of radical change processes. They are difficult to do both in terms of getting access and in maintaining traditional

160

research methods and values. Many such studies (as is mine predominantly)
are historical in that interviews are made before and after the change event

Conclusion

This chapter has primarily a philosophical focus in that it examines the
philosophical underpinnings of interpretivism and compares such
underpinning with that of critical realism. Comparison is made at the level of
philosophy rather than at the level of consequent theory. A discussion follows
as to the various criteria under which an account may be judged and some
suggestions made as to the difference in judging critical realist studies. The
usefulness of criteria lists for ensuring research acceptance is questioned as it
is argued that the important reader attribution is not made on this basis
anyway. Reader judgement is made from within their own socio-historical
context based around the general *experience* of reading the text.

The argument is also made that criteria lists cannot be applied
universally - judgement as to the success of an explanation requires a
consideration of the object that is being investigated and the purpose for
which the explanation is to be used. As will be detailed in the next chapter
the explanatory target of critical realism suggests that examination of the
cogency of the theoretical argument is important in judging research claims.
The next chapter will discuss the different roles for theory within an
interpretivist and a critical realist approach and suggest an appropriate
methodology for examining the case under investigation.

Chapter 5

Contrasting Roles For Theory In Interpretivist And Realist Research

"Theory is good but it doesn't prevent things from existing"
from Craib (1992)

Introduction

Interpretive and realist approaches have fundamentally different approaches to the role of theory in research. In this chapter the differing views on theory are highlighted and explained with reference to the case study under investigation. For the interpretive researcher investigation is primarily focussed at the event level - it suggests a concentration on events rather than the deeper structures and mechanisms that are of greater interest to the realist researcher. For the interpretive researcher theory is more used as "sensitizing device" to view the world in a certain way (Klein and Myers, 1999, p. 75). The target for theory use is illumination and thus the question as to which theory should be used in preference to another is difficult to answer.

For the critical realist the major concentration is ontological and under this view a theory is only as good as its usefulness in explaining the object under study. The realist model of explanation involves three basic steps (Outhwaite 1987, p. 58) "the postulation of a possible mechanism, the attempt to collect evidence for or against its existence and the elimination of

possible alternatives". According to this view some theories are better than others, judgement based upon their explanatory power.

The chapter will firstly examine some of the professed weaknesses within interpretivism and use critical realism to critique a widely known interpretivist framework for selecting IS research approaches, Galliers (1991). The chapter will then examine the different ways that theory is used within an interpretive approach and a contemporary realist approach. This discussion will then provide a foundation in Chapter 7, 8, 9, and 10 for examining the organizational situation documented in the case example.

Weaknesses of Interpretivism

Orlikowski and Baroudi (1991, p. 18) summarise the weaknesses of the purely interpretive approach:

> First, the interpretive perspective does not examine the conditions, often external, which give rise to certain meanings and experiences. Second, research in this perspective omits to explain the unintended consequences of action, which by definition cannot be explained by reference to the intentions of the humans concerned...Third, the interpretive perspective does not address structural conflicts within society and organisations and ignores contradictions which may be endemic in social systems...Finally, the interpretive perspective neglects to explain historical change; that is, how a particular social order came to be what it is, and how it is likely to vary over time.

The effects of a lack of structural recognition within the case example

In the case example under study, in the early stages of the project the likelihood of outsourcing was not recognised by me or the people I interviewed, in fact the information business plan did not include this expectation within the scenario planning that they followed. My adoption of interpretivism encouraged me to understand the organisation in their own terms but, in my view, it did not adequately provide a basis for understanding what was really happening. This ignorance of external structures had serious consequences for the staff concerned as the IS Manager points out when they were first asked to study the possibility:

So we really told the staff don't worry, it's an exercise that the government wants to go through and that we know what the results and figures will show there's no way people can come and run it any cheaper than we do. And that wasn't true, the exercise was "this gets outsourced, whether it was economic or not". It took a while for me - I believed, and my director believed that this was a paper exercise

The IS Manager at the time felt a degree of personal responsibility for the outsourcing decision:

I put them through a tremendous amount of pressure to benchmark, they didn't want to do it; we spent a lot of time, a lot of money, a lot of people put a lot of effort in. To say that the department was euphoric when we got the results was an understatement; the reaction from the organisation was fantastic. We were up on cloud nine

> It was clear that the internal staff did not see that outsourcing was a real option. When it became obvious that despite the successful benchmarking the department was still to be outsourced many in the department actually blamed the manager for allowing it to happen. This suggestion was not contested by the manager as he felt such argument would be ineffective and not accepted by staff anyway. Structures have real and important effects and it proved to be a very difficult period for the manager and staff.

Interpretivism focuses on individual meanings and micro level context and as such structure has little relevance. Myers (1994, 1995) recognises this shortcoming in arguing for combining critical theory and interpretivism to allow a clearer recognition of social structures and their conditioning effects. Such a combination is an improvement on interpretivism alone but the model lacks a clear ontology and does not provide identified structures with a necessary reality.

The immediacy of interpretive analysis and its concentration on the micro level organisational situation does not encourage the easy recognition of external structural impacts. It similarly does not provide an environment for the examination of such structures and mechanisms to explain observed happenings.

Theory Selection in Interpretive Research

Trauth (2001) discusses the factors influencing her choice of qualitative methods. She suggests that the following factors are important:

- The research problem

165

- The researcher's theoretical lens

- The degree of uncertainty surrounding the phenomena

- The researcher's skills

- Academic politics

She suggests that the most important factor may well be the research problem - "what one wants to learn suggests how one should go about it" (p. 4). A particular example is her own study of Ireland's information economy in that she wished to uncover the "story behind the statistics", this aim thus lending itself to interpretive approaches. The theoretical lens also clearly has an important part to play in that it largely defines the choice of methods - the choice of lens often driven by a desire to avoid the shortcomings of positivism. High levels of uncertainty in the problem situation leading to difficulties in positivistic measurement also suggest an interpretive approach. Researcher's skills can also define what methods are to be used, as can academic politics.

Trauth is presenting an argument from with an interpretivist stance and thus it is perhaps unfair to criticise the conclusions from within a totally different stance. However the critique is useful in that it highlights some of the fundamental differences between the critical realist and the interpretivist. As detailed in Table 4 the factors affecting the decision to adopt a qualitative approach can be roughly divided into two areas - a transitive epistemological dimension and an intransitive ontological dimension.

Table 4: Important factors in the decision to adopt qualitative methods
(based on Trauth, 2001)

Primarily epistemological concern	Primarily ontological concern
The researcher's theoretical lens	The research problem
The researcher's skills	The degree of uncertainty surrounding the phenomena
Academic politics	

Similarly Orlikowski and Baroudi point out

> Research approaches adopted by all researchers... are
> influenced to a greater or lesser extent by the various
> institutional contexts within which they are trained and
> work...They are heavily influenced by the doctoral program
> attended, the agendas of powerful and respected mentors, the
> hiring, promotion and tenure criteria of employing institutions,
> the funding policies of agencies, the rules of access negotiated
> with research sites, and the publishing guidelines of academic
> journals.

For the critical realist most of the factors suggested by Trauth (2001)
and Orlikowski and Baroudi (1991) can be seen to be primarily concerned
with the transitive epistemological aspects of the research process rather than
the intransitive ontological aspects. The interpretivist does not make this
distinction, as Orlikowski and Baroudi (1991 p. 13) suggest:

> Interpretivism asserts that reality, as well as our knowledge
> thereof, are social products and hence incapable of being
> understood independent of the social actors (including the
> researchers) that construct and make sense of that reality

For the critical realist this argument reflects the epistemic fallacy in that it confuses the transitive and intransitive dimensions. The realist believes that reality can never be a social product since it pre-exists the transitive, changing social analysis of it. Our perceptions of reality change continually but the underlying structures and mechanisms constituting that reality are "relatively enduring". The aim of realist research is to develop a better understanding of these enduring structures and mechanisms. Ontological factors must therefore be the primary factor in defining research approaches - this requirement necessarily forcing a strong philosophical commitment. For the realist academic politics and traditional researcher skills and background should not define research approaches - the nature of what is to be investigated is the primary concern.

A critique of Galliers (1991) framework for selecting research approaches

In order to better understand the critical realist perspective it is useful to critique an interpretive framework for selecting IS research approaches. Galliers (1991) proposes a taxonomy for providing guidance in selecting information system's research approaches (see Figure 7). The framework suggests that by selecting the object of one's research (society, group or individual) or the purpose of the research (theory testing, theory building or theory extension) one can get a feeling for which research approach would be most suited. Although not stated it is clear that this framework is grounded from within an interpretive perspective - an analysis from within a critical realist perspective provides some interesting observations and comparisons.

	Modes for traditional empirical approaches (observations)							Modes for newer approaches (interpretations)		
	Theorem Proof	Laboratory Experiment	Field Experiment	Case Study	Survey	Forecasting & Futures Research	Simulation and Game/role Playing	Subjective/ argumentative	Descriptive/ Interpretive	Action Research
Research Object										
Society	x	x	?	?	✓	✓	?	✓	✓	?
Organisation/ group	x	?	✓	✓	✓	✓	✓	✓	✓	✓
Individual	x	✓	✓	?	?	?	✓	✓	✓	?
Technology	✓	✓	✓	x	?	✓	✓	?	?	x
Methodology	✓	x	✓	✓	✓	x	✓	✓	✓	✓
Research Purpose										
Theory Building	x	x	x	✓	✓	✓	✓	✓	✓	✓
Theory Testing	✓	✓	✓	✓	?	x	?	x	?	✓
Theory Extension	?	?	?	?	?	x	x	x	?	?

Figure 7: A taxonomy of Information Systems Research Approaches (based on Galliers, 1991)

The first observation critical realism would make is that one cannot break social investigation into the study of society, group and individual – critical realism argues for a relational perspective in that it sees society as "an ensemble of structures, practices and conventions that individuals reproduce or transform" (Bhaskar, 1991, p. 76). Society is a "skilled accomplishment of active agents" (p. 4) and the flat ontology suggested by the concentration on a single aspect of social situations (society, group or individual) would restrict explanatory power.

Another issue with Galliers' two dimensional framework is that the "approach" is compared against the object and the purpose of the study – this must therefore neglect the important relationship between the purpose and object. As Sayer (1992, p. 4) argues the choice of method or approach must be "appropriate to the nature of the object under study and the purpose and expectation of the study". Galliers' model does not reflect this aim (and being two dimensional obviously cannot without a deal of difficulty).

As detailed in Figure 8, Sayer suggests that the purpose of the study (intensive, abstract or generalizable research) helps to define the particular underlying aspects of reality the realist researcher should concentrate on (and thus can define the approach to be used). For example, abstract theoretical research does not specifically deal with events apart from as possible outcomes whereas generalisation tends to concentrate at the level of events - seeking regularities and common properties at this level. Intensive research for the realist involves the consideration of particular contexts and combinations of isolated structures, mechanisms and actual events.

The primary focus for the realist is firstly to identify the type of research (and thus the underlying objects of research), this then helping to

define which approaches should then be adopted – the approach is secondary. For the realist it is implied that once we appreciate the level of examination required any number of approaches can be adopted and applied in different novel ways – the target being to unearth the real structures and mechanisms within a particular research situation. Galliers' model is more interpretive in focus – concentrating more on the interpretive power of differing approaches rather than the underlying purpose and object.
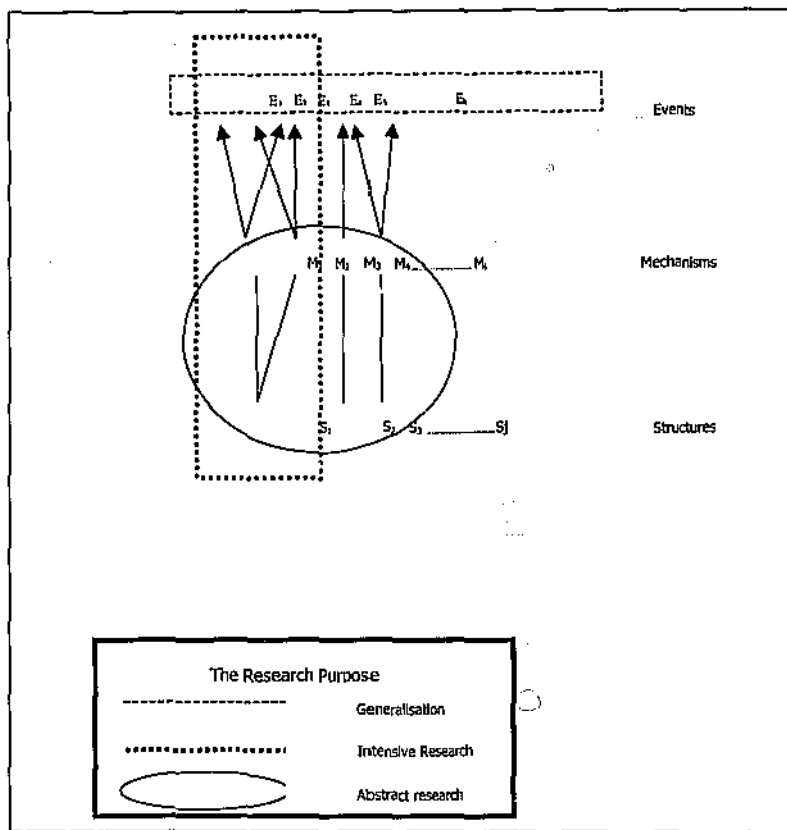
Figure 8: The objects of research (events, structures and mechanisms) and the associated purposes (generalisation, intensive research and abstract research) based on Sayer, 1992, p. 11

Many empiricists argue that it is not possible to distinguish between the things we experience (the actual) and the mental constructs we use to understand the empirical level. Perceptions (the empirical) and events are indistiguishable. This so-called flat ontology is the foundation of much post-modernist theory. It also denies the existence of anything that cannot be observed - the real (or deep) does not exist for the empiricist. As detailed in Figure 8 for the realist events (and our perceptions of them - the empirical) are not possible without the underlying realm of structures, mechanisms and their interaction.

Galliers' framework also implies that the methods of the sciences **can** be extended to social investigation in that, for example, it allows for the use of laboratory experiment and theorem proof to investigate social situations. This is in line with the view of the critical realist who believes that the methods of the sciences can be (carefully or critically) extended to the study of the natural or social sciences.

The realist would, however, suggest that the inability to create "closure" in the social arena fundamentally affects the conclusions reached and the applicability of the different scientific approaches. For the realist the inability to create experimental closure requires that the primary aim of research must be explanatory (the equivalent of Galliers' theory building?) rather than prediction (Galliers' theory extension?) or falsification (Galliers' theory testing). Predictive use of theory and theory testing is limited within the critical realist approach due to the inability to create closure in social situations. This necessitates that any derived theory from social investigation can only indicate "tendencies" rather than clear prediction. Similarly falsification on the basis of social observation is never fully possible.

Consistency is a major aim of realist research – the tripartite connections between ontology, methodology and practical theory being most important. As Archer (1995, p. 17) argues: "the social ontology endorsed does play a powerful regulatory role vis-à-vis the explanatory methodology for the basic reason that it conceptualises social reality in certain terms. Thus identifying what there is to be explained and also ruling out explanations in terms of entities or properties which are deemed non-existent... Such consistency is a general requirement and it usually requires two-way adjustment". This two-way adjustment requires a contingent ontology in order to work in that if a particular non-consistent theory works very well it may well raise ontological and philosophical questions that would need to be addressed.

Under a critical realist view theories cannot be selected haphazardly and applied randomly to enlighten some particular aspect of a research situation. As Archer (1995, p. 28) argues from a critical realist perspective:

> Once social analysts have been assured that ontology and methodology are separate issues, why should they not conclude that they can merely select the methodology which pragmatically seems most useful to them (thus sliding rapidly into instrumentalism), because if ontology is a separate concern, then it need to be no concern of theirs.

Rowland (1995), from an interpretive perspective, usefully argues that any research study reflects a particular worldview composed of at least three philosophical layers - ontological beliefs, epistemological assumptions and methodological choices:

> Ontological beliefs are our beliefs regarding reality (or what it is), epistemological assumptions are our assumptions regarding how we come to know about our world (i.e. our sources of knowledge, or how we make sense of reality); and methodological choices are the means we choose in attempting to achieve desired ends. ...Particular ontological beliefs lead us to make particular epistemological assumptions... That is, our

174

explanations of how people come to know about the world depend on what we believe the world to be. Likewise, particular epistemological assumptions lead us to choose certain methodologies over others. We choose to carry out activities that fit with how we assume humans come to know. (Rowland, 1995, p. 278)

This explanation of the research process is similar to that for the realist except for the fact that it emphasises epistemology in preference to ontology. For the realist ontological beliefs are of more immediate concern than epistemological assumptions. In order to develop the research process the first and foremost target is to define what reality is seen to be as this then directs us towards how we look at it (methodological choices) and impacts on models for how we make sense of it (epistemological assumptions). Rather than Rowland's "We choose to carry out activities that fit with how we assume humans come to know" the realist would argue that "We choose to carry out activities that are consistent with what we believe the world to be".

The Research Question in Interpretivism

For the interpretive researcher Morse (1994) suggests that the research strategy to be used is largely determined by the purpose of the study, the nature of the research questions and the skills and resources available to the researcher. She uses Table 5 below as a typical guide as to how to identify the most appropriate "qualitative" strategy to use.

Type of Research Question	Strategy	Paradigm	Method	Other Data Sources
Meaning Questions	Phenomenology	Philosophy	Audiotaped "conversations", written anecdotes of personal experiences	phenomenological literature, philosophical reflections, poetry, art
Descriptive questions	Ethnography	anthropology	unstructured interviews, participant observation, field notes	documents, records, photography, maps, genealogies, social network diagrams
"Process" questions - experience over time or change	grounded theory	Sociology	interviews (tape recorded)	participant observation, memoing, diary
Questions regarding verbal interaction and dialogue	ethnomethodology; discourse analysis	Semiotics	dialogue (audio/video recording)	observation; field notes
Behavioural questions				
Macro	participant observation	anthropology	observation; field notes	interviews;photography
Micro	qualitative ethology	Zoology	observation	Videotape; note taking

Table 5: Comparison of the major types of qualitative strategies (from Morse 1994, p. 224)

Morse (1994) then uses Table 6 to indicate the type of research questions that may be addressed by the different qualitative strategies.

Strategy	Research Question/ Focus	Participants/Informants	Type of results
Phenomenology	What is the meaning of arriving home?	Travellers arriving home; phenomenological literature, art, poetry and other descriptions	in depth reflective description of the experiences of "what it feels like to come home"
Ethnography	What is the arrival gate like when an international plane arrives?	travellers, families, others who observe the setting,	description of the day to day events at the arrival gate of the airport
Grounded Theory	Coming home; reuniting the family	travellers, family members	description of the social psychological process in the experience of returning home
Ethnoscience	What are types of travellers	those who observe the setting daily	taxonomy and descriptions of types and characteristics of travellers
Qualitative ethology	What are the greeting behaviours of travellers and their families	travellers and their families	description of the patterns of greeting behaviours

Table 6: Qualitative strategies related to question type (based on Morse, 1994, p. 225)

The underlying question being addressed in this thesis was difficult to define in the early stages. The initial method was ethnographic in focus and was stated as to describe the changes underway at the organization. Such a generalized questioning was consistent with Morse (1994) who argues that "as qualitative inquiry is often tenuous in the early stages (in that the investigator does not have extensive knowledge about the setting), the researcher should make the question as broad as possible rather than prematurely delimit the study with a narrow question. Narrowness distracts

177

the researcher from seeing the whole picture." (Morse 1994 p. 226). As the Information Business Plan fell by the wayside with outsourcing the study moved away from being ethnographic in focus and became more directed towards a less intensive field study supported by structured interviews and document analysis.

Grounded theory provided the basic tool for analysing the research data and an analysis tool called Atlas TI was used to determine common themes running through the data. Over the period immediately prior to outsourcing it became clear that I was missing a large part of the story in focusing on ethnography and interpretive study. I came to believe that there was a need for a better underlying theory for the study and moved towards a more realist focus.

Case Study Research - Description or Explanation?

Schaller and Tobin (in press) argue the for importance of description in case study research:

> the telling of stories is the purpose of a case study and the narrative could be the case study's most compelling attribute. Narrative is a method whereby a story is crafted from events and the experiences of the writer, and refers to discourse that attempts to create understanding by telling a story that answers the question "what is going on here?". In this way narrative can contribute to the creation of understanding and knowledge in a more inviting manner for the intended audience.

From a realist perspective Sayer (2000) differentiates between narrative and analysis:

> The power of the narrative derives from the way in which the depiction of events chronologically, in a story, gives the appearance of a causal chain or logic and the sense of movement towards a conclusion. Analysis - defined in realist rather than positivist terms - is concerned with abstracting common, widely replicated structures and mechanisms which

endure throughout a number of concrete histories. The power of analysis derives from its ability to explain much by little, but a necessary condition of this power is that the structures are indeed general and pivotal (p. 141 -142)

Sayer considers that structural analysis tends to concentrate more on those structures which are widely replicated and more context-independent. It seeks *general* explanatory theories and is more concerned with the conditions of existence of particular structures than their specific contingent origins. For example, in attempting to explain the rise of Silicon Valley the question would not be "How did Silicon Valley develop?" but "What are the necessary conditions for the development of industrial agglomerations of a certain kind?".

> Such an emphasis is reflected in the change of focus within the thesis case example. The research question moved from "How did the Information Business Plan develop?" to "Under what conditions is it possible for a successful IT Department to be outsourced?". The second question provides an opportunity to propose general structures that may be extendable across organizational settings. This extension needs to, however, be carefully argued and proven. The strategy of this thesis is closer to Sayer's description of analysis rather than realist concrete study (see below).

Along with structural analysis Sayer sees the other major form of realist examination as *realist concrete study* based around strongly contextualized narrative. For analysis, theory has an important role to "explain much by little" whereas for concrete research the synthesis of multiple determinations requires what can be seen as a "retreat from theory" - "we come to admire the highly developed and multiple sensitivities of the author,

179

the richness and subtlety of the observation, the awareness of the contextuality, and the command of the language *period*, rather than of a supposedly 'theroetical' language" (Sayer, 2000, p. 147).

Sayer quotes Abrams (1982, p. 162) in highlighting the disagreement over the appropriateness of narrative or analysis - those in the analysis camp worry about "the dereliction of method that results from excessive sensitivity to detail", whereas the narrative camp worry about "the dereliction of scholarship that results from excessive attachment to theoretical generalisation". He personally sees the narrative as suffering from a tendency to under-specify causality in its hermeneutic emphasis on seeing society **only** like a text requiring nothing more than interpretive understanding. He argues that although this understanding is indispensable, it is not sufficient in itself to explain material change: causal explanation is still necessary.

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Darke, Shanks and Broadbent (1998, p. 275) describe case research as designed to provide descriptions of phenomena, to develop theory or to test theory:

> Case study research has often been associated with description and with theory development, where it is used to provide evidence for hypothesis generation and for exploration of areas where existing knowledge is limited.

Craib (1992) argues for the importance of explanation (ie theory development) in comparison to description and notes the increasing emphasis on description. This concentration on description rather than explanation has grown out of "a general scepticism about the possibility of explanations, of a totalising theory, and this in turn has led to theory concerning itself with description" (p. 26). He argues that much of postmodern theory is more concerned with description than explanation.

Hammersley (1992) distinguishes three fundamental approaches – description, explanation and "theorising". Explanation concentrates on a single event or situation in trying to show why a particular event or feature occurred, whereas theorising aims to test and develop theory that would apply in a more universal setting – the events themselves are not the primary focus.

For Hammersley description, explanation and the use of theory are all interrelated, however, "descriptions cannot be theories since they represent objects and events in particular space-time locations; whereas theories are about types of phenomena, wherever their instances occur. On the other hand, all descriptions are theoretical in the sense that they involve concepts and are structured by theoretical assumptions" (p. 27). Descriptions cannot be made independently of theory, otherwise description would need to include *everything* related to the phenomenon – theory must be used to limit the features of the phenomena that can be considered relevant. "Description is never "pure", a direct and unchallengeable representation of the world. All "facts" involve theoretical assumptions." (Hammersley, 1992, p. 34).

Observation as influenced by theory not determined by theory

The critical realist acknowledges this argument but suggests that it is important that such influence is not over-emphasised. For the critical realist theory *influences* description but does not *determine* it. This argument allows an element of judgement to enter into research in that it suggests that the researcher has the potential to recognize and react to potential biases and influences.

The critical realist agrees with the interpretivist that observation cannot be theory neutral and suggests that theory "does not merely 'order facts' but makes claims about the nature of its object" (Sayer, 1981, p. 8). The theory-laden nature of observation and narrative tends to negate any rigid distinction between description and explanation, as description itself being, theory-laden suggests that most descriptions end up being explanations of sort anyway.

For Hammersley, descriptions tell us about some of the features of a phenomenon; explanations tell us why it has those features. He sees explanation as directed more towards theory generation and theory testing, whereas descriptions are seen as the first stage in the development of theory.

Case Study as Method?

Yin (1994, p. 13) defines a case study as:

> an empirical enquiry that investigates a contemporary phenomena within its real life context especially when the boundaries between phenomenon and context are not clearly evident.

The intention of case study research is generally proposed as to gain an "in-depth" understanding of the concerned phenomena in a "real-life" setting.

Some authors refer to the case research "method" (Yin 1994) and regard the decision to use a case approach as a statement concerning the methods to be used, yet "case research" can be completed in a multitude of different ways as Cavaye (1996, p. 227-228) argues:

> Case research can be carried out taking a positivist or an

182

interpretive stance, can take a deductive or an inductive approach, can use qualitative and quantitative methods, can investigate one or multiple cases. Case research can be highly structured, positivist, deductive investigation of multiple cases; it can also be an unstructured, interpretive, inductive investigation of one case; lastly, it can be anything in between these two extremes in almost any combination.

Darke et al (1998) suggest that the use of the case study in research is useful in newer less well-developed research areas particularly where examination of the context and the dynamics of a situation are important. They argue that the "case study research method" is not particularly useful "where a phenomenon is well understood and mature, where constructs exist already and are well developed, where understandings of how and why the particular phenomenon occurs is not of interest, and where understandings of the contexts of action and the experiences of individuals in a single setting is not relevant" (p. 280).

Such a view of case research denies the fact that whilst a particular research object or phenomenon may be well understood from within a particular ontological and theoretical perspective having this knowledge should not deny the importance of alternative perspectives. In fact, as argued by Hammersley (1992) with respect to ethnographic research much of recent ethnography is concerned with "making the familiar strange" – "we often discover that there are features of even the most familiar settings of which we are unaware, recognition of which may subtly, or even dramatically, change our understanding of those settings" (p. 33). Theory obviously plays a critical role in allowing a sufficiently different perspective to "make the familiar strange".

This thesis assumes that "case study" is not a statement regarding research method but is more a statement concerning the object of study. Given

> this stance we can then define a multitude of different approaches to the investigation of the "case study".

Theory Use in interpretive case studies

From an interpretivist perspective Walsham (1993) argues:

> Theory is both a way of seeing and a way of not-seeing. A particular theoretical perspective blinds us to other perspectives at its moment of application. A second, and more subtle, criticism of theory is that in any real human activity, particularly that involving others, we take action without the conscious use of theory, and certainly the action is conditioned by more than any singular theory...we are conditioned by theories whether we like it or not, since we are exposed to a multiplicity of theories from our earliest childhood and we are undoubtedly influenced by them. (Walsham 1993 p. 6)

Schultze, Myers and Trauth (2000) argue that one of the major shortcomings of interpretivist enquiry is the a priori use of theory. In their view many interpretivist accounts pre-select theory which, they suggest, "raises concerns not only about unwarranted theoretical bias in researchers' interpretations, but also about the researcher's propensity to question his/her assumptions in the process of making sense of the data" (p. 507). Yet is this such an issue within interpretivism? Interpretivism sees theory as primarily a means for illumination rather than explanation, thus novel use for theory is encouraged. Certainly the need for a critical perspective on conclusions is essential but is a priori use totally to be avoided?

The decision to avoid a priori theory ignores the benefits achievable in adopting a theory that the researcher knows well. There are three distinctive "approaches" to theory use for the interpretive researcher:

- No theory - Grounded Theory suggests that pre-defined theory has the potential to contaminate research and the theory should "emerge" from the data.

- Single Theory – Alvesson (1996) suggests that the theory in use be "entrenched in the interpreter's person and his or her political-ethical position" (p. 15).

- Multiple Theories – Walsham (1993, 1995) suggests the use of theory as a "scaffold", to be discarded when no longer needed.

No theory - Grounded Theory

Grounded theory reflects more of a methodological approach rather than a "theory" as such. A grounded theory approach (Glaser and Strauss 1967) suggests that, in the initial stages of research, a pre-defined theory is not recommended. A case study involving the use of a grounded theory approach requires that the theory "emerge" from the data. The primary aim is to construct theory from the collected field data; in fact as quoted by Walsham (1995 p. 77) it recommends against doing too much literature research prior to commencement as such a strategy may work against the definition of new theory:

> ...carefully to cover "all" the literature before commencing research increases the probability of brutally destroying one's potentialities as a theorist (Glaser and Strauss 1967, p. 253)

Grounded theory aims to avoid contaminating theory - the primary aim is to construct theory which is 'grounded' in the collected field data. Such an approach tends to minimise the importance of theory and scientific method in directing the research process. As Layder (1993, p.46) argues, this view suggests that theorising simply moves the researcher away from the empirical world and into an alien abstract world.

185

The intention of grounded theory is very much set within the interpretivist frame whereby the researcher is directed towards a faithful rendition and interpretation of the researcher situation from the participant's perspective without the potential contaminating influence of theory. A grounded theory approach aims for an objective stance on the part of the researcher by suggesting the removal of any epistemological frame for viewing the research situation, yet, as Roman (1992 p.571) argues, such an approach reveals positivistic assumptions in that it argues that the descriptions given **can** be separated from the researcher's prior assumptions.

Much of ethnographic case research suffers from this same underlying assumption. It is often argued that a "truer" picture of a research situation can be derived by getting closer to the participants and by spending more time in the field. The researcher is presented as having a privileged and all-knowing position from which they can provide the "one true description" (Hammersley 1992, p.24). Hammersley (1992) terms this form of argument as the representational model of research "the aim being to investigate and describe the social realm as it really is, beyond all presumptions and prejudices. Cultures, social systems or social worlds are assumed to be objectively existing phenomena present in the world and awaiting description." (p. 23). "...if we could only get rid of the barriers lying between us and reality, most obviously our cultural preconceptions, we would be able to see reality itself. Once these barriers have been overcome, once the veil has been lifted, once we have dug below the surface impressions, reality itself will be revealed." (p. 50). Hammersley terms this approach a naive realist approach in that it neglects the role that theoretical assumptions play in informing their descriptions or explanations – he argues that it is indefensible as all perception and observation is assumption-laden.

Grounded theory (and ethnography) can also be seen to reflect a single layer approach to theorising in that by requiring that theory emerge

from the data it sets the focus of research at a micro level and does not explicitly address the wider macro issues that may heavily impact the research situation. The focus on the "here and now" evident in grounded theory studies necessarily tends to ignore the historicality of any situation. It also tends to minimise the importance of wider (macro) social, structural and power issues in explaining the research situation. Layder (1993, p. 68) argues:

> ...the grounded theory approach must break away from its primary focus on micro phenomena. The very fixity of this concentration is a factor which prevents grounded theory from attending to historical matters of macro structure as a means of enriching...research on micro phenomena.

Whilst the intention of grounded theory is laudable, it's actual application is difficult. The requirement to avoid the use of theoretical frames and prior inferences suggests that the researcher should investigate *everything* related to the situation under study. In even the smallest research setting this is not feasible. The practical difficulty in applying the grounded theory approach is that even if attempts are made to keep the initial approach as unbiased and open as possible the data collected cannot emerge independently of the researcher's personal ideological and theoretical stance – data can never be neutral but will depend on researcher's ontological assumptions and the specific language of the world view from which they reside. For example, in an interview setting, the researcher will pose questions as to the research situation. Such questions can be pre-defined and posed in a non-leading manner (for example – what do you think about [the research situation]?). However, the responses elicited will be filtered by the researcher's own beliefs and the further progress of the interview will be influenced by such beliefs.

Single theory - "authentic" theory use

Alvesson (1996) argues it is important that researchers primarily use theories "with which they are intellectually familiar and for which they feel an

emotional preference"(p. 206). This is in marked contrast to the suggestion from Walsham (see below) that theory use be regarded as a scaffold, to be dismantled and discarded when it has served its purpose. Alvesson (1996) argues there are difficulties in using multiple theories:

> In my view, a qualified understanding [of a social situation] ... calls for concentration and a good deal of work on the theory or theories in use; it is also necessary that the theory or theories be entrenched in the interpreter's person and his or her political-ethical position. There are thus normally limits to the theories – which ones and how many – that a researcher can successfully command, at least in the context of interpretive and discursive studies which call for a deeper feeling for the theoretical framework employed than is required in rational-analytic approaches. (p. 15)

Alvesson suggests a "deep" knowledge of the theory in use is more preferable than a shallower use of multiple theories. Alvesson (1996) argues that a deep knowledge of a theory can provide useful insights :

> A powerful theory has a strong interpretive capacity, i.e. it can indicate aspects and dimensions of the phenomenon studied which go well beyond common sense (p. 204)

Powerful, "deeply understood" theories can invite non-evident conclusions that may not in fact meet expected "common sense" interpretations.

Alvesson's approach to theory is related to questions of personal *authenticity*. Probert (1997, p. 53) quotes Golomb (1995, p. 11) in describing the concept of authenticity as "a protest against the blind, mechanical acceptance of an externally imposed code of values". Authentic can be defined as genuine, valid or bona fide and authenticity in research or consultancy suggests a personal commitment to research approaches.

Probert (1997, p. 51) reflects on two dilemmas he faced whilst acting in a consultancy role:

- Should I use a methodology which has embedded values that I do not agree with?

- Should I use a methodology which, in my judgment, is wholly inappropriate to the circumstances pertaining in the organisation?

Such questions can also be applied to theory use in non-consultancy research. For example, questions such as: Can I use critical theory if I fundamentally do not accept the perceived negative implications of the theory and deny the importance of "emancipation"? Can I use a soft systems approach if I do not believe that an Information System is fundamentally a socially constructed artefact? Should I use a methodology that is heavily focussed on power issues, even if I feel that such an approach will not significantly help to explain the unitary situation I perceive as evident within the organisational situation? These are complicated, perhaps, ethical issues that need to be addressed by individual researchers. A researcher using Alvesson's approach would be encouraged to use theories to which they have a personal commitment and thus would allow for a more "authentic" use of theory.

Multiple theory - theory as "scaffold"

Walsham disagrees with the grounded theory approach whereby theory is regarded as a contaminating influence to be removed. Walsham's view is that informed and critical use of theory is useful. He acknowledges and confronts the biasing effect of theories and argues that the use of theory should be treated as a "scaffold" where the scaffolding is removed once it has served its purpose – "A good framework should not be regarded as a rigid structure, but as a valuable guide to empirical research" (Walsham 1993, p. 71). This helps to avoid the potential danger of the researcher only seeing the

189

theory and being blinded to new ways of thinking. He argues that there is no correct or best theory:

> In the interpretive tradition there are no correct and incorrect theories but there are interesting and less interesting ways to view the world. (Walsham, 1993, p. 6)

Walsham sees that theory use in interpretive studies can be less rigid than in positivist studies, the theoretical literature primarily serving to act as a source for inspiration and to assist in the understanding of complex social situations. Walsham (1995) argues:

> The motivation for the use of theory in the earlier stages of interpretive case studies is to create an initial theoretical framework which takes account of previous knowledge, and which creates a sensible theoretical basis to inform the topics and approach of the early empirical work. (p. 76)

Walsham (1993) argues:

> Interpretive methods of research start from the position that our knowledge of reality, including the domain of human action, is a social construction by human actors and this applies equally well to researchers. Thus there is no objective reality which can be discovered by researchers and replicated by others...Our theories concerning reality are ways of making sense of the world and shared meanings are a form of inter-subjectivity rather than objectivity. (p. 5)

The argument against predictive theory use in social investigation

For the critical realist a major issue with social investigation is the inability to create closure - the aim of "experiment" in the natural sciences. Bhaskar argues that this inability implies that theory cannot be used in a predictive manner and can **only** play an explanatory role in social investigations since:

> In the absence of spontaneously occurring, and given the

190

impossibility of artificially creating, closed systems , the human sciences must confront the problem of the direct scientific study of phenomena that only manifest themselves in open systems – for which orthodox philosophy of science, with its tacit presupposition of closure, is literally useless. In particular it follows from this condition that criteria for the rational appraisal and development of theories in the social sciences, which are denied (in principle) decisive test situations, **cannot be predictive** and so must be **exclusively explanatory.** (Bhaskar, 1979, p. 27)

Bhaskar argues that the primary measure of the "goodness" of a theory is in its explanatory power – from Bhaskar's perspective, predictive use of theories is not possible in open social systems and therefore cannot be a measure of goodness. From this point of view theory can only be used as an explanatory tool – explaining events in hindsight.

Theory is to do with the transitive or representation domain and Bhaskar's realism suggests that a theory T_a is preferable to another theory T_b (even if they are incommensurable) if T_a can explain **under its description** almost all the phenomena T_b can explain under its description plus some phenomena that T_b cannot explain (Bhaskar, 1991, p. 19). This argument is consistent with Bhaskar's view of the conditional nature of philosophy (the "under its description") and supports methodological pluralism as Sayer (2000, p. 19) contends "Compared to positivism and interpretivism, critical realism endorses or is compatible with a relatively wide range of research methods, but it implies that the particular choices should depend on the nature of the object of study and what one wants to learn about it".

Critical realism and coercive situations

As Archer (1995) suggests "the nature of what exists cannot be unrelated to how it is studied...the social ontology endorsed does play a powerful regulatory role vis-à-vis the explanatory methodology for the basic reason that it conceptualises social reality in certain terms, thus identifying

191

what there is to be explained and also ruling out explanations in terms of entities or properties which are deemed non-existent" (p. 16-17).

For example if we conceptualise organizations as being one of either unitary, pluralist or coercive we are ruling out certain explanatory possibilities. One particular example is a downsizing situation - such a situation can be represented as coercive. Coercive situations are described by Midgley (1997) in terms of the **closure of debate** and the absence of an obvious higher power to arbitrate (p. 49). By endorsing a coercive ontology the researcher may deny the possibility of conciliation.

As Archer (1995, p. 17) points out "What social reality is held to **be** also **is** that which we seek to explain". Assuming a coercive situation may well suggest that an individualistic perspective would be most appropriate. In such a heavily charged coercive environment the moderating power of what Midgley (1997) calls a "higher power" (or structure in critical realist terms) is not seen to exist and the researcher may well be directed towards an individualistic or micro perspective to describe the interaction between participants. This might suggest that Berle's (1969) individualistic view on power would be a useful theoretical perspective:

> No collectivity of any kind in and of itself wields power. The ostensible power of a group extends from the fact that the group has been organised and has conferred decision-making power upon certain individuals formally or informally recognised as power holders. However it is attained, the expression of power can only be the decision and act of an individual. (p. 118)

In the light of current relational perspectives on power this view is old fashioned. It is a limiting view on power ignoring the consensual and relational aspect of power – "power is a matter of obedience, and ... nobody possesses power but is given it in the obedience of those who obey" (Mingers, 1995) – yet in the endorsed coercive environment obedience is an

192

unlikely event and therefore as detailed in Figure 9 below an individualist perspective may be deemed most appropriate.

The critical realist view on coercive situations is somewhat different in that they would see the coercive situation reflecting a dominant inequitable structure. The critical realist would emphasise the importance of unearthing such structures. Structural recognition plays an important role in explanatory critique, such critique reflecting the belief that the unearthing of inequitable structures is the first step in their demolition. Under this view structure is an important and fundamental issue that needs to be recognized. Under the critical realist view structure and agency are always important.

Yet as Sayer (2000, p. 28) notes "To some extent the emphasis given to structure and agency depends on the kind of research question being posed". A question such as "How did the organisation move towards outsourcing the IT Department?" would suggest an emphasis be placed on description and its associated micro-level agency focus. A realist question such as "Under what conditions is it possible to outsource a successful IT Department?" can only be addressed through consideration of the deep structures and mechanisms that caused the move to outsourcing. In this case a single level focus on events is harder to justify. The purpose of the research along with the nature of the research object must play an important role in progressing realist research.

Critical realism as a preferred approach for coercive situations?

In fact for coercive situations critical realist examination may provide a better basis for explanation than in pluralist situations. As in the coercive IT outsourcing example presented the argument for a governmental structure

is relatively easy to argue for as it is an obvious and clear imposition. In a more complex pluralist situation the presence of such a strong structure may well be less likely and harder to unearth and thus justify.

For example for the case under study it will be argued that a major cause of the move to downsizing and outsourcing was the wider governmental and economic structure shaping the need for privatisation. Examination of the outsourcing situation on a purely micro or individualist level could not have easily identified this external social structure, yet the identification of this structure was important in explaining the decision to outsource. It was also important to the personnel involved in the outsourcing move in that it provided a better understanding of the situation and therefore allowed a better appreciation of the emancipatory possibilities (see chapter 10).

As indicated in Figure 9 whilst, on first consideration, an individualist perspective may be considered most appropriate for a coercive situation in that it allows a careful analysis of the important individual interactions, I would suggest that an approach that recognizes both structure and agency would be more useful as this then allows a clearer recognition of potentially important inequitable structure/s. In my view, critical realism would provide a better explanatory basis in this case given the importance it gives to structures.

ONTOLOGY ENDORSED

	Unitary	Pluralist	Coercive
		Agency/ Micro/ Individualist	Agency/ Micro/ Individualist
IMPLIED METHODOLOGICAL FOCUS		AND	
	Structure/ Macro/ Collectivist	Structure/ Macro/ Collectivist	

Increasing importance of non-obvious structures
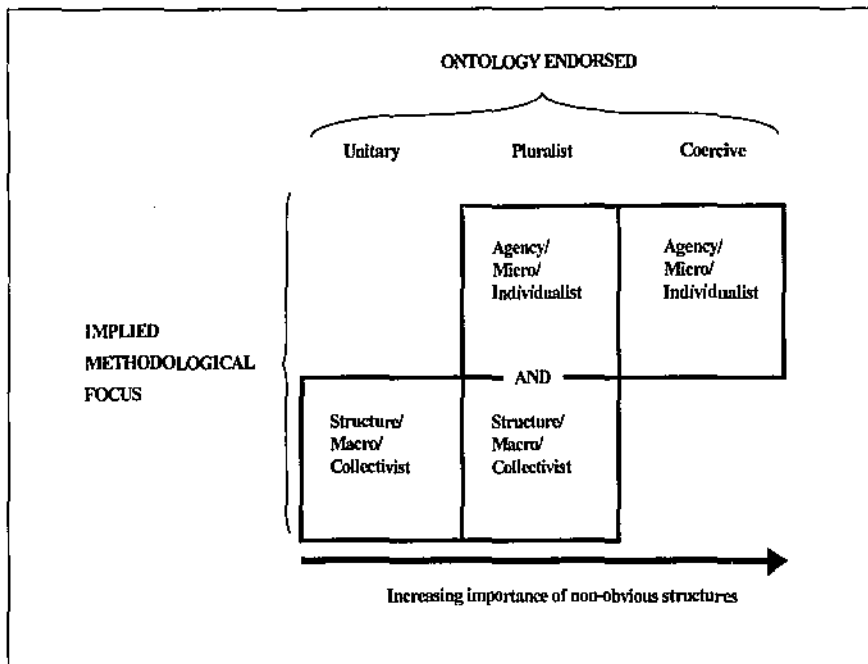
Figure 9: The contradictory methodological focus implied by adopting a particular ontology.

Adoption of a coercive ontology may well suggest an individualist concentration in data collection but require a structural recognition in order to fully analyse and understand the situation.

An explanatory role for theory

For the critical realist the major concentration is ontological and under this view a theory is only as good as its explanatory power. The realist model of explanation involves three basic steps (Outhwaite 1987, p. 58) "the

195

postulation of a possible mechanism, the attempt to collect evidence for or
against its existence and the elimination of possible alternatives". Using this
model Outhwaite suggests that we have a good explanation when

1. The postulated mechanism is capable of explaining the phenomenon

2. We have good reason to believe in its existence

3. We cannot think of any equally good alternatives

Yet as, Outhwaite (1987) suggests, this model is not good for selecting
between explanations of an object that is complex and over-determined,
where several alternative theories and mechanisms seem acceptable. In such
a case Outhwaite suggests that the usefulness of the explanation in wider
contexts should then play a role in evaluation.

Outhwaite (1987) also highlights the importance of ongoing theoretical
argument in realist research (p. 60):

> The realist emphasis on the legitimacy and importance of
> theoretical argument should not be understood to imply the
> depreciation of empirical research. What it does suggest, I
> think, is that such research cannot achieve useful results in the
> absence of theoretical reflection on the structuration of empirical
> data and a rejection of empiricism, understood as exclusive
> focus on social phenomena which are empirically observable and
> measurable.

This suggests that philosophizing and rational thought play an
important role in critical realist study.

Outhwaite argues that in the event that one cannot select between two
theories then the adoption of a particular theory may come down to selecting
that theory which encourages inter-theoretical discussion rather than

adopting a theory which closes off debate. As Bhaskar (1979, p. 59) similarly argues that discourse must play a vital role in a subject area where meanings and the understanding of meanings plays such an important part:

> The conceptual aspect of the subject matter of the social sciences circumscribes the possibility of measurement...For meanings cannot be measured, only understood. Hypotheses about them must be expressed in language and confirmed in dialogue. Language here stands to the conceptual aspect of social science as geometry stands to physics. And precision in meaning now assumes the place of accuracy in measurement as the a posteriori of theory. It should be stressed that in both cases theories may continue to be justified and validly used to explain, even though significant measurement of the phenomena of which they treat has become impossible.

The Critical Realist Method

Critical realism has things to say about the research object as well as the research method. It relies on retroduction as its methodological focus and thus defines the way that the research argument develops. Retroduction involves the postulation of social structures or mechanisms that make or have made a significant causal contribution to the social phenomena that the researcher is aiming to explain. The social structure or mechanism postulated must be then demonstrated to exist and its mechanisms explained in order to provide a convincing explanatory account. As Stones (1996, p. 37) suggests:

> Thus, to combine a real definition of an object and retroduction in an explanatory account means, in common-sense terms, that one makes an informed guess as to what is doing the causing (retroduction), gives a clear and detailed definition of what this causal element is (real definition) and then shows clearly that it is indeed doing a significant amount of the causing.

Such an approach has been open to postmodern criticism for its suggestion that a researcher could ever hope to delimate a historical or social process in so accurate and self-contained a manner that it could then be possible to trace a causal influence through a complex series of successive interactions. Yet for the realist an attempt must be made, even though such

197

explanation must be contingent and open to criticism. The realist, by accepting the notion that the world exists independently of our knowledge of it, recognises the fallibility of knowledge for if, by contrast, the world itself was solely a product of our knowledge how could it be fallible? As Sayer (2000, p. 2) argues:

> Realism is therefore necessarily a fallibist philosophy and one which must be wary of simple correspondence theories of truth. It must acknowledge that the world can only be known under particular descriptions, in terms of available discourses.

As detailed in earlier chapters, Kilduff and Mehra (1997) argue that there are two styles of postmodernism: the sceptical and the affirmative. "From the sceptical perspective all interpretations of phenomena are equally valid, and the world is so complicated that concepts such as prediction and causality are irrelevant. Everything is related to everything else so the search for causes or origins must be discontinued" (p. 455). In contrast the affirmative postmodernist "retains the possibility of making discriminations among competing interpretations." The affirmative postmodernist "would underscore novelty and reflexivity as it looks at the richness of difference and concentrates on the unusual, the singular and the original" (Rosenau (1992), p. 169 as quoted in Kilduff and Mehra (1997) p.456).

Stone (1996) from a realist perspective argues against the defeatism of the sceptical post-modernist. He celebrates the post-modernist emphasis on plurality and diversity and recognises the enormous difficulty in providing accurate accounts of the social world. He feels that "yes, the world is that complex; yes, it is often very hard to get at; yes, sociologists and other social scientists often claim an authority they have no right to; and, no, the defeatist postmodernists are not right to imply that the only alternative to a complete and total knowledge of a very complex world is a retreat into fiction". He argues that "precision and contextualized detail are called for in terms of deliniating the potential powers, both material and hermeneutic, of a social

object, and in terms of distinguishing the powers and influence of the specified social object from other causal influences" (Stones, 1996, p. 38).

Outhwaite (1987) suggests, however, that contemporary realism is "ontologically bold and epistemologically cautious" in that the realist appreciation of the richness and complexity of social life has not been matched by an increased sophistication in the necessary means to acquire knowledge of that complexity. Stones (1996) similarly argues that a realist ontology has specific and important methodological consequences in that the ontological richness and complexity assumed requires an associated recognition of the complexity involved in acquiring knowledge of this world. Such a recognition requires a continual commitment to caution, scepticism and reflexivity in the consequent knowledge claims made.

Stones (1996, p. 71) three ideal type distinctions in relation to the type of knowledge that particular theories contain:

- Single case: multiple case (generalising)
- Contextualizing: abstracted
- Agents conduct analysis: theorist's pattern analysis

A project emphasising agents conduct analysis would "include an interest in the hermeneutics of how social actors draw reflexively on their knowledgeability and motivation in choosing how to act", whereas theorist's pattern analysis defines "a research project that is not concerned with lay actors' conduct analysis but, rather, is interested in the researcher's analysis of social practices, from outside as it were" (Stones 1996, p. 70). Stones regards the first of each of these binary oppositions as the preferred ontological focus in his brand of contemporary realism ("past-modern realism"). The so-called "player model" of theory construction is the preferred

mode of operation whereby single contextualized cases are addressed "sometimes, but not always (depending on the question asked), including an analysis of the hermeneutic frames of meaning of social actors" (p. 71). Under the player model where studies move towards generalisations they so by "being parasitic on ... single, contextualized cases".

This is the target for chapter 7 in which I discuss how diffusion theory might be used to help understand the observed happenings at the Organization. Abrahamson's (1991) model derived from diffusion theory is modified based on the contextualized examination.

He contrasts "player theory" with "dreamer theory". The dreamer model of theorizing asks a question in relation to multiple cases abstracted from their specific contexts - cases are used as illustrative models of generalised trends without going into the contextualized and local specifics of any particular case. Despite the derogatory implication of Stone's metaphor he does see an important role for "dreamer theory" in that "the creation of dreamer theory should be seen as positive, as long as it remains reflexively vigilant as to its own hypothetical status. In principle, dreamer theory should be capable of being fleshed out and tested by players...it is when dreamers lose sight of the provisional, hypothetical nature of their conceptual innovations that they cease to be dreamers and become despots" (Stone 1996, p. 79). Even "dreamer" theory must be supported by contextualized examination.

In my view it is a pity that Stones did not pick a more respectful term for this type of theorising. As he argues dreamer theory does play an important role in theorising as it allows a "degree of imaginative freedom" by virtue of

the fact that it is released from "the rigours of playing at ground level" (p. 79).

Conclusion

The critical realist agrees with the interpretivist that observation cannot be theory neutral and suggests that theory "does not merely 'order facts' but makes claims about the nature of its object" (Sayer, 1981, p. 8). Critical realism as a philosophy supports methodological pluralism and is compatible with a relatively wide range of research methods, however as Sayer (2000, p. 19) contends "it implies that the particular choices [of methods] should depend on the nature of the object of study and what one wants to learn about it". According to Figure 6 above Sayer (1992) suggests that the purpose of the study (generalisation, intensive research and abstract research) helps defines the object of study (events, structures and mechanisms) which then gives an indication of the type of approach that can be used. That is, the nature of the object of study and the purpose for which the study is made help to determine the research approach.

For the interpretivist Galliers suggests in Figure 5 that the purpose (theory testing, theory building or theory extension) can define the approach as can the research object (society, organisation/ group, individual, technology, methodology). For the realist theory testing is not an option and many of the objects detailed by Galliers are considered to be co-dependent and incapable of separation.

··In my view.the choice of approach and underlying theory is harder to justify for the interpretive researcher since there are "no correct and incorrect theories but there are interesting and less interesting ways to view the world"

(see Walsham above). All sorts of issues thus can affect the decision to adopt a particular theoretical approach (such as supervisory leanings).

The difficulty involved in selecting a research approach for the case example

This was major sticking point in my own case as I had an enormous amount of difficulty in selecting a particular theory to examine the organization. The major difficulty that I saw with selecting a theory was that it then often implicitly defines the objects that one wishes to study. I had trouble with this concept in that I felt that the research object should have more say in such decision (CR supports this argument). The fact that I was relatively new to research may also have prompted this issue as I had no particular allegiance to any one theory. The figure below was drawn at that time and was intended to reflect the overwhelming confusion I felt at that time.
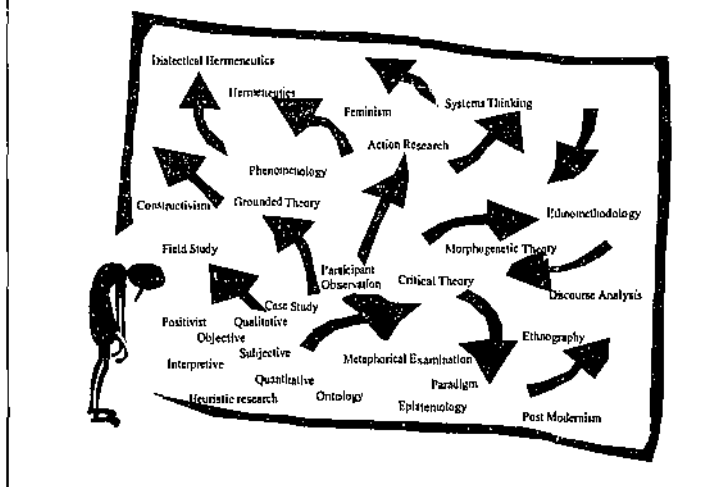
Figure 10: Where to Start? – Where should I go?

> Tesch (1990) provided a useful reference at this stage as it allowed a simple framework for defining the various interpretive approaches. She proposes a division based around the ultimate purpose of the study:
>
> Characteristic of language
>
> Discovery of Regularities
>
> Comprehension of the meaning of text/actions
>
> Reflection

For the inexperienced interpretive researcher the multiplicity of theories and approaches available is daunting and there seems to be few ways of justifying or rationalizing a particular approach. Perhaps it comes down to personal commitment as Alvesson argues. According to Alvesson deep knowledge of a single theory is preferable to a more superficial knowledge of multiple theories as it allows for the possibility of new and insightful perspectives on the research situation. This argument is in contrast to Walsham's view that a multiplicity of theory is the preferred alternative.

For the critical realist theory use must be consistent with the underlying object and purpose of the research. The development of research is dependent on a retroductive argument and thus largely defines the way that the research can move forward. The so-called "player model" of theory construction is the preferred mode of operation whereby single contextualized cases are addressed. As Stones (1996) argues, under the player model studies move towards generalisations by being parasitic on single, contextualized cases.

The adoption of critical realism as an underlying philosophy does restrict the options that the researcher can choose in that the philosophy has things to say about the objects of research as well as the nature of the research argument. The later chapters in this thesis demonstrate the practical consequences of such an approach and also demonstrate the rational nature of critical realist argument.

Chapter 6

The Role Of Metaphor In Interpretive And Critical Realist Examination

Introduction

This chapter demonstrates the important role that metaphor plays in critical realist examination. It examines the differing perspectives on metaphor and use examples from the case study to highlight particular issues. The chapter also highlights the way that metaphor provided a means to develop the underlying research for this thesis. As indicated in the introduction Klein and Myers (1999) argue that many research projects do not clearly define the emergent nature of the underlying research process "we are given little understanding of how the researchers' analysis developed over the course of the project. As it stands, we are presented with a finished piece of interpretive research with few indications of its emergent nature" (1999, p. 84). This chapter highlights how an appreciation of the difference between holism and atomism proved to be an important step in the development of the thesis.

Metaphor for the critical realist

Palmer and Dunford (1996) argue that a fundamental issue underlying the use of metaphor is a question related to organisational reality: is reality produced through metaphor, or is reality something that exists independently of metaphorical descriptions of it? Such a question is basically addressing one's stance on realism in that a defining feature of realism is its belief in the mind-independence of reality. As Palmer and Dunford go on to suggest the ontological question to be addressed in the use of metaphor is whether social reality exists independent of, and external to, individuals or whether social

205

reality is a cognitive construct that cannot not exist independently of the names, concepts and labels that purport to describe it (p. 695).

The critical realist would see the latter case as an example of the epistemic fallacy. They would argue that statements about social reality and statements about our perceptions of reality are fundamentally different and should not be confused.

Traditional realist approaches are considered to have little time for the use of metaphor. However critical realism suggests a vital role for metaphor in that it sees the use of metaphor as the only means by which we can understand possibly unobservable events. Metaphor is essential for the realist in that, as Schon (1963) describes, metaphor can be seen to work by treating something unfamiliar as something familiar, thereby changing our understanding of both in the process.

Metaphor can be seen to be useful in two ways – either as a representation tool or as a creative tool. As a representation tool the use of metaphor may act as a simplifying mechanism – making that which is unfamiliar familiar. The use of metaphor as a representational tool is a useful method within critical realist examination as Lewis (1996) argues:

> Critical realism asserts that the world investigated by science consists of objects that are structured and intransitive: structured in the sense that they are irreducible to the events of experience; and intransitive in the sense that they exist and act independently of their identification. That is, the world is constituted not only by events given directly in experience, but also by the unobserved and perhaps even unobservable entities, structures, mechanisms, and so on, which, existing and acting independently of scientists' knowledge of them, govern observable events and states of affairs. (p. 487).

Scientific theorizing depends heavily on explaining and theorizing objects beyond our experience. How can knowledge of such unobservable and perhaps un-experienced entities be possible? Lewis (1996) suggests that the knowledge of such entities must "come about through the transformation of pre-existing knowledge-like material" (p. 487). Metaphor must therefore be a fundamental tool in critical realist understanding of the natural and social science:

> Generative metaphor enables the scientist tentatively to attribute, independent of any prior understanding of the unobservables, relations of similarity and analogy between those inadequately understood entities, mechanisms, etc., and the subject matter of some better-understood domain of scientific inquiry, so that knowledge about the latter can be used to structure an understanding of the former. (Lewis 1996, p. 490)

For the critical realist metaphor is not a purely linguistic, explanatory tool - it provides a fundamental guide to future theorising by suggesting avenues for further exploration and providing terms for explanation of entities that may not be experienced.

Apart from solely a representational tool metaphor can also be used as a creative tool – an example being that of Morgan (1993). He argues for the use of an approach called Imaginization in which metaphor is used to effectively create what he terms as a new reality for participants by allowing a fresh perspective on organizational situations. His approach encourages involved personnel to develop their own pictorial images of organizational issues and by so doing to help make clear their underlying assumptions and feelings. The images developed are to be regarded as *mirrors* and *windows* to encourage new perspectives on issues and to open possibilities for creative action. Morgan argues that if one can look in the mirror and see oneself in a new way, the mirror can become a window to a new reality as it allows one to see the rest of the world with a fresh perspective (Morgan ,1993, p. 288). The use of metaphor in such a

manner is not dissimilar to that described by Flood and Jackson (1991, p. 50) where they use various systems metaphors as organising structures to help managers think creatively about their enterprises.

Morgan and the epistemic fallacy

For the critical realist Morgan's explanation of metaphor is an example of the epistemic fallacy in that seeing the world with a fresh perspective does not change reality it only changes our transitive understanding of that reality. Real changes need to be made to the underlying structures and mechanisms if such re-definition is to be effectual

Palmer and Dunford (1996, p. 698) present a traditional outlook on realism when they discuss the differing ontological assumptions implied by the use of multiple metaphors:

> ...two key conflicts emerge from differing ontological assumptions. The first conflict concerns the need for multiple metaphors. On the one hand is the view that multiple metaphors are necessary because there is no objective reality that a given metaphor may be said to best describe (nominalist position). On the other hand is the view that organisations have objective realities, and therefore specific metaphors may be judged in terms of their ability to accurately capture essential features of a specific situation to which they are applied (realist position).

For the critical realist metaphor provides a means to advance knowledge. This transitive purpose necessarily suggests that simply having a metaphor that mirrors reality is of little use since one would be no better off. Understanding is not helped by adopting a metaphor that exactly mirrors an existing badly understood situation, there must also be a creative element to metaphor use. In contrast to Palmer and Dunford's suggestion that realism encourages the use of a single metaphor, pluralism is in fact encouraged by a

208

critical realist outlook rather than discouraged. The assumed fallibility of any knowledge claims within critical realism encourages pluralism and the use of multiple metaphors.

Hirschheim and Newman (1991) in their paper *Symbolism and information systems development: myth, metaphor and magic* regard the use of symbolism and metaphorical association as an epistemological device to make sense of some reality. They define a symbol as "an image used for, or regarded as, representing something else. Symbols give meaning to what is perceived; they act as a filter through which the script is read" (p. 31).

Through such a definition they make clear their underlying hermeneutic philosophy. Their argument is that much of what happens within organisations is symbolic. They see that the often trivial happenings and rituals of organisational life can have a greater symbolic significance than their face value (salary differences perhaps being a prime example in that small differences in salary mean little practically but symbolically can have a large significance). In their view a metaphor is a type of symbol as are organisational myths and magic.

An example of myth and symbol

A particular example of the impact of myth and symbol in the Organization was the appointment of the new Managing Director. The move towards outsourcing had not been progressing quickly and the general consensus was that the new MD was brought in to speed the process. His previous role had involved the reduction of another organisation's workforce from 18000 personnel to 11000 personnel. Employees were well aware of his previous history and this reputation carried through to the organization. The presence of this strong association had real consequences in the organization

in that it demonstrated that management were serious about down-sizing. The employee's perception of the Managing Director helped to move the organisation more quickly towards outsourcing.

This particular view of the situation emphasises an important element within critical realism in that critical realism recognises that "reasons can also be causes" (Sayer, 2000, p. 18). Within critical realist argument, causes need not all be physical, they may be a result of a pre-existing social structure such as shared meanings. For the critical realist the shared perspective within the organisation of the new Managing Director had real consequences on the change process.

Collins (1994) dictionary defines a metaphor as a "figure of speech in which the term is applied to something it does not literally denote in order to imply a resemblance". Collins Thesaurus (1994) includes allegory, analogy, image and symbol as synonyms for metaphor. Srivastva and Barrett (1988) argue that metaphorical language is superior to literal language because it captures experience and emotions better and because it can communicate meaning in complex, ambiguous situations where literal language is inadequate.

The IT department as a transit lounge

Again during the move towards outsourcing the commercial section of the IT Department was being decimated with a number of personnel leaving before the transfer to the outside contractor. One of the people investigating the mechanics of the outsourcing process referred to the commercial section as the "transit lounge". This particularly rich metaphor indicates the

210

commercial section as busy, temporary with various personnel moving in and out (also perhaps indicative of the high consultancy involvement in the change process). It suggests the commercial section acts as a temporary stopover prior to concerned personnel moving on to wider fields. Also as Miles and Huberman (1994 p. 252) suggests the metaphor also has something to say about the rest of the organisation as well. Miles and Huberman present an example of an organisation that refers to a particular room as an "oasis", thus implying that the rest of the organisation is a form of desert.

Similarly in the case of the case organization the observation that the commercial section is a transit lounge may also be equating the larger organisation with an airport. This image suggests that the organisation has a very transitive population, with much leaving and arrival - the "transit lounge" a temporary holding place prior to employee departure to unknown destinations. The metaphor suggests an unstable work environment with much activity and foreign, unknown faces moving in and out.

Metaphor and Interpretivism

For the interpretive researcher metaphors are often used to gain some understanding of how organizational members see themselves. Palmer and Dunford suggest that earlier metaphors concentrated on the organization as a machine or organism. These early metaphors have been followed by such examples as:

- Organisational life as theatre (Mangham and Overington, 1987)
- Organisational life as competition

211

- Organisational life as chaos

- Organisational life as a psychic prison (Morgan 1986)

- Organisational life as political systems and reflections of power relationships

- The organisation as soap bubble. Tsoukas (1993) suggests an organisation can be seen as a hierarchical system of plastic controls – "as a system of quasi-randomly acting individuals having their own agendas and possessing their own local knowledge, who are plastically controlled by the whole in a similar way that a cluster of gnats, in spite of their irregular movements, does not diffuse but keeps together in a relatively coherent manner" (p. 510)

- The organization as being representable as a spider plant and the employees as strategic termites (Morgan 1993).

The use of metaphor as a representation tool is a particularly useful vehicle for making sense of complex situations, however as Doving (1994) suggests, there are potential errors in application:

> First is the error of commission, which occurs when a metaphor is overextended when applied to the target domain. Second is the error of inappropriateness which occurs when the metaphor has a limited utility because of the lack of commonality between its original and target domains. Third is the error of redundancy, or when properties of the original and the target domain are so similar that no added values result from using it. (as quoted in Palmer and Dunford, 1996, p. 694).

Personal reflections on organizational metaphors

> For example I would argue that the use of a psychic prison as a metaphor for organisational life is an error in commission in that the metaphor is too strong. Similarly a root metaphor of an organisation as a soap bubble, whilst appropriate to aspects of organisational life, is inappropriate

212

holistically as it reflects a degree of haphazardness to organisational life that I feel is not appropriate. Such a view demonstrates a lack of respect for organisational participants; in my view they are more than "clusters of gnats wandering haphazardly within a restrained environment".

This lack of respect for individuals and their potentialities reflects a collectivist view in part - collectivist arguments downplay the role of the individual. I have trouble with such a view in that I feel individuals have profound effects on organisational life; their influence being directed downwards through hiring policies and subtle approvals and rejections of subordinates actions. In general, I have considerable respect for the business manager and would have difficulty in adopting a theory that ignored them as individuals. This issue relates to what Probert (1998) terms as "authentic" theory use - researchers need to use theories in which they have an emotional investment and belief.

Mangham and Overington (1987) argue for the use of a root metaphor to provide a fundamental image of the world on which one is focussing. They suggest that once this root metaphor has been identified one can then use organising metaphors to frame and structure a more limited part of reality. Their underlying metaphor is that of the theatre – reflecting the unreality and symbolism of much of organisational life.

Organization as theatre

In my view the theatre metaphor is a useful metaphor for organisations, particularly for those organisations who have a strong responsibility to

213

shareholders (such as governmental and public equity organisations). The metaphor can help to highlight the underlying symbolism evident in much of organisational ritual. As a root metaphor, however, I feel there it is inappropriate in that the metaphor indicates a playfulness that in my experience is not evident in organisational life.

Representing organisations as a culture or as political arena is a very common metaphor in the organisational literature.

As argued below I feel that both of these metaphors reflect a degree of redundancy in that organisations are cultural entities and political arenas; the use of a metaphor to explain these aspects seems redundant

Metaphor and the researcher perspective

Fay (1996) asks "Must we comprehend others in their own terms?". He suggests that this is generally one of the fundamentals of interpretive social inquiry – the idea that actors should be understood in their own terms. He describes interpretivism as the view that comprehending human behaviour, products and relationships consists solely in re-constructing the self-understandings of those engaged in creating or performing them.

Fay (1996) describes perspectivism as the view that all knowledge is essentially perspectival in character. According to perspectivism knowers never view reality directly as it is in itself; rather they approach it from their own slant, with their own assumptions and preconceptions (p. 72). Perspectivism suggests that all scientific descriptions and explanations of our

214

experience and the world are perspectival in nature. He goes on to describe how this belief can lead to an argument for incommensurability with respect to research approaches – if we believe that not only our description and explanations are perspectival in nature, but our experiences as well, there is a strong argument for ontological relativism. As Fay (1996) argues "...if reality is a function of our experience, and if our experience is a function of our conceptual scheme, then our reality is a function of our conceptual scheme...people inhabiting different conceptual schemes do not just think about or experience the same world differently, instead they live in different worlds" (p. 80).

For the critical realist such an argument is an example of the so-called epistemic fallacy – confusing statements about the nature of being with statements about our knowledge of that being. For the critical realist reality is not a function of our experience - real structures exist independently of and often out of phase with the actual patterns of events and our experience of those events. Bhaskar's realism disagrees that such perspectival statements should be taken to imply something about the nature of reality itself.

In fact it can be seen to be quite arrogant for humans to assume that the world is created by ourselves. This anthropomorphic emphasis within interpretive accounts is an issue for the critical realist

Atomism and Holism as foundations for metaphor

Checkland and Holwell (1998) describes an organization as a person-like social collective – organizations act as if they were a collective entity which behave like a conscious being (an example being "Shell has decided to build a refinery in Singapore" (p. 80); Shell being equated with a single person-like identity). An alternate view sees an organization as reflecting the philosophy of the corporate chief. Simplistically the chief imposes his/her

215

personality on the organization by employing and promoting people in his or her own image, and these people continue with the process until the organization comes to be a reflection of the chief's personality. The view expressed by Checkland and Howell fundamentally differs from this view – one concentrates on the individual and the other on the social entity.

Aldrich (1992) argues that all models of organizations as coherent entities can be reduced to two basic views: organizations as social systems, sustained by the roles allocated to their participants, and organizations as associations of self interested parties, sustained by the rewards the participants derive from the association with the organization (p. 27). The concentration on self and one-ness is described by Fay (1996) as atomism:

> The thesis that the basic units of social life are self-contained, essentially independent, separated entities. According to atomism each of us experiences our own unique states of consciousness to which we have privileged access. ...Atomists, insisting on the idea that individuals are self-directing agents, focus on the properties and activities of individuals (including their desires, motives, and choices) to explain human behaviour. (p.30)

Atomism, as Fay (1996) argues, is an extreme view. It does not adequately represent the social interaction that helps define what a person is. Atomism is however a useful perspective in that it represents the importance of human agency – individuals can make changes for the better. An opposite extreme view is that of holism. Fay (1996) describes holism as the doctrine that people's identities are determined by their group membership, identity being produced by social and cultural forces. Holism claims that persons are essentially vehicles by which society and culture express themselves (p. 50).

Flood (1990 p. 208) from within a systems perspective provides the following definition of holism:

216

1. The contention that wholes, or some wholes, are more than the sum of their parts... 2. (In the social sciences and history) A theory that claims society may, or should, be studied in terms of social wholes: that is, that the fundamental data of social analysis are not individuals or individual manifestations but rather societal laws, dispositions, and movements.

Holism provides a basis for methodological holism which proposes that an individual can only be understood by placing him or her in a social context. It follows that social wholes, not their individual human members, must be the bedrock of any adequate social scientific theory (Fay 1996, p. 50). Holism is more committed to seeing the world in terms of wholes that exhibit emergent properties, whereas atomism is a more reductionist approach.

Does understanding organizational players from their own perspective necessarily imply that the only sensible organizational metaphor is as a political arena?

In terms of my search for an underlying theory to explain the happenings at the organization - the division into atomism and holism was a significant breakthrough in my understandings of theoretical perspectives. It helped me to categorise the different theories and provide some help in finding a way through the theoretical "maze". It also helped me to appreciate that much of what I believed reflected an individualist perspective.

Having worked in organisations for some years I feel that the most appropriate root metaphor for the organisation is that of a political battlefield. Other metaphors for organisational life, such as organisations as cultures, spider plants, machines etc are important to the organizational member if they provide a different perspective on their organizational role

217

However, as a practical tool to someone surviving within an organisation the adoption of such a view as a root metaphor or fundamental belief system would be dangerous. I feel that most managers would have a similar political view. Politics are fundamental to survival and advancement within any organisation and the participant could not generally afford the luxury of viewing an organisation in anything but this fashion. For the researcher to be true to the interpretivist principal of understanding people in their own terms must this therefore suggest that the only way of understanding individuals in their own terms is by using a political metaphor?

Conclusion

Metaphor is not generally seen as a useful tool in traditional realist examination but as detailed in this chapter it is essential within a critical realist approach that proposes the existence of potentially unobservable objects. This chapter highlights the important theoretical role that metaphor can have in both realist and interpretive studies.

The chapter also highlights how metaphor can be used on an individual basis to surface researchers underlying beliefs. As detailed it played an important role in my own study in that it highlighted my individualist beliefs and emphasized the important role that I give to the individual manager. It highlights a number of different uses for metaphor and suggests a number of alternate representations of organizational life.

Writing as a method of enquiry

In terms of my own understanding the above discussion of metaphorical associations was a useful step in the development of an underlying theory for

218

the thesis in that it forced me to examine what my underlying beliefs were regarding organizational life. This examination helped to reinforce my respect for individuals and their important role in organizations. The chapter is a good example of Richardson (2000) who sees writing as "a method of inquiry, a way of finding about yourself and your topic" (p. 923).

Chapter 7 - Examining the Outsourcing Decision - A
Knowledge-focussed Perspective

Introduction

This chapter and the following chapters move the study towards an
examination of the practical implications of critical realism. It provides
examples of the way that critical realism has an important role as
"underlabourer and occasional midwife" to research.

This chapter examines the decision to outsource the IT Department
from firstly a knowledge-focused perspective founded on diffusion theory and
secondly on critical realism. The two perspectives provide differing
explanations for the move in that they propose different structures and
mechanisms by which the decision was made. Diffusion theory, as applied by
Newell, Swan and Galliers (2000) suggests that mainly supply-side technology
firms and consultancy firms influence internal organizational decisions to
accept such innovative practice as outsourcing.

> The care with which I propose that Newell et al provide the foundation
> for comparison rather than Rogers (1995) diffusion theory is because I feel
> that Newell et al are applying a theory primarily focused around social
> constructivism rather than traditional diffusion theory. I feel that Newell et
> al are modifying the traditional realist origins of diffusion theory towards an
> emphasis on social constructivism. I also feel that Lacity and Hirschheim
> (1993) reflect a similar focus.

It is argued by this thesis that another perspective would propose that a major cause behind the move to outsource was governmental imposition. Both diffusion theory and critical realism can be used to present different structures to explain the reason to outsource. As Brown (1999), from a critical realist perspective argues, there may be a number of possible explanations for an observed phenomena (such as the move to outsourcing) and it is important that these alternatives be considered:

> Once competing hypotheses of underlying structures have been made they must be tested empirically. Critical realists take seriously the high difficulty of experiment in social science relative to natural science. In the absence of experiment hypotheses are tested, for the most part, by their relative degrees of explanatory power regarding specific social phenomena.

This thesis argues that the critical realist perspective provides a better and more supportable explanation for the move than a knowledge-focussed perspective based around diffusion theory.

This chapter builds on a diffusion model developed by Abrahamson (1991) to categorize the innovation decision. The following chapter, chapter 8, presents the case example to confirm this model. Using an argument based around critical realism it proposes an external structure - governmental imposition - to explain the "forced selection" of outsourcing. This basic stance is seen to provide a clearer explanation of the situation than the knowledge focused perspective suggested by Newell, Swan and Galliers (2000). Yet, as critical realist examination accepts, such an explanation may well be open to amendment as a deeper appreciation of the situation becomes available. As Collier (1994, p. 23) argues "A transcendental argument may account for the possibility of some phenomenon, but there may be rival transcendental arguments to explain the same thing, just as there are rival theories at the frontiers of science. One transcendental argument may explain more than others, and so be the best available account. But in philosophy, as in science,

while there can be justified beliefs and there can be progress, there can be no *final theory*, unsusceptible to revision and improvement".

Diffusion Theory

Diffusion theory suggests that the adoption of an innovative practice (such as outsourcing) is largely a consequence of (perhaps distorted) communication between the respective players in the diffusion process. An example of this argument is presented in Newell, Swan and Galliers (2000) who examine the adoption of BPR within organisations, BPR being considered as innovative practice. They see innovation diffusion as 'a socially constructed process involving the development and implementation of new ideas' (Van de Ven, 1986). This knowledge focussed perspective on the diffusion of technology is also used in Kautz and Larsen (2000), Lacity and Hirschheim (1993), Kwon and Zmud (1987), and Prescott and Conger (1995)).

Kautz and Larsen (2000) examine the diffusion of software best practices and like Newell et al (2000) see the diffusion process as a communication processes. Such a perspective is founded on Rogers (1995) Rogers sees diffusion as the process by which an innovation is communicated, through various communication channels, over time, amongst the members of a social system. An innovation is defined as an idea, object or practice which is perceived as new. Such a definition can be seen to encompass such technological fashions and practices as TQM, BPR, Outsourcing, ERP and CRM, to name a few. In this theory the diffusion process is largely seen as a communication process or, as Rogers puts it, an information seeking and processing activity. Such a perspective highlights the social aspects of the adoption and diffusion process and sees the technological diffusion as a social communication process rather than purely a technological implementation.

222

Newell et al (2000) present a recent example of this approach when they build on Rogers model to examine the reasons for the widespread and rapid diffusion of BPR. In particular they highlight the ways In which the knowledge underpinning a new technology is packaged and bundled by the supply side organizations In order to encourage a more rapid and widespread diffusion. These supply side firms include associated technology suppliers, management consultancy firms and professional associations who are seen to bundle the technological practices in a manner that is considered by the authors to be overly simplistic. This simplistic bundling Is argued to blind the prospective users to the Inherent underlying complexities.

The Outsourcing Decision as a Consequence of Innovation Diffusion

Adopting this perspective on the diffusion of outsourcing would see the move to outsourcing In a negative light as it would see the diffusion as a consequence of distorted communication emanating from such concerned parties as technology suppliers, outsourcing firms and associated professional bodies. Lacity and Hirschheim (1993) adopt this stance when they argue that the move to outsourcing is largely a consequence of management fashion. They see that a major part of the outsourcing trend reflects a 'bandwagon' effect resultant from an unrealistic expectation of success; this expectation being prompted by the highly publicised successes of such companies as Kodak (Loh and Venkatraman 1992). They present some of the myths associated with popular outsourcing claims and suggest that the complexity of the technology or process Is generally not properly communicated In promotional literature, thus prompting an unrealistic expectation of success.

Both Newell et al (2000) and Lacity and Hirschheim (1993) present a fundamentally negative perspective on technology diffusion. Newell et al suggesting that the deliberate and simplistic bundling of technologies by supply side firms hides real complexities, whilst Lacity and Hirschheim (1993) arguing that false user side perceptions encourage the adoption of ultimately

technically inefficient outsourcing practices. Both perspectives depend heavily on social constructivism in that they see the diffusion and adoption process as a social process consequent from distorted user perceptions. Although Newell et al (2000) briefly mention the possibility of macro level influences at a country or industry level, macro influences are not an important part of their argument. Their analysis is placed securely within the so-called transitive dimension in that they concentrate on the 'knowledge-focussed aspects of the diffusion process (in fact, Newell et al (2000) title their paper "A knowledge-focused perspective") and give little recognition to the potential underlying real structures and mechanisms that are so important to a critical realist examination.

This exclusively constructivist approach can be contrasted with that of the critical realist who would argue that organisational decision making is not purely dependent on individual or collective perceptions but is also a consequence of "real" external and internal structures - 'real entities with their own powers, tendencies and potentials' (Archer 1995, p. 106). These internal and external structures impact individual decision-making in significant and measurable ways.

A realist examination depends heavily on a consideration of the role that social structures play in the organisational situation and how these structures impact agency decision. Newell et al (2000) recognise the importance in the diffusion process of external "parties" such as management consulting firms, technology suppliers, professional associations, educational institutions, associated partner firms and government bodies but they do not specifically define the mechanisms by which these parties impact the decision making process. For the critical realist such parties would be seen as social structures and the individual mechanisms through which decision-making is influenced would need to be identified to support such an argument.

Social constructionism as a negative representation of agency action

For the critical realist, another issue with Newell et al's analysis is that it tends to downplay the active role that agents play in the decision-making process. The social constructivist perspective on which Newell et al base their argument tends to downplay the role of the *active agent* by suggesting that managers **will** passively accept the false packaging of BPR technologies. Similarly Lacity and Hirschheim (1993) downgrade the decision making role of organisational members by arguing that the outsourcing movement be seen as a consequence of an irrational bandwagon of firms overly influenced by the myths of outsourcing.

To more clearly reflect the sensible decision-making role of the concerned manager it is important that the impact of external and internal structures be more clearly recognised. The following section presents a model from Abrahamson (1991) which is modified to provide a foundation for this recognition.

A "Fads and Fashions" perspective on outsourcing

Abrahamson (1991) presents a sceptical view on innovation diffusion based around the question "When and by what process are technically inefficient innovations diffused or efficient innovations rejected?" (p. 587). He argues that much of the business literature demonstrates a pro-innovation bias in its implied assumption that all innovation is good. This pro-innovation bias is demonstrated through an often implied assumption that adoption of innovation is important (e.g. critical success factors for successful adoption, factors that affect early adoption, factors that affect innovation diffusion etc). He suggests that such negative questioning will avoid such pro-innovation bias.

Abrahamson's questioning is retroductive in focus and thus reflects the predominant realist foundations of his argument. In fact the arguments on which he bases the framework are not dissimilar to that of the critical realist. For example, in my view, his model is presenting a structure/agency perspective in a different guise through its argument for outside "influences". The major difference I feel is in the concentration on process when he asks the question "when and by what processes are technically inefficient innovations diffused or efficient innovations rejected?".

A critical realist questioning would be different reflecting the different ontological perspective for the critical realist, for example, "Under what conditions is it possible that technically inefficient innovations are accepted or efficient innovations rejected?". Such questioning encourages an investigation into the deep structures and mechanisms making up reality.

Using this sceptical perspective on the diffusion process he develops a model to help describe the ways in which technologically efficient processes may be rejected or technologically inefficient processes diffused and accepted. To reflect potential adverse forces at work on the decision to accept innovative technologies he presents two new dimensions to explain undesirable outcomes - the impact of outside 'influences' and the imitation element in organisational decision-making (see Figure 11).

Abrahamson's model extends on the knowledge focussed diffusion theory of Rogers (1995). Rogers defines 5 stages in the decision making process:

(1) Knowledge is the stage where a potential adopter learns about the existence of an innovation and gains some understanding of its way of functioning.

(2) Persuasion is the stage where a favourable or unfavourable attitude towards an innovation is formed.

(3) Decision is the stage where activities are undertaken which lead to the adoption or rejection of an innovation.

(4) Implementation is the stage where an innovation is actually put to use.

(5) Confirmation is the stage of reinforcement for an adoption decision which has already been taken. (as quoted in As Kautz and Larsen (2000, p. 11).

Abrahamson (1991) is primarily concerned with the second stage – persuasion. Rogers (1995) also defines a number of different communication *channels* that are involved in the knowledge dissemination process. The mass-media channels (such as the Internet, newspapers and radio/television) are distinguished from the interpersonal channels of face-to-face exchange in an informal setting. "Cosmolite" channels involve access to sources outside their own social system and are distinguished from localite channels which provide information from inside sources. Each of the various channels are considered to have a greater or lesser degree of importance depending on the stage of knowledge diffusion.

Diffusion from a Structure/Agency Perspective

From a critical realist perspective Rogers (1995) model is a process model that concentrates on the process of decision-making and does not look at causation in detail. Such a perspective thus does not give high-level structural influences and associated mechanisms a major role in the analysis

227

process. From a realist perspective the communication channels could be equated to potential impacting structures and thus provide the basis for examining the specific mechanisms by which decision making is influenced. In my view, Abrahamson (1991) is providing an implicit recognition of the importance of macro-level structures by the inclusion of internal and external 'influences' in his model. Amending his model to explicate the underlying assumptions regarding structure and agency provides some useful insights.

		Imitation Processes do not impel the diffusion or rejection	Imitation Processes impel the diffusion or rejection
Outside Influence Dimension	Organisations within a group determine the diffusion and rejection within this group	Efficient-Choice Perspective	Fad Perspective
	Organisations outside a group determine the diffusion and rejection within this group	Forced-Selection Perspective	Fashion Perspective

Figure 11: Theoretical perspectives to explain the diffusion of technologies
(from Abrahamson 1991, p. 591)

The efficient choice perspective

The first perspective - the efficient-choice perspective - assumes that technology adopters make independent, rational choices guided by organisationally measurable goals of technical efficiency - it assumes that organizations are relatively certain about their goals and their assessments of how efficient technologies will be in attaining those goals. This perspective elevates the role of the agent and minimise the role of impacting structures. It emphasises the rationality and power of the 'doing' agent by suggesting that it is the agent's sole choice to accept or reject the technology. This perspective does, however, ignore the potential for outside structures to impact the technology decision.

The fad perspective

The second perspective - the fad perspective - sees organizations as operating in conditions of uncertainty about organisational goals and imitating other organizations by adopting new technologies ('fads'). As Abrahamson (1991) argues this adoption can be for a number of reasons such as:

a) knowledge dissemination from the 'fad adopted' organization can allow them to feel safe in adopting the new fad

b) a desire for the legitimacy provided by following the emergent norm

c) a desire to avoid the adopting organization achieving a strategic advantage through early adoption

The fad perspective encourages considerations as to agency **and** structure, emphasising the role of the active agent in the decision to adopt an unproven fad, but suggesting that only internal structures (such as associations with the fad adopting firm) impact agent's decision, external structures being neglected.

The fashion perspective

Along with the fad perspective, the fashion perspective assumes a high degree of uncertainty about organisational goals and sees organizations as primarily imitating other organizations external to the business area (such as management consulting firms) rather than making rational independent decision. This perspective relegates the role of the agent in that it argues that the organisational role of fashion follower will predominate over individual actor decision.

The forced selection perspective

The final perspective presented is the forced selection perspective. According to this perspective organizations outside the adopting organization may use their power to affect the diffusion of innovations; rational decision-making is present but less important as the powerful external influences predominate.

A structure/agency perspective on Abrahamson's model

The vertical axis of Abrahamson's model (Figure 11) suggests that internal and external 'influences' are most important in the examination of innovation diffusion. Such influences can be seen to result from internal and external social structures. The horizontal axis suggests that agency decisions are less important in some situations (where imitation pre-dominates). Modifying Abrahamson's model slightly makes this agency/structure perspective explicit (see Figure 12) and allows one to view the role of impacting social structures on organisational decision-making. The new model makes explicit Abrahamson's assumptions regarding agency and structure and is basically in line with Reed (1997) who argues that both structure and agency must be considered in the social analysis of organisational situations. As detailed in the next section the model provides a useful basis for examining the outsourcing decision in the governmental case under study.

	Active Agency	Passive Agency
Internal Structures Important	Efficient Choice Perspective	Fad Perspective
External Structures Important	Forced Selection Perspective	Fashion Perspective

Figure 12: Theoretical Perspectives to explain the diffusion and rejection of innovative technologies (based on Abrahamson, 1991)

Conclusion

Whilst the knowledge-focused perspective suggested by Newell at al (2000) is useful in explaining aspects of the diffusion process, from a critical realist perspective its focus wholly within the transitive knowledge-based dimension suggests that it only tells half the story. Such a perspective does not allow for the consideration of the real enduring macro level structures and associated mechanisms that are so important to the critical realist. The social constructivist approach suggested can also be seen as not providing adequate recognition of the role of the rational manager in that such a perspective

suggests that managers are gullible creatures that readily accept the distorted communication emanating from concerned vendors and associated bodies. As will be detailed in the following chapter this view of management decision-making does them a disservice as it does not properly reflect the structural pressures under which they must operate.

The acknowledgement of wider impacting social structures and the detailed examination of the mechanisms by which decision-making is impacted allows a clearer, more explicit understanding of the decision-making process. Such a detailed examination tends to divert the blame for bad outsourcing decisions from individual managers as it provides a clearer recognition of the level of outside pressure on the decision-making process. Managers operate in complex decision environments and often react to situations and pressures that are not easily observable. A process-focussed study that ignores the potential impact of wider macro level 'structures' is only telling half the story as Reed (1997, p. 25) points out in a critique of traditional post-modern approaches:

> The ontological status and explanatory power of 'structure' - i.e., as a concept referring to relatively enduring institutionalised relationships between social positions and practices located at different levels of analysis that constrain actors 'capacities to 'make a difference' - is completely lost in a myopic analytical focus on situated social interaction ...

He suggests the adoption of a stance that acknowledges the importance of both structure and agency and thus avoids the problem of dealing with ' 'flat' or 'horizontal' social ontologies in which the processual character of social reality totally occupies the analytical and explanatory space available' (p. 24).

The following chapter examines the important role that governmental imposition plays in the outsourcing move.

233

Chapter 8 - Examining the Outsourcing Decision - A
Critical Realist Perspective

Introduction

In the previous chapter a knowledge- focussed perspective based
around diffusion theory can be seen to provide a possible explanation of the
move to outsourcing. As detailed above it is argued that such theory may help
to explain some aspects of the decision process but it cannot provide a
complete explanation due to its lack of recognition of the underlying
intransitive dimension. In order to understand the happenings at the
organization a deeper analysis is needed to understand the underlying
structures and the mechanisms by which those structures impact the
situation.

This chapter addresses the question "under what conditions is it
possible for a successful internationally benchmarked IT Department to be
outsourced?". Such a question is an example of the retroductive questioning
which is fundamental to critical realist examination. As detailed in chapter 5
Stones (1996, p. 37) provides a simple précis of critical realist explanation:

> ...to combine a real definition of an object and retroduction in an
> explanatory account means, in common-sense terms, that one
> makes an informed guess as to what is doing the causing
> (retroduction), gives a clear and detailed definition of what this
> causal element is (real definition) and then shows clearly that it
> is indeed doing a significant amount of the causing.

In line with Stone (1996) this chapter reflects a realist retroductive
approach by firstly proposing that governmental imposition largely "caused"

235

the outsourcing decision; it then gives a detailed definition of what this causal element is and demonstrates that it is indeed doing a significant amount of the causing. The chapter concludes that the decision to outsource can be considered as largely derivable from an external social 'structure' which impacted internal agency decision.

The Events leading up to Outsourcing

As detailed in Chapter 1 the organization was traditionally an engineering organization with a heavy involvement in capital works development. Prior to the decision to outsource the organization the IT Planning Manager post outsourcing saw the IT department as providing a service function:

> The organisation in those days saw IT as a necessary evil. They were focused on one of two things, engineering or financial considerations and IT was something they had to have, but they didn't really want to spend any money on it and all the money they had spent, was too much - 'where was the return on the investment?' - that was the continual question.

Background to the Information Business Plan

Prior to outsourcing the IS Department had reached agreement that for planning purposes the Information Business should be treated at the same level as the other major business areas - money, assets and people. The development of the first Information Business Plan was a major achievement in an engineering focussed organization. Yet there was a degree of opposition to this idea as an employee later pointed out:

> The prevailing view of executives at the time was that it was completely inappropriate to describe the information thing as a business. That caused quite a bit of grief and controversy - it is merely a process. No way is it a core business, it is just a support process or function.

In order to properly complete the Information Business Plan there was an initial need to examine the information requirements of the various

236

business processes - the IS Manager led this modelling exercise. Over the period 1993-1995 the IS Manager developed the Information Business Plan and continued work on process modelling and investigations into outsourcing of non-core processes:

> On the practical side of delivering a service we were starting to shine, we were winning TQM awards, the quality of our service was very good, and we were getting accolades in the press, the cost of our service was benchmarked internationally in the top six in the world. So things were going very, very well. (IS Manager).

This observation was confirmed in later interview with the then Managing Director. He indicated that the IT Department benchmarked very well being one of the leaders internationally within the industry sector as well as being towards the top in other similar industries.

The IS Manager originally felt that the investigation into outsourcing was simply an exercise with no real plan to move ahead with outsourcing:

> In fact I went to a board meeting where the question was raised "Why the hell are we looking at outsourcing IT, when we've just had IT successfully benchmarked internationally; we know we run efficiently, effectively - we've just given these guys the first TQM award in the organisation because they're working so well. So why the hell do we even bother looking at it? And what came back it's a government directive that we look at it. So we really told the staff don't worry, it's an exercise that the government wants to go through and that we know that the results and figures will show there's no way people can come and run it any cheaper than we do.
>
> And that wasn't true, the exercise was "this gets outsourced, whether it was economic or not". It took a while for me - I believed, and my director believed that this was a paper exercise and we were looking at outsourcing of many areas. It was an agenda simply to force IT out whether it was economic or not. (IS Manager)

> Perhaps the most important element of the decision to outsource was the belief within this engineering focused organization that IT was non-core. As detailed in a later interview with the then Managing Director outsourcing was to be considered an option if the external party could meet the cost standards set internally.

The seemingly efficient operation did not stop the move towards the outsourcing of the entire IT operation:

> The rationale I understand was that the Organisation was running one of the best IT shops and also was one of the biggest and therefore the most expensive. [The argument was that] 'If we can successfully outsource the Organisation's IT services and beat a lot of those battles then the other ones won't have a leg to stand on'. Now that's why it moved quickly, basically from the moment the decision to look at outsourcing seriously was announced everything stopped on the information business planning (IS Manager)

The modelling work was stopped as the uncertainty engendered by decisions regarding outsourcing hampered the modelling process:

> We didn't do anything more [on process modelling]and subsequently the outsourcing of many, many other areas of the organisation were announced and everybody stopped modelling because you can only do this sort of work where there's a harmonious attitude, people must want to do it and they need to see the benefits of doing it, as soon as you put this sort of turmoil and distrust and stress on people - how long do I have a job or where am I going to go to next? what's the organisation done to me? These sorts of things just don't work. You can't do it [process modelling] in this sort of environment and so the whole thing disappears (IS Manager).

Governmental Pressure to outsource

The move towards outsourcing was a part of worldwide governmental trends towards smaller government and privatization with associated outsourcing of non-core functions. This focus became more central to governmental policy with a change of government over this period. The policy of outsourcing only if it proved to make economic sense changed with the new government:

> Prior to the new government the way the rules were written was that there was a process to follow to identify outsourcing targets: (i) identify appropriate non-core sectors, (ii) establish their performance and (iii) in a competitive process determine whether the outside party could do it better. With the new government the decision to outsource became a political decision and the prior process and rules did not apply. The argument became that if the operation was non-core the outsourcing should go ahead anyway even if the results were comparable since it allows managers more time to concentrate on their core activities. (Interview - Managing Director)

As detailed in a discussion document prepared for public review in April 1995 (Commission on Government 1995), the Western Australian Government signed intergovernmental agreements to introduce a National Competition Policy. This policy was based on the reforms recommended by the National Competition Policy Review Committee (1993, The Hilmer Committee) to enhance competition in the delivery of public services. Much of the initial focus within state government for the move to outsourcing was contained in the commonly called McCarrey Report - a report following from an independent commission set up to review state government finances. A part of their recommendation was that commercial activities undertaken by departments should be assumed by 'semi-autonomous business units within

239

their parent agency' (McCarrey, 1993: 23). The two reports - The McCarrey Report and the Hilmer Committee report were important in defining the movement towards smaller government. The reports embodied the idea that the core business of government was ultimately to facilitate and to regulate - the provision of non 'social-justice' services being better fulfilled by private bodies. In 1993 the McCarrey Report suggested that the corporatization reform process had commenced but was proceeding slowly within government organizations.

Over the period immediately prior to outsourcing the IS Manager felt that he had a good relationship with the Managing Director (MD) and he saw the MD as a supporter of information services:

> He [the MD] had a very good understanding of business process reengineering and championed it - he had a good understanding of the concepts we were putting together, of managing by information, he created the term 'management through information' within the organisation. He actually championed it, which was fantastic for me. He was not overtly an IT supporter, though he knew where I was coming from and he could see where we were going... (IS Manager).

Unfortunately for the IT Department the MD was replaced - the general consensus for the change being that the pace of privatisation reforms were not moving fast enough. The old MD had a different focus:

> That was the difference between the old MD and the new one. The old MD aimed to keep the public service at bay by proving efficiency. This argument didn't in fact work - efficiency didn't provide the sole argument, proving efficiency did not prevent the outsourcing.

As indicated above the change in government was also an important step in that the new government had a greater emphasis on outsourcing. Prior to the new outsourcing policy the Organization had already outsourced a number of non-competitive sectors and had reduced the headcount by around

240

1,000 personnel, yet the perception from the government side seemed to be that the pace of reforms was not fast enough. The Managing Director was replaced with a new director having a particular background in downsizing.

In the view of the pre-outsourcing IS Manager much of the outsourcing was not based on economic rationale:

> [the MD] would've fought tooth and nail to continue the business process reengineering to improve the organisation not just for the sake of outsourcing. It cost [him] his job, he didn't move fast enough ...the agenda was 'to outsource, period' - not to outsource only if it made sense. There were many areas and IT was one of them, where [the MD] said this doesn't make sense, it's not a logical decision and a board of a private company would not do this. This support virtually cost him his position (IS Manager).

A similar comment was made by another employee at the time:

> A lot will move out into the private sector - money is not the issue in this decision. Really there's no way to compare costs of an in-house system with an outside development - you can't do this unless both do the project at the same time and compare.

The new MD was less supportive of IT and the IS Manager commented that in the year between the appointment of the new MD and his own departure they had only one meeting - *'He never came to IT ever'.*

Conclusion

It is claimed that the IT outsourcing is primarily a consequence of an external social structure (emanating from within the state government) which imposed pressure on the organization to outsource. This structure impacted the organization through the ability of the Premier to hire and fire CEOs of state run organizations. It is argued that in order to speed the outsourcing

241

process the Managing Director at the time was replaced and a new Managing Director more supportive of the outsourcing process was moved in.

The decision to outsource the IT Department can thus be seen to be largely determined by forces outside the control of the participating personnel. Thus the framework detailed in Figure 12 above is corroborated for the quadrant entitled "forced selection perspective" in that the framework suggests that in the case of forced selection an emphasis be placed on external structures and the role of active agents in the process. In the case detailed an external structure has been identified that explains the move to outsourcing despite strong internal agency opposition.

The usefulness of the model in explaining the other 3 quadrants still needs to be evaluated. However, it is the argument of this chapter that a consideration of structure and agency is useful in all cases and the model can provide an initial suggestion as to areas of study. For example, if the move to outsourcing is seen to be a rational and sensible process (the "rational choice" quadrant) an examination of *internal* structures and the active role of agents is suggested by the framework. Outsourcing is such a stressful and career-changing process that it seems unlikely that agents directly impacted by the move would support the move. This therefore suggests that there is an internal structure in place encouraging the move to outsourcing. To properly explain the decision to outsource, this internal structure would need to be identified and the mechanisms by which this structure impacts the concerned agents would also need to be examined.

For the case under study a postmodernist situationally focussed examination of the situation would have difficulty in understanding why outsourcing eventuated. Only by considering the governmental influence can one properly explain the demise of an IS Manager and his department even

242

when the IS Manager had agreement to their first information plan and appeared to have a supportive champion in the then managing director. A consideration of imposing structures is essential to understand the outsourcing outcome, such structures being identified through answering such questions as "Under what conditions is it possible for an efficient IT Department to be outsourced?". The answer to this question leads to a consideration of possible "real" external structures and their effects.

Factors impacting public organizations

Thong et al (2000) observes the following major differences between private and public organisations:

1. Environmental Factors: Less market exposure (and therefore more reliance on appropriations), resulting in less incentive for productivity and effectiveness, lower allocational efficiency, and lower availability of market information; more legal and formal constraints; and higher political influences, including impacts of interest groups and the need for support of constituencies.

2. Organisation-Environment Transactions: More mandatory actions due to the unique sanctions and coercive powers of government; wider scope of concern and significance of actions in the public interest; higher level of scrutiny of public officials; and greater expectation that public officials act fairly, responsively, accountably, and honestly.

3. Internal Structure and Processes: More complex criteria (e.g., multiple, conflicting, and intangible); managers with less decision-making autonomy, less authority over subordinates, greater reluctance to delegate, and a more political role for top managers; more frequent turnover of top managers due to elections and political appointments; difficulties in devising incentives for individual performance; and lower work satisfaction and organisational commitment.

Thong et al (2000) identifies that one of the most important differences between private sector and public sector organizations is the coercive power of high-level political influence. This power has been demonstrated in the case example. Prior to the more recent corporatization

this power was even more evident as the organization was more closely controlled by the government of the day. With corporatization governmental policy needed to be in writing and tabled in parliament prior to implementation. The corporatization process aims to thus extend the separation between government and the public sector.

Apart from policy setting another major means of controlling public sector organizations was the appointment policy for Managing Directors or CEOs. The State Premier had the power to directly appoint CEOs and Managing Directors and thus the government of the day had a considerable power over the CEOs and thus the organisations, particularly those not corporatized.

In answering the question "under what conditions is it possible for a successful IT Department to be outsourced?" the case study provides a good demonstration of critical realist examination. It firstly proposes an explanation for the observed outsourcing (governmental imposition); it then demonstrates that the structure exists and describes the mechanism by which the structure impacts the situation. From the above discussion it is clear that governmental policy had a lot to do with the move towards outsourcing. This governmental structure was imposed through the CEO hiring and firing practices, as well as via written and unwritten governmental policy.

An alternative explanation - fashion following? Is the forced selection argument hiding complexity?

An alternative explanation of the move to outsourcing might be fashion following but from my experience with the IT personnel concerned this did not appear to be the case. In my view, the IT personnel were particularly well

informed concerning current management practices (as can be seen in their reaction to calling the outsourcing process "BPR" — see next chapter) and did not have any significant illusions as to the benefit of outsourcing.

From a governmental perspective, however, this fashion following may well explain the governmental leanings towards outsourcing since the outsourcing phenomena can be seen to follow from a similar movement within the UK. The examination of this fashion following should perhaps form a part of this analysis since the research question is "Under what conditions is it possible that a successful IT department is outsourced?". To answer this question one may argue that one of the necessary conditions for IT outsourcing would be governmental support for outsourcing which would then require consideration of a totally different set of structures than that being considered to date. Where does one stop? The next step may well be then to examine the origins of the move to outsourcing in the UK etc etc. The complexity of social reality can be well appreciated by such an argument and suggests that the critical realist researcher has a major input into the level of detail that a particular study may reflect. There does not appear to be a way around this problem in critical realist examination — as quoted in the introduction the ontological complexity assumed by the critical realist argues that "yes, the world is that complex" and "yes, it is often very hard to get at" (Stones 1996) but practical judgements and conclusions still need to be made. Such assumed complexity may well explain the reasons for the lack of exemplars in the area.

Also as Brown (1999) argues whilst there may be a number of possible explanations for an observed phenomena, such explanations need to be evaluated also by their explanatory power:

"Once competing hypotheses of underlying structures have been made they must be tested empirically. Critical realists take seriously the high difficulty of experiment in social science relative to natural science. In the absence of experiment hypotheses are tested, for the most part, by their relative degrees of explanatory power regarding specific social phenomena".

In the absence of experiment a major argument for a forced selection perspective rather than fashion following is the suggestion that such an unpopular organisational change must be imposed. Apart from the lack of evidence for a fashion following perspective it is my contention that the explanatory power of a forced selection perspective is also greater.

Chapter 9 - Evolutionary Models of IT Planning and Realist Examination

The floater metaphor ... seeks to capture the way in which a certain type of study ... acquires a broader and longer perspective by means of floating over the surface of events, as if in a hot-air balloon, from which one's view is extensive but lacking in detail. Floater analysis, like hot-air balloons, can come down and land every now and again and, depending upon where they land - and for as long as they remain there - details, patterns and nuances of social interaction can take on an unfamiliar richness and vibrancy. Even the words of lay actors can sometimes be heard before the balloonist floats upward again and onwards over the next horizon. What distinguishes floater accounts from contextualized accounts is quite simply the dominance of the perspective from altitude, the surveying of vast expanses of time-space from up on high. (Stones 1996, p. 77)

Introduction

This chapter examines whether traditional evolutionary models of IT Planning can properly explain the evolution of planning at the organization. The chapter introduces a number of different evolutionary models of IT Planning and then relates them to the happenings at the organization. It questions whether the evolutionary models proposed in the literature can actually provide a useful framework for investigating the role and development of IT planning in the case example presented. Contextualized examination is needed to understand the particularities of IT Planning within an organization.

From a realist perspective Stones (1996) describes the particular difficulty in understanding what is happening at a particular time and space in the world. As detailed in Chapter 5 he sees that the ontological richness

247

implied by contemporary realism generally requires that the researcher examine single contextualized case studies and provide detailed analysis of agency roles. He questions whether "dreamer theory" founded on generalised abstract pattern analysis can provide the necessary detail to properly understand social situations. As the extensive quote detailed in the chapter introduction indicates he describes *dreamer theory* using the metaphor of a hot-air balloon; the hot-air balloon touching down to provide the pretence of a contextualized support for associated dreamer theory. Stones (1996) appears to adopt a disparaging approach to *dreamer theory* and associated *hot-air balloon* approaches but he does see that they still have an important role to play in examining trends and common themes. He questions their benefit, however, for realist examination and argues that contextualization is needed in order to explain the rich and complex ontology implicitly assumed.

The first section of the chapter reviews various insights into the role of IT Planning and its relationship with Business Planning; it then examines the particular issues impacting the case study and finally concludes that traditional evolutionary models of IT Planning cannot provide sufficient contextualization to adequately explain the way IT Planning has evolved as the organization changed.

IT Planning Approaches

The IT Plan is generally seen as a cornerstone of the IS/IT presence in an organisation. Throughout the eighties and nineties the importance of the linkage between the IT strategy and the business strategy has been continually highlighted (Reich and Benbasat 1996, Henderson and Venkatraman 1993, King 1978, King and Teo 1997). It has continually ranked highly in surveys of the main concerns of CIOs. This ranking is taken to imply that CIOs want to be able to rationally develop a plan and a purpose for the IS function in order to avoid being drawn off course with each new

248

technological innovation (Dekleva & Zupancic, 1993; Brancheau & Wetherbe, 1987; Pervan, 1997; Pervan, 1998). It is commonly suggested that close integration of the organisational business plan and the IT plan is desirable and is a goal that most organisations should work towards. The linkage or alignment ensures that implementation of information technology matches the organization's current competitive needs rather than traditional internal organisational IT trends (Bowman et al 1983).

Evolutionary Models of IT Planning

King and Teo (1997, p. 193) argue that as the strategic use of IT becomes more important to organisations the linkage between BP (Business Planning) and ISP (Information Systems Planning) must increase:

> The importance of IT has increased over the years. As a result, BP-ISP integration becomes increasingly important as firms strive to better deploy IT to support business strategies. Over time, therefore, we can expect increasing levels of integration between BP and ISP as the IS function begins to have a greater impact on the organization. It follows that generally the evolution of BP-ISP integration should be in the direction of increasing extent of BP-ISP integration, namely: administrative integration, sequential integration, reciprocal integration, full integration.

The difficulty from the IS perspective is that as BP-ISP integration becomes more necessary and commonplace this therefore means that IS Planning must be just as reactive as the business organisation to the rapidly changing business environment.

One of the earliest papers to recognize the importance of a linkage between business planning and IS planning was that of King (1987) who proposed an Information Systems Planning methodology to allow the integration of IS strategies with business strategies. The methodology proposed that the IS strategy set (system objectives, system constraints, and system design strategies) should be derived from the organizational strategy set (business mission, objectives, strategy and other strategic organizational

attributes). This "reactive" approach to IS Planning was later incorporated in IBM's Business Systems Planning Methodology (IBM, 1981).

King and Teo (1997, p 187 - 188) argue for different levels of integration between IS Planning (ISP) and Business Planning (BP). They suggest the existence of different levels of planning dependent on internal organisational structures. The basic structure being defined by the degree of co-operation between the IS Department and other business operations; increasingly higher degrees of co-operation demonstrate different levels of integration:

Type 1: separate planning with administrative integration. In this type of integration, there is a weak relationship between BP and ISP. Generally, there is little significant effort to use information technology (e.g., computers, and telecommunications) to support business plans.

Type 2: one-way linked planning with sequential integration. In this type of integration, BP provides directions for ISP. ISP primarily focuses on providing support for business plans.

Type 3: two-way linked planning with reciprocal integration. In this type of integration, there is a reciprocal and interdependent relationship between BP and ISP. ISP plays both a role in supporting and influencing business plans.

Type 4: integrated planning with full integration. In this type of integration, there is little distinction between the BP process and the ISP process. Business and information systems strategies are developed concurrently in the same integrated planning process.

They suggest that whilst organizations at some time tend to match these stages of ISP and BP integration it is too simplistic to claim that organizations will always follow the stages from Type 1 to Type 4 in a strict evolutionary manner. They suggest combining an evolutionary and

250

contingency perspective, arguing that "Multiple paths of evolution, bypassed phases, and reverse evolution are made possible by the combined approach" (p. 189) thus adding richness to the analysis. The model also argues for the importance of organisational and environmental contingency factors that may affect the degree of BP-ISP integration. The impacting contingency variables are broken into environmental factors (dynamism, heterogeneity and hostility of the environment) and organisational factors (Information Intensity of products/services, Information intensity of the value chain, top management's perception of IT importance, IS competence).

In a similar vein to King and Teo (1997), Earl (1993) identifies five approaches to IS Planning: Business led, Method driven, Administrative, Technological and Organisational. The business led approach suggested by Earl can be equated with King and Teo's Type 1 Planning where BP drives the IT Plan. Earl's Organisational Approach can be equated with King and Teo's Type 4 Planning where "... [the] SISP (Strategic Information Systems Plan) is not a special or neat and tidy endeavour but is based on IS decisions being made through continuous integration between the IS function and the organization" (p. 10). Earl's Method Driven, Administrative and Technological Approaches however cannot be directly related to King and Teo's strategic categories, Earl's paper being more directed towards examining the method in which IT Planning is implemented rather than solely the underlying strategic approach. Falconer and Hodgett (1998) present a more recent Australian based study using Earl's framework - this study found the majority of organisations had either a business driven approach or an integrated organisational approach to developing the IS Plan.

A Contextualised model of IT Planning

Rather than the survey based multiple case approach used by Earl (1993) and King and Teo (1997), Knights and Murray (1992) argue for the use of a single case study and suggest that management of IT can only be

fully understood through an analysis of the relations of power and identity that supplement the politics of process. They suggest that:

> Strategies are often accidental in their formation and neither a direct reflection of market forces (the rationalist approach) nor simply a negotiated outcome of political struggles (the processual approach). Rather, they are a complex product of both these features but not in a planned and consciously designed way that may be intended by practitioners seeking to control IT, their market and their own careers. More often they are discontinuous, fortuitous and produce unforeseen consequences in their realization. (p. 214)

Knights and Murray suggest a highly contextual investigation of IT management issues and propose that however 'coherent' and 'rational' the image of systems development might be, there will always tend to be unforeseen circumstances that cause serious disruption to IT strategies.

Such an argument is well supported in the case example in that the outsourcing of IT fundamentally affected IT operations and was not accounted for in the original information systems plan. As detailed in the following section it is also clear that the Information Business Plan became a political statement on the part of the IS Manager in that the title of the plan attempted to upgrade the status of information services to the level of the other primary businesses.

Comparing the two models

Knights and Murray (1992) and King and Teo (1997) provide contrasting approaches to the examination of IS Planning. At a broad level it can be argued that King and Teo examine IS planning from a structural perspective in that they use an organisational structure - the co-operation

between the IT Department and business in general - as a means of defining the stages of IS planning evolution. Whilst they consider organisational and environmental contextual factors as potential impacts on the planning process, such factors are considered at a high level and are not situational in focus.

Knights and Murray (1992), in marked contrast, examine IS Planning and implementation from a heavily contextualized basis incorporating detailed examination of politics and power relationships. Both methods can be criticised. The study by King and Teo can be said to be too heavily rationalist in its focus in that it suggests a rational logical development of IS Planning un-impacted by internal political pressures and power plays. Similarly Knights and Murray can be criticised for its too strong focus on internal situational factors and its lack of recognition of the rational logical processes that are a result of justifiable business structures and trends. As has been detailed in earlier chapters such an approach as that adopted by Knights and Murray can tend to ignore or relegate the influence of wider environmental and organisational structures as Reed (1997, p. 24) suggests:

> Theoretical approaches that are sympathetic to the post-modernistic turn in social and organisational analysis -- particularly in regard to its one-level, process-dominated social ontology and its inherent analytical tendency to collapse agency and structure into localized or micro-level social practices — offer a very different explanatory agenda and dynamic than that proffered by more structurally inclined perspectives.... The ontological status and explanatory power of 'structure' - i.e., as a concept referring to relatively enduring institutionalized relationships between social positions and practices located at different levels of analysis that constrain actors 'capacities to `make a difference' - is completely lost in a myopic analytical focus on situated social interaction and the local conversational routines through which it is reproduced.

Both approaches tend to emphasise different ends of the macro/micro perspective, each providing little recognition of the importance of the other. Both macro-level and micro-level factors need to be considered.

The Development of IT Planning at the Organization

Process modelling and TQM

In the late 1980s the organisation had attempted to develop models of organisational processes, the IT Department at the time being given the task of doing the modelling. The exercise had caused a degree of resentment as the IS Manager at the time commented:

> They [the IT department] spent a lot of time and a lot of money - they bought very expensive work stations, started building models - only for IT's benefit and people just got very pissed off with this and it didn't work because the drivers were from IT, not the business

This earlier exercise was not a success - the modelling of processes was seen to be an IT exercise and was resented by other functional areas. The necessary commitment to a process focus did not eventuate.

The organisation was moving towards being a quality organisation. It had been insisting that suppliers should have ISO quality certification and thus the argument was that the organisation itself should also follow *quality* principles. According to the IS Manager, the organisation was committed to implementing TQM principles "totally committed, from the top - managing director downwards". The characteristics of a quality organisation had been defined as being those in which the following management principles apply:

1. Customer perceptions determine quality

2. Improve system performance

254

3. Treat suppliers as partners

4. Decision making is based on information and knowledge

5. Involve everyone in creative improvement

6. Planning drives improvement

7. Lead by example

The transition to becoming a quality organization was expected to take between 5 and 10 years and the IS Manager at the time proposed a vision for IT at the Organization which detailed how the IS department would support this movement towards a *total quality* organization. For the IS Department its major task was to support the fourth principle detailed above which was providing suitable information requirements to support decision-making. The vision document was directed towards how IS could support the information requirements of high-level business processes within the organisation. This information provision requirement meant that the IS thus needed to be able to define business processes prior to being able to define information requirements.

The movement towards TQM therefore provided a good excuse for the IS department to re-open the prior investigations into processes on a more justifiable footing. It was hoped that this second attempt would prove more successful than the unpopular first attempt:

> My role in this was to surreptitiously, behind the scenes get my information systems planning done without ever being seen as to threaten the process. So I was the biggest champion for process modeling, process development and management by information that you could have. I supported our Director-Corporate Services initiative to push the process modelling through the organisation (IS Manager)

The quality initiatives provided a golden opportunity for the IS Department to actively approach the various Departments to model their internal business processes:

> ...by introducing the concept of "this is for continuous improvement; if you document your processes we [IS] will be able to work out the information requirements you need to manage those processes"- I could see how getting that - from an extremely selfish point of view – was exactly what IS wanted - without them ever having to use the term "Information System Plan" or letting anyone know that anything we did would benefit IT at all. (IS Manager)

The TQM work on business processes and information requirements was to prove the basis for production of the Information Business Plan.

Applying King and Teo's evolutionary model

The Information Business Plan was the first Information Plan for the organisation. The plan basically treated the Information function as a business, this concept growing out of the model whereby service departments were to be treated as cost centres in their own right, thus giving them the ability to charge other parts of the organisation for services. The Plan was the first such plan for the organization and was completed under a very tight schedule. The plan was largely formulated along the same lines as the other 3 internal business plans: money, assets and people.

At the time of production of the Information Business Plan the Organization was using the IBM Systems Planning methodology as their framework for planning, which, as detailed above depends on the premise that BP drives ISP. King and Teo's (1997) model suggests that, at that time, the approach adopted at the Organization would be seen as Type 2 Planning (sequential integration).

Prior to the development of this first Information Business Plan the IS Manager at the time felt that Information Services was not achieving adequate recognition. The underlying planning environment prior to a commitment to the new Information Business Plan could be categorised as Type 1 Planning in that IT loosely supported the business but not in a formal manner. The planning function at the time seemed well set to move along the evolutionary model towards a greater degree of integration between ISP and BP.

The IS Manager was very proactive in his organisational role and considered the then Managing Director as an ally. Without the impact of outside environmental pressures for downsizing the IS Manager and the Managing Director may well have moved the organisation towards being in a Type 4 Planning environment. Impacting this logical evolutionary path was the outsourcing of the IT Department.

This move towards outsourcing was partly a result of a change in state government. Governmental policies became more supportive towards outsourcing in that it was considered preferable to outsource even if the business case showed little economic advantage. As detailed in earlier chapters this policy supported the argument that information services should be considered as non-core and the concept of *information* as a business should therefore be rejected.

The Usefulness of Evolutionary Models of IT Planning

From the above analysis it is clear that the evolutionary model presented by King and Teo (1997) appears to be over-simplistic in that it assumes a high level of rationality as the driver for planning and thus tends to ignore the impact of unexpected external and internal structures and

mechanisms. For this case example, it can be seen that IS Planning has not followed a logical evolutionary model founded around business and IS integration - it was drastically impacted by severe business changes enforced by outside governmental and environmental pressures.

In terms of King and Teo's model the organisation never really got past the *Type 2* form of integration. Indeed, after outsourcing the organisation appeared to be back at a pre IS Plan stage:

> Because we are a new corporation there is no official plan in place, what we do have though is some useful historical documents which are to be referred to and the brief I am putting together for the consultancy company will mention this. (IS Planning Manager post outsourcing).

Yet the recommendation made within the initial Information Business Plan were still valid as another employee stated at the time:

> The initiatives identified by the first Information Business plan are still there and still need to be addressed. We still need a corporate information model, we still need better access to information and whatever else we had listed. How we satisfy those needs will now be quite different under the outsourcing arrangements.

The role of IS Planning, however, completely changed after outsourcing in that the organization had split into two sections – managers and "doers". Much of the planning process under this new arrangement was related to performance monitoring of the outsourcing contracts. Information provision was completely outsourced with information planning being done internally.

It appears that despite all of the efforts put into IS planning there was little to show for it. The treatment of information as a separate business was

certainly unsuccessful and the initial planning process did not envisage that outsourcing would be an option in the future. The initial planning approach can be seen to be very mechanical and formal with the IS Department having to fit into traditional planning frameworks used by the other business areas. The IS Manager post outsourcing discusses the organisation at the time:

> The organization in those days saw IT as a necessary evil. They were focused on one of two things, engineering or financial considerations and IT was something they had to have, but they didn't really want to spend any money on it and all the money they had spent, was too much - where was the return on the investment - that was the continual question. Therefore the setting up a massive information systems plan was probably at that time simply impossible.

IT was thus not considered to be a highly strategic part of the operation and as indicated above this view became even more evident with the appointment of the new MD. As described in the previous chapter in the year before the IS Manager left the organisation the new MD "never came to IT ever".

A mechanistic approach to planning

The first information business plan reflects a mechanistic approach to information through its attempt to treat information as a business in its own right. According to Kamm (1995) this placement of information at the same level as money, people and assets reflects an instrumental rationality or organizational drive for prediction and control. This perspective is associated with the following beliefs:

- Organizations exist for goal achievement and information is primarily seen as a means to allow the organization to make choices as to how to achieve specified goals

- Any such choices are constrained by human nature but the *instrumental* rationality of organizations suggests that associated human needs are predictable and that *information* allows players to

259

make rational choices based on self-interest. Information is seen as a tool in the power politics of the organization.

- Information is presented as "a tangible, almost physical entity whose value can be quantified as easily as that of other organizational resources" (Kamm 1995, p. 518). This view of information as a physical commodity allows a rigorous view as to its management. It allows its "effects, costs and benefits to be measured and agreement reached on optimal designs for information systems".

Kamm (1995) argues that such a mechanistic approach to information comes to reflect an "essentially mechanistic lack of trust between members of organizations". Such observation seems to fit well with the situation at the organization in that the IS Department was looked on as imposing on other functional operations and there was evidence of little trust between the departments. The development of shared values and consensus is unlikely with such a mechanistic view of information. Information remains primarily as a means of control, not a reflection of a shared understanding. The treatment of information within the organization at the same level as money, people and assets reflected this organizational *instrumental* or *formal* rationality.

In hindsight this mechanical approach should not really have been surprising given the heavy engineering focus of the entire organization. Most of the senior management were engineers and much of the major achievements of the organization related to engineering construction and supervision. Such a formal process proved not to be sufficiently reactive to the huge business changes underway at the time.

Conclusion

Avgerou (2001) argues for the crucial importance of examining information systems (IS) within the context within which they are embedded.

260

He argues it is important that IS practitioners consider the social context in which IS Development takes place and also the broader organisational processes under which it operates:

> Most of the knowledge developed and taught in the IS field promotes a normative professional practice, based on a limited perception of context. Broader organizational processes are usually outside the perceived terms of reference of IS practice. Further research is needed to develop appropriate analytical knowledge to equip professionals with capabilities to pursue contextualist analyses.

He suggests three principles to be followed in order to address the contextual processes involved in IS implementation, firstly that technology innovation should be considered in relation to socio-organizational change; secondly that analysis should consider the national and international context together with the local organizational and thirdly that analysis should consider both the technical/rational decisions and actions involved in the innovation process along with the important cultural, social and cognitive forces of such a process. The importance of context has been demonstrated in the example above where situational factors are vitally important in explaining the change in IS planning.

For the case under study local high level structural impositions (governmental and business trends such as privatisation, outsourcing etc) played a major role in the planning process. Such change cannot be explained through the simple evolutionary model proposed by King and Teo (1997). In the case example the initial conditions for a sensible staged approach to planning were very good as the IS Manager and the Managing Director were allies and the IS Manager had a good business focus and understanding, yet the logically expected movement towards a greater integration of BP and ISP did not eventuate as the move to outsourcing resulted in the abandonment of the Information Business Plan.

261

Another important issue to come out of the study was the political nature of the planning process. The argument that politics is heavily involved in organisational IS planning and decision making seems an obvious point, however, many research articles neglect the importance of such a view (Earl, 1993). As indicated in the case study the IS Plan was used as a tool to elevate the status of the IS Department within the organisation. This met with substantial resistance and in part may have played a role in the final decision to outsource the Department. Even the title of the plan "*Information Business Plan*" was used as a political statement in that such a title attempted to elevate the importance of IT to the organisation by placing it on the same level as the other businesses money, assets and people. Clearly the attempt did not work – the IT function was outsourced and the department decimated.

However, it is interesting to note that whilst the planning document was called the Information Business Plan, internally within the plan the information function was always referred to as information "services". The political statement in naming the plan an "Information Business" plan did not extend into the actual plan contents.

It can be argued in general that, as the business and IT function grow closer together, the likelihood of major environmental changes (such as outsourcing) impacting the planning process becomes more likely. This observation suggests that highly contextualized examination of organisational situations will become more necessary in order to properly understand the myriad structural effects within any given situation. As Stones (1996) argues *player theory* was an essential requirement to properly understand the ontologically complex social situation in which planning takes place. Similarly, in terms of an underlying meta-theory, a structure **and** agency perspective as

262

suggested by critical realism was also important in understanding the situation. The use of both elements is essential, as is consideration of their interaction over time. The strong governmental push for outsourcing (an environmental structure) was resisted by the then managing director, this agency interaction with the pre-existing governmental structure helped to explain his subsequent replacement and rapid movement to completely outsource IT services.

What's in a name? - 'BPR' versus 'Outsourcing' - a critical realist perspective on emancipation.

Redescribing ourselves is the most important thing we do (Rorty 1980, p. 358 - 359)

Poets, like philosophers, need to think of explaining to change, rather than just reinterpreting or redescribing to edify, the world (Bhaskar 1991, p. 72-73)

Introduction

This chapter uses the case example to examine whether a change in the name of the organizational process from "BPR" to "outsourcing" can be seen to be emancipatory. It provides a practical example to justify the use of critical realism as a basis for examining emancipatory practice. Such an emphasis highlights the ontological issues involved in that it argues for an appreciation of the role of the deep structures and mechanisms involved in social situations. This chapter argues that such a view is in contrast to that of critical theory, which, with its focus on epistemological issues can downplay the important *conditions for* emancipatory practice.

Following from a brief introduction to both theories the chapter then presents a vignette from the case study under investigation to highlight some of the important differences between Habermas' critical theory and Bhaskar's critical realism with respect to emancipation and emancipatory practice.

Critical realism and hermeneutic understanding

As detailed in the quotes at the start of the chapter, the critical realist has major issues with the post-modernist emphasis on re-description. As Bhaskar (1991) presents in his critique of post-modernist argument (as

264

exemplified by the post-modernist writings of Richard Rorty) hermeneutic understandings are not seen to be enough, there also needs to be an important ontological and practical commitment as well. As Bhaskar (1991, p. 73) suggests "there is more to nature than mere recognition".

Bhaskar (1991, p. 72) highlights this issue in discussing the importance of an ontological commitment in examining freedom and emancipatory action:

> ..the identification of the source of an experienced injustice in social reality, necessary for changing or remedying it, involves much more than re-description, even if it depends on that too centrally. It is a matter of finding and disentangling webs of relations in social life, and engaging explanatory critiques of the practices that sustain them.

He sees emancipation as involving the removal or change of real knowable specific constraints, rather than "merely" redescription.

Bhaskar presents the hermeneutic perspective, in contrast, as presenting freedom as being heavily dependent on the ability to discourse. This freedom to redescribe oneself in new and ultimately acceptable ways that "overcome themselves, their past and their fellow human beings" (Bhaskar, 1991, p.62) is an important part of the hermeneutic argument. This new abnormal discourse is seen to ultimately free oneself from the shackles of past perceptions (or normal discourse). Bhaskar (1991) sees such argument as an example of what he terms the *linguistic fallacy* in that it conflates the transitive knowledge focussed dimension, where discourse happens, with the intransitive dimension where particular actions consequent on new description may or may not ensue.

Bhaskar (1991, p. 60) describes hermeneutics as "the generic term for the activity of rendering intelligible what is at present unintelligible. It is the attempt to normalize discourse - that is, paradigmatically it is discourse (from

within some normal discourse) about abnormal rather than normal discourse".
Yet he suggests that hermeneutics should not be presented as solely
addressing abnormal discourse since in its everyday practice it also has a
clear role in understanding normal discourse. The external realist approach of
critical realism requires this everyday understanding as Bhaskar (1991, p. 61)
suggests "hermeneutics, or the interpretive understanding of meaningful
objects, is **always** necessary in social life - and **within** it, as well as about
it". Bhaskar sees that this interpretation and reinterpretation should not be
presented as being deliberate and separate from social life - it is a
fundamental part of living in society. Discourse plays an important role in
Bhaskar's social framework in that meanings cannot be measured, only
understood:

> The conceptual aspect of the subject matter of the social
> sciences circumscribes the possibility of measurement...For
> meanings cannot be measured, only understood. Hypotheses
> about them must be expressed in language and confirmed in
> dialogue. Language here stands to the conceptual aspect of
> social science as geometry stands to physics. And precision in
> meaning now assumes the place of accuracy in measurement as
> the a posteriori of theory. (Bhaskar 1979, p. 59)

For Bhaskar, discourse has a vital role in understanding the world but it does
not create the world. It resides within the transitive knowledge-focussed
dimension and thus has the potential to affect the world but this is not
necessarily guaranteed.

Habermas and the central role of language

Habermas' critical theory is a complex and multifaceted theory that is
impossible to explain in a short summary. Collin (1997) discusses the way
that Habermas constructs social reality and points out the central role that
language plays in such a model. He presents an example of Habermas'
hermeneutic argument in the following quotation from *On the Logic of the
Social Sciences* (Habermas 1988, p. 71-3):

> If action is linked with intentions in such a way that it can be
> derived from the propositions that bring those intentions to

266

expression, then conversely the thesis is also true that a subject can carry out only those actions whose intentions one can in principle describe. The limits of action are determined by the range of possible descriptions. This in turn is established by the structure of language in which the self-understanding and worldview of a social group is articulated. Thus the boundaries of action are drawn by the boundaries of language.

This weak form of constructivism is not totally beyond the acceptance of the critical realist except to the extent that it gives a *too central* role to language. The critical realist would see that language has an important role as a property of particular structures or as an enabling mechanism, but such influence is just one of many. The similarity between critical realism and critical theory lies in the important role that both give to critique and emancipation.

Perspectives on emancipation

Alvesson and Willmott (1992, p. 432) reflect their emphasis on critical theory when they describe emancipation as

the process through which individuals and groups become freed from repressive social and ideological conditions, in particular those that place socially unnecessary restrictions upon the development and articulation of human consciousness.

They see the purpose of critical theory as to enable "members of a society to alter their lives by fostering in them the sort of self-knowledge and understanding of their social conditions which can serve as the basis for such an alteration" (Fay, 1987, p. 23).

Alvesson and Willmott (1992) argue that "central to critical theory is the emancipatory potential of reason [-] to reflect critically on how the reality of the social world, including the construction of the self, is socially produced and, therefore, is open to transformation. The task of critical theory is to combine philosophy with social science to facilitate the development of

267

change in an emancipatory direction". They point out this view suggests that the process of emancipation is a linear cycle of "suffering-critical reflection-emancipation" and question the negativity of this view and whether the process is so simple. The individual's power to reason and consequent self-emancipation play a major role in Habermas' critical theory.

Jackson (1991) sees emancipation as seeking to achieve an individual's full potential. Flood and Jackson (1991, p. 49) see emancipation as an interest in freeing "individuals from constraints imposed by power relations and in learning, through a process of genuine participatory democracy, involving discursive will-formation, to control their own destiny" (as quoted in Valero-Silva 1997, p. 75).

Hirschheim and Klein (1994) see emancipation as involving both an organisational element and a psychological element:

> The former calls for the realization of the full creative and productive potential of individuals; the latter refers to the establishment of social conditions, which encourage effectiveness through organizational democracy, specifically overcoming existing forms of authoritarianism and social control if they perpetuate inequities of the status quo in the work place' (p. 84).

This introduction of an organisational element is necessary as it recognises the important contextual element in any emancipatory practice – 'self'-emancipation is only one part of the emancipatory process.

Habermas (1984) argues that people can follow two fundamental postures in a social situation - achieving success or communication. Actions directed towards achieving success (purposive rational) can be either instrumental or strategic. Instrumental action treats participants as inanimate constraints who can be manipulated to serve the self-interests of the main actor. In contrast strategic action would treat participants as intelligent

involved players with their own self-interests and aims - thus requiring a strategic approach to properly achieve the main actors self-interest.

The second fundamental posture that actors may represent is that of communication - the primary desire is to achieve a consensus and understanding. Hirschheim et al (1994) argues that a communicative orientation is directed towards sense making - an emergent process that involves mutual understanding and shared appreciation of situations based on common shared background assumptions and beliefs. Where such a common base does not exist, discursive action may ensue. Discursive action may result when participants have some doubts as to the clarity, truthfulness, correctness or appropriateness of any communicated message. Instrumental and strategic action fundamentally emphasise control, whereas communicative and discursive action emphasise sense making and argumentation. These perspectives on emancipation will be referred to in the case example below.

Critical theory and emancipation

The three commitments of critical systems theory are seen to be:

- Critical awareness
- Methodological Pluralism
- Emancipation

These three commitments were largely developed from the work of Flood (1990), Jackson (1991) and Flood and Jackson (1991a).

Maru and Woodford (2001) argue that the emancipatory focus, which is seen to be a cornerstone of critical theory, has been diverted largely due to a concentration on pluralism. They quote Jackson (1997, p. 359) who sees the commitment to emancipation and critical awareness as buttressing

pluralism. The focus becomes not on emancipation but on pluralism. They call for a greater commitment to the development of emancipatory development methodologies suggesting that Ulrich's critical systems heuristics is the only critical systems methodology that offers real practical tools for achieving emancipatory development.

They point out that critical systems theory reflects a practitioner focus in that emphasis is very much directed towards action. They quote Schecter (1991, p. 213) who describes the commitment to critical awareness as a never-ending attempt to uncover hidden assumptions and conceptual traps of paradigms, methodologies, plans and practices together with the conditions that give rise to them. The commitment to pluralism "is a result of the critical awareness that all systems approaches are partial and therefore have their own limitations and legitimacies" (p. 63).

It is the argument of this chapter that the epistemological focus derivable from the underlying basis of critical systems theory may neglect the ontological conditions for emancipation. If critical awareness is focused on the conceptual traps and hidden assumptions of the plans for action, then one may tend to downplay the ontological conditions necessary for action. Such an emphasis on ontological conditions is important since if the conditions are not right for emancipatory practice then it may make sense to modify planned action.

Critical realism and emancipation

For the critical realist emancipation involves the transformation of pre-existing social structures by self-determining agents. Smith (1998) defines social structures as involving "relations and patterns of behaviour which have become so well established across time and space that they provide the (largely unquestioned) conditions for human action and thought". (p. 27).

270

For the critical realist it is not enough simply to identify the inequitable structures (although this is a vital component of emancipatory practice), there also needs to be a practical commitment as well:

> ..enlightening people (or facilitating their own self-enlightenment) as to the source of the illusions and other unwanted determinations responsible for their plight is not a *sufficient* condition for their emancipation from them, and may indeed increase dissonance and despair: for emancipation the mechanisms actually generating the problems must be removed or blocked (Sayer 1997, p. 475).

Critical realism sees social structures as referring to actual forms of social organisations, as "real entities with their own powers, tendencies and potentials" (Archer 1995, p. 106). Such structures cannot be perceived and thus cannot be identified except through examination of their effects. Social systems depend on the relations between and within a plurality of structures, such relations having their own independent causal properties. The resulting system founded on the various relations has emergent properties which may affect agents acting within the system.

Critical realism is termed *depth realism* by Collier (1994) due to its recognition of deeply stratified layers of structure. Emancipation is thus seen to involve deep structural change and is revolutionary in its intent (ie deep and sudden, rather than necessarily violent). Critical realism suggests that structures will not be changed through the cumulative effect of reforms in accordance with those structures, the structures themselves must be addressed. For the realist emancipation is more than simply improving conditions within existing structural arrangements, emancipation implies the transformation of structures rather than "freedom enhancing ameliorations of states of affairs" (Collier, 1994 as quoted in Archer et al, 1998 p. 464).

Bhaskar provides little real guidance for progressing emancipatory practice apart from elevating the role of explanatory critique. Collier (1994, p 171) explains the important role of explanatory critique within the critical realist conception of emancipatory practice:

> ...the production of explanations of social institutions is not only, as a general rule, a precondition of criticising and changing them; sometimes it is criticising them and beginning the work of their subversion.

An explanatory critique of unfair institutional practices and the associated unearthing of the false beliefs supporting such practices provide the necessary pre-conditions for emancipatory practices. In this situation social science can generate practical emancipatory projects by "showing there to be (a) a need, (b) some obstacle preventing its satisfaction, and (c) some means of removing this obstacle" (Collier 1994 quoted in Archer et al 1998, p. 455). It may also have a more direct effect in that the unearthing and exposition of false beliefs can directly undermine the imposing institution.

Much of critical realist argument is concerned with explanatory critique based around such retroductive questioning as "what must be the case in order for intentional action to be possible" (Bhaskar, 1991 p.147). According to Bhaskar (1986 p. 211) emancipatory action requires the following be met:

- The results of the emancipatory action must be achievable, realistic and popular.
- The new transformed structure itself must have knowable emergent laws.

The emancipatory action itself must also meet the following requirements:

- The emancipatory action needs to be a direct result of agency intervention (ie critique) – that is, the emancipatory reasons for the action must

272

actually cause the action (otherwise it may be just co-incidence rather than emancipative practice).

- The explanatory critique must originate from within that part of society of which it is a critique.

In short, Bhaskar (1986) sees emancipation as involving the transformation of constraining structures by self-determining agents who act from within the imposing structure to produce popular realistic change that can again be structurally supported after the event.

It is useful to consider a particular example from the case under study and to examine whether Bhaskar's suggestions can provide new insights into emancipatory practice.

'BPR' versus 'Outsourcing' - What's in a Name?

As detailed in earlier chapters the organization was traditionally an engineering organisation that had little time for the information systems department - IT was seen as a cost centre with a primarily non-core role. The organisation had just developed its first Information Business Plan with the help of a supportive Managing Director. After the development of the Information Business Plan the organisation began to move towards outsourcing non-core operations. This was a result of wider governmental policies that encouraged smaller government and required a move towards privatisation of governmental departments. In the mid-1990's the investigation into this operation was termed internally as a *business process re-engineering* (BPR) project.

Initially staff accepted this *BPR* tag but over time they came to reject the term as they felt that it did not reflect what was actually happening - they felt that the study was basically an investigation into the feasibility of *outsourcing*, not *BPR*.

In a minor way I was involved in this change in the perception of the organisation towards BPR. One of my contacts at the organisation was heavily involved in the planning for the move and I provided a number of articles discussing successful BPR. On reading these case studies of successful re-engineering he came to realise that the change process within their organisation did not fundamentally involve any real consideration of business processes. He played an active role in arguing for a change in title.

The planning manager and other staff objected to the term BPR and prompted a change in title to *corporate re-positioning* and then again at a later date to *outsourcing*. According to the IS Manager at the time, the term *BPR* annoyed staff:

> Well the staff simply refused to call it that, lets call a spade a spade - 'bugger this we won't call it BPR any more', they said - it's a false term. Let's not pretend. After a while it became obvious what the agenda was and some of the directors who pushed BPR objected themselves to hiding outsourcing under the term BPR.

The religious following for BPR

Perhaps the process was termed BPR, not specifically to reflect a concentration on process thinking but as a reflection of the almost religious following that BPR had at that time and a means to encourage participation

The naming issue seems to the outsider to be unimportant, however it was critical to those involved. By calling the process *outsourcing* rather than *corporate re-positioning* or *process re-design* this recognized that people were going to be seriously affected. As the IS Manager suggested the recognition led to the establishment of career counselling and advice being given to those likely to be outsourced:

> I'd go to meetings and I'd have to try and push the party line and I did for a while, but after a while I said O.K. let's be honest because my staff had been saying 'This is dishonest, we know what's going to happen, let's be honest about it.' IT were probably some of the first to be very honest with the staff to tell them exactly what's going to happen. They started providing career counselling, we had [consultants] come in,.... to talk about the transition and a lot of people decided they wanted to go and we helped them in making sure they could tick all the boxes for gaining their severance pay and that sort of thing

It is interesting to look at how critical theory and critical realism might support an examination of this short vignette.

A critical realist perspective on the change in name

The forcing of management to refer to the process as *outsourcing* initiated a process that ultimately led to career counselling and a better severance process. Can this be seen to be emancipatory? As detailed above Bhaskar (1986, p. 211) argues that emancipatory action requires the following be met:

- The results of the emancipatory action must be achievable, realistic and popular.

- The new transformed structure itself must have "knowable emergent laws".

The emancipatory action itself must also meet the following requirements:

275

- The emancipatory action needs to be a direct result of agency intervention (ie critique) - that is, the emancipatory reasons for the action must actually cause the action (otherwise it may be just co-incidence rather than emancipative practice).

- The explanatory critique must originate from within that part of society of which it is a critique.

Looking at each requirement in turn:

- The results of the emancipatory action (ie a change in name) were achievable, realistic and popular. Staff action could not have changed the movement to outsourcing but at least the recognition that it was an outsourcing project allowed a more equitable position for concerned staff.

- The new transformed structure that was put in place after the name change did have *knowable emergent laws* in that the new policies and procedures were achievable within existing remuneration structures and did not require unrealistic concessions on the part of management.

- The emancipatory action of changing the name to outsourcing was a direct result of agency intervention (it was clearly not co-incidental) - management recognised that staff were not getting a fair deal and instituted new policies to assist staff over the difficult period.

- The explanatory critique originated from within a group who would ultimately be affected by the outsourcing. It would not have been emancipatory if an outside party originated the suggestion as the most important issue was that it came from within the organisation and reflected their heart-felt concerns.

> If I, as an outside consultant, had raised concerns directly with management concerning the naming of the process as "BPR" it would have achieved little (apart from perhaps the removal of my access to personnel).

A critical theory perspective on the change in name

Would critical theory arrive at the same conclusion? Certainly the example given is a strong reflection of the power of language. The original naming of the process as BPR can be seen to reflect instrumental action on the part of management to force the change process through. BPR at the time was very *faddish* and the tag would have been useful as a means to justify the severe change that would necessarily follow. The change in name to outsourcing represented a mellowing of this approach and can be seen to reflect the acceptance by management that personnel concerned were "intelligent involved players with their own self interests and aims" (see above).

However, as to whether the actors involved were seeking consensus and understanding this is questionable. In such a highly emotive and distressing situation as that evident within an outsourcing process, communicative action cannot be expected. The primary desire of management was not to achieve consensus and understanding, their target was to achieve the strategic action they required, the outsourcing of the department. Given this strategic purpose there could be no basis for open communicative action. For Habermas con..nunicative action is a necessary pre-condition for emancipatory practice - the process of changing the name from BPR to outsourcing would not be seen to be emancipatory for the critical theorist.

277

Conclusion

Bhaskar's theory is concerned with explanation. It argues that predictive use of theory is not possible in the open systems evidenced by social situations, all one can hope for is explanation in response to retroductive questioning and transcendental argument. On first view the heavily theoretical approach of the critical realist does not seem to provide much guidance towards effective emancipatory practice. However, there may be benefit from its explanatory focus since such explanation includes the identification of enduring real structures which may exist across organizational boundaries. This implies that one can thus learn from the situation. We can see that certain conditions are required for emancipatory action and thus ensure that such conditions are met in future practice.

Chapter 11 - The SoSM Revisited - the Importance of Social Structures

Introduction

This chapter proposes that critical realism can provide insight into traditional systems approaches such as SSM and TSI; it suggests that critical realism can be useful as an *underlabourer* to research and practice by providing a useful base from which to develop consistent theory and practice. Bhaskar (1979) also suggests that it can act as *midwife* in that it can provide new insights into traditional approaches. This chapter examines Checkland's Soft Systems Methodology (SSM), a methodology founded on interpretivism, and discusses whether critical realism can provide a useful underlabouring role and provide new insights into the approach.

Underlabourer and midwife as useful metaphors?

I recently submitted a paper on critical realism to an IS journal and one review commented that such terms as underlabourer and midwife were sexist in their associations and that critical realism was a difficult social theory that IS people would find too complex to understand and of little use I disagree totally that critical realism is too complex (after all society is complex and in order to study and understand it we may need complex theories) but agree that perhaps the terms used above can be seen to be sexist However, from my observation of social science writings, it is not uncommon to see the use of such rich metaphor (for example, see Stones (1996) and the hot air balloon) and I think, in this case, the understandings generated are useful in that underlabourer and midwife are being used to imply that critical

279

realism cannot do the work of science or social science but can seriously support it. A useful example of the insightful nature of critical realism is provided by Lawson (1997) who presents many examples of how critical realism can provide new important insights into traditional economics.

The chapter recognises the fundamental role that the System of System Methodologies (SoSM – see Figure 13) played in shaping and categorising the various system approaches and revisits this framework from a critical realist perspective. The SoSM is loosely founded on Habermas's critical theory and was primarily used to indicate the underlying assumptions of the various system approaches. The chapter examines the SoSM from a critical realist perspective and highlights the way that social structures play an important, largely unacknowledged role in the model by its prior categorisation of organisations as unitary, pluralist and coercive. The chapter further suggests that use of the SoSM as a framework for defining methodological assumptions is difficult when the concerned methodologies have significantly different meanings for one axis of the framework - "system" complexity. It is suggested that the **purpose** of the underlying system can provide a more appropriate frame for defining system approaches – such purpose being defined as interaction or transformation (Mathiassen and Nielsen 2000).

An examination of SSM from a critical realist perspective then follows and it is suggested that SSM would benefit from a greater acknowledgement of the role of underlying social structures. The chapter proposes that stakeholder analysis may provide a useful technique for incorporating such recognition of social structures. It is suggested that stakeholder analysis is particularly important where the primary function of the system is aimed at interaction. This suggestion is highlighted by placing SSM within a new

280

framework based around a consideration of the system purpose (interaction or transformation).

SSM as based on interpretivism

Tsoukas (1992) suggests that the underlying interpretivism of SSM results in a neglect of wider impacting social structures and power relationships:

> ...[the systems perspective] rightly stresses the importance of open debate among actors in order to explore different points of view and arrive at a rational consensus. However, it barely addresses the societal conditions under which debate among actors is (or ought to be) conducted. In particular, the omission to deal with cases where "there is conflict between interest groups, each of which is able to mobilize different power resources" (Jackson 1990, p. 663) results in ISP [Interpretive Systems Perspective] being unable to generate a "genuine consensus" among actors, and thus failing to realise its true potential. (p. 640)

Systems approaches founded on both the interpretivist or functionalist paradigm have been criticised for "favouring regulation and the status quo rather than advocating radical social change" (Tsoukas 1992 p. 639). Jackson (1982) makes a similar claim as does Mingers (2000a) - "SSM, in focusing exclusively on the espoused beliefs and values of individual people, thereby lost connection to the wider social and political structure that shaped such beliefs" (p. 743).

My own experience with the techniques of SSM – decision conferencing

Yet SSM and associated approaches have had huge support and consistent success over many years. My experience with SSM techniques

281

initiated with the observation and evaluation of a number of decision conferences held at Curtin University (Dobson, 1992). I have only admiration for the facilitators who bravely move into an unknown organizational situation and take on the task of deriving a shared understanding of a problem situation. Such situations are fraught with emotion and the methods that SSM and similar approaches provide are extremely useful. From the decision conferences that I was involved in, most participants were delighted with the decision conferencing process but sometimes unhappy with the implementation and follow-up. Looking back, I think this is partly a function of the concentration within the approach on the transitive domain. The focus within the decision conferencing was on "shared understanding and a commitment to action". Such a perspective does not place a high emphasis on the conditions necessary for action.

It is my view that the belief within strong constructivist approaches that participants can create a new reality can direct their focus away from an appreciation of the need for, and the difficulties in, implementation. Critical realism provides the potential to support such methods as decision conferencing but only if a weaker constructionism is accepted and ontological issues given a greater prominence. As indicated in Chapter 10 above such a perspective can then encourage an associated intransitive emphasis on the conditions necessary for change.

The SoSM

In the systems area, probably the best-known model for structuring thinking with respect to systems methodologies is Jackson and Keys Systems

of System Methodologies (1984) (SoSM). This framework suggested that a mapping of system complexity against the decision makers environment allowed a useful means of categorising systems methodologies to provide an indication as to their underlying assumptions concerning systems complexity (simple or complex) and participant situation (unitary, pluralist or coercive). Banathy (1988) and Keys (1988) both used the SoSM to argue that an examination of problem contexts can suggest suitable methodological approaches. According to Jackson (1990) this use of the SoSM was seen to be a functionalist interpretation of the framework and such a use for the SoSM was invalid as problem context and system's characteristics are in the eye of the beholder.

The framework was developed as a practical tool to encourage methodological pluralism by suggesting a critical approach to the use of systems methodologies. The framework encompasses such diverse systems approaches as Beer's Viable System Model, Forrester's System Dynamic Modelling, Ackoff's Interactive Planning and Checkland's Soft Systems Methodology. The difficulty with using *system complexity* as a means of categorization is that the approaches differ as what in fact a *system* is. For example, Mingers (2000a) points out Checkland's SSM regards the concept of a "system" as being purely an epistemological device having no ontological foundation. According to Checkland systems thinking is a "particular way of describing the world" (Checkland, 1983, p. 671). A theory such as Forrester's System Dynamic Modelling, however, provides a far greater solidity to the concept of "system". Forrester's concept of systems as real objects with important cybernetic interactions provides an ontological foundation for systems and thus allows for a deeper explanatory analysis of systems and their components.

Mingers (2000a) suggests that the lack of solidity within SSM towards the concept of a system is one of the major shortcomings of SSM. "With a

single blow Checkland reduces the force of systems thinking" (p. 749) by its placement of SSM solely within the conceptual world. Checkland himself, in discussing action research publishing, points out one of the difficulties associated with such a placement - theoretical discussion can be presented as being in the eye of the beholder, thus leading to a possible neglect of detailed epistemological frameworks:

> [they] omit[s] the need for a declared in advance intellectual framework of ideas, a framework in terms of which what constitutes knowledge about the situation researched will be defined and expressed. This is essential, since what constitutes knowledge in human situations should not be taken as a given. The research might lead to a framework being modified, or, in an extreme case, abandoned; but without a declared-in-advance epistemological framework it is sometimes difficult to distinguish researching from novel writing...It is unfortunate that the absence of an emphasis on this crucial requirement – crucial, that is, if the findings are to be openly arrived at, not based on hidden hunches and intuition – is rather too characteristic of the modest stream of literature on action research since the 1950s. (Checkland and Holwell 1998, p .23)

Checkland's original SSM as being close to critical realist interpretation

Checkland presented in his earlier writings a model of the SSM process which involved the continual movement from the conceptual world to the "real" world to confirm model feasibility. This approach has been abandoned in more recent years but it is interesting to note this early parallel with critical realist perceptions on reality. The critical realist asserts that "real objects are subject to value laden observation" and as for the original SSM model sees the reality and the value laden observation of reality operating in 2 different dimensions, one intransitive and relatively enduring; the other transitive and changing.

> Along with SSM and similar interpretive approaches the critical realist agrees that our knowledge of reality is a result of social conditioning and thus cannot be understood independently of the social actors involved in the knowledge derivation process. However, in contrast to SSM, it takes issue with the belief that the reality itself is a product of this knowledge derivation process.

Critical realism places a strong emphasis on the unearthing of the deep structures and mechanisms that make up the world. It is interesting to examine the SoSM in general, and SSM in particular, from such a perspective.

	Problem Context		
	Unitary	Pluralist	Coercive
Simple	Operations Research Systems Dynamics	SAST	Critical Systems Heuristics
Problem Type			
Complex	Viable Systems Model	Interactive Planning SSM	??

Figure 13: The System of System Methodologies with example approaches
(from Flood and Jackson, 1991, p. 42)

A Critical Realist Perspective On The SoSM

The SoSM maps the relationship between the problem context (unitary, pluralist or coercive) and the problem type (simple, complex). The problem context is seen to be definable dependent on the relationship between the main actors. Critical realism would view the consequence of such relationships as social "structures".

286

For the critical realist the SoSM framework has a limited conception of structure with the SoSM equating organisational context with organisational *structure* (unitary, pluralist or coercive). A critical realist perspective would suggest that the organisational context reflects a complex interplay of multiple interacting structures and mechanisms (both internal to the organization and external to the organization) that affect the agency action of *IS development and deployment* in various ways. Every organisational situation necessarily involves a plurality of structures - a structure being seen as an internal network of social relations. For the critical realist a coercive situation may indicate the presence of a dominating inequitable structure that needs to be addressed. The emancipatory focus of critical realism would suggest that this inequitable structure would need to be made explicit as the first step in its dismantlement.

Given the categorisation evident within the SOSM, it can be concluded that in general the systems approaches considered are each placed firmly within a unitary, pluralist or coercive structural situation. Structure is therefore not considered to be a variable and thus does not play a pivotal role within the various approaches. This is in conflict with a critical realist perspective which sees social structures as all important.

SSM and Social Structures

SSM is a practical methodology - its focus being on achieving systemically desirable and culturally feasible change. This focus on accommodation has opened the methodology to the criticism that it is ultimately overly conservative and does not encourage radical change (Tsoukas, 1992). Rose (2000, p. 78) highlights the importance of interpretation within Checkland's SSM:

> The epistemological, or learning premise of his work involves the conscious movement between unstructured perceptions of

287

the world and perceptions structured by systems principles, in order to foster debate.

He argues that Checkland's SSM does not provide a specific model on organisational change nor does it provide a mechanism for explaining the reproduction of social structure between people:

> Though Checkland clearly adheres to the notion of a socially constructed world, the mechanisms of that social construction are less clearly specified. The closest his writings come to these understandings are in his commentary on Vickers. (p. 77)

Such a focus is a function of the epistemological focus of SSM and interpretivism in general. Such a view is in contrast to an ontological realist position which strongly emphasises the nature and interactive properties of the social objects being enquired into.

In line with Vickers (1965), Checkland and Holwell (1998, p. 48) argue that the soft systems movement sees organizations as "social entities which seek to manage relationships". This so-called *tribal* view sees organizations as relationship managing entities, yet the SSM in practice does not particularly emphasise the importance of such relationships concentrating more on the ultimate shared perspective. Within the method, an early recognition is given through the development of a rich picture and root definition to reflect such relationships, but, once these interactions has been identified and accommodated there is little further reference to the rich picture and identified structures.

The neglect of an interactive component within SSM

Mathiassen and Nielsen (2000) argue traditional use of SSM within the IS field has tended to neglect the interactive or relational aspect of information systems. They claim that SSM has tended to focus more on the transformative purpose behind information systems as exemplified in the root definition which requires the inclusion of a transformation. They suggest that

288

SSM would gain a wider application if it concentrated on the interaction aspect of IS as well as the traditional systemic concept of transformation. As a part of this change in focus they suggest that depending on the system purpose the root definition may include a definition of the interaction process rather than the transformation process.

In line with Mathiassen and Nielsen (2000), Rose (2000, p. 102) argues that the two primary metaphors reflected within Checkland's SSM are transformation and interaction. He suggests that traditionally transformation has been the primary focus of SSM and action research in general. For the action researcher the primary aim of research intervention is seen to be transformation with the emphasis on systematically desirable and culturally feasible *change*. In my view, this concentration on action and process has tended to result in a neglect of underlying structures such as power relationships and external impacting structures.

Rose (2000) argues that later versions of SSM have concentrated more on the idea of the organization as a human activity system with the primary focus on relationship maintenance. This move towards an interaction metaphor may be seen as an attempt to address criticisms of SSM that it does not adequately reflect pre-existing structural relationships. Within the SSM rich pictures have always provided a mechanism for recognising such relationships, yet the structures identified through these rich pictures are not used to any great extent in the later formal modelling process. The rich picture is primarily used to understand the system and to define the root activity of the system - this reflects a move back to process thinking and the transformative metaphor rather than towards social structures and interaction.

289

The neglect of structures within SSM

From a critical realist perspective the concentration within SSM on transformation and process misses much of the story. As Reed (1997) argues, approaches that concentrate solely on processual issues and situated social action can tend to ignore important wider impacting structural impositions which can "constrain actors' capacities to make a difference" (p. 25). Approaches which 'work with "flat" or "horizontal" social ontologies in which the processual character of social reality totally occupies the analytical and explanatory space available' (p. 24) face the danger of ignoring important structural constraints.

Stakeholder analysis

The incorporation of techniques such as stakeholder analysis within SSM seems a sensible means to address this neglect of social structures. As an example of this approach Vidgen (1997) proposes an extension of Multiview 2 to include stakeholder analysis. He proposes that firstly a rich picture be developed to reflect the complex and messy situation under investigation. Once completed the rich picture is then used along with a stakeholder map to identify the concerned stakeholders. Once the concerned stakeholders are identified it is then possible to consider how the new system might impact each of their situations. The identification of such possible stakeholder effects allows for their inclusion in the ultimate new system. Stakeholder analysis provides an opportunity to more clearly reflect the pluralism Vidgen sees as evident in all systems development situations - he feels that a pluralist perspective is invariably the norm in systems projects and rejects the "simple" category reflected within the SoSM.

It is interesting to note the close relationship between the definition of stakeholders and the critical realist conception of social structures. Vidgen (1997) quotes Mitroff and Linstone (1993, p. 141) who see stakeholders as "any individual, group, organization or institution that can affect as well as be

affected by an individual's, group's, organization's or institution's policy or policies". Similarly, the Stanford Research Institute of 1963 is quoted as defining stakeholders as "those groups without whose support the organization would cease to exist". Vidgen suggests the organization be seen as a web of stakeholder relationships rather than a single entity. This perception is similar to the critical realist perception of structure as an internal network of social relations.

Adopting a simplistic support to this argument derives Figure 14 which suggests that when examining interactive systems social structure is particularly important. In this case the use of a technique such as stakeholder analysis can be most useful. When examining transformative systems structural analysis is perhaps less important and SSM could be used in the traditional manner.
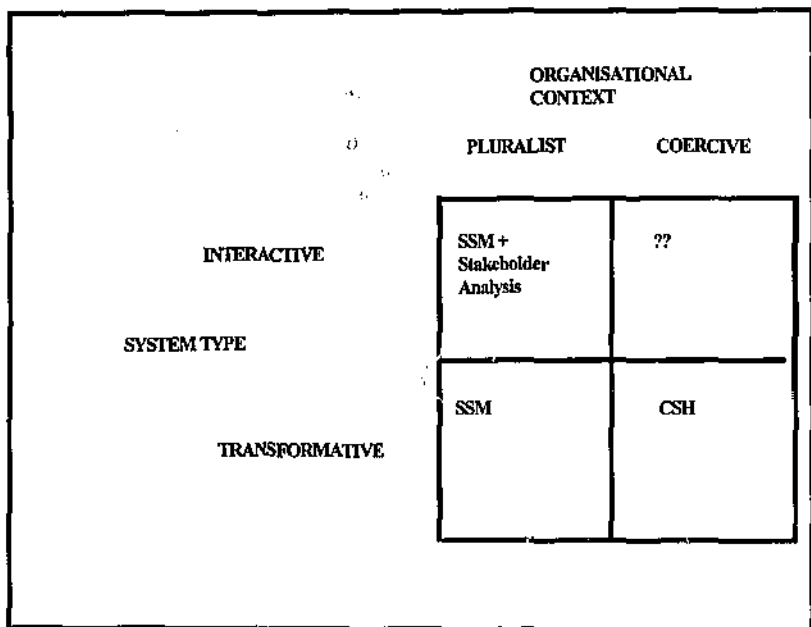
	ORGANISATIONAL CONTEXT	
	PLURALIST	COERCIVE
INTERACTIVE	SSM + Stakeholder Analysis	??
TRANSFORMATIVE	SSM	CSH

SYSTEM TYPE

Figure 14: A framework for suggesting a systems approach

Conclusion

Historically it can be argued that one of the most powerful components of SSM is its interpretive stance. As Holwell (2000) suggests "Checkland's work is recognised for adding interpretive thinking to the fields of systems, problem-solving and IS; so much so, that his argument and language have become part of the general discourse" (p. 778). Holwell argues that Checkland's (1981) emphasis on the problem situation rather than the problem itself provided a fresh way of looking at organisational problem-solving and allowed a deeper recognition of the problem context.

Yet, this chapter suggests that along with the benefits provided by the underlying interpretivist perspective of SSM, there are also weaknesses. As detailed in Chapter 5 interpretivism has its shortcomings, not the least of which is its concentration on individual perceptions and its neglect of wider impacting social structures. This chapter suggests that SSM can grow further through a clearer recognition of social structures and their impact on problem situations. Checkland readily admits that the SSM resides within what he terms as the conceptual domain; this emphasis on systems *thinking* being one of its major strengths. However, from a critical realist perspective, such a singular emphasis also has some disadvantages. It is suggested that a major disadvantage is the neglect of social structures.

The inclusion of stakeholder analysis within a soft systems investigation is suggested as one way of addressing this issue, particularly in the examination of interaction systems which depend more heavily on existing and potentially important social structures. As detailed in Figure 14 if the primary focus of the system is interaction then a more detailed investigation of stakeholders and their concerns is essential; for a transformative system a traditional use of SSM with its strong focus on process and transformation may be sufficient. Whilst the usefulness of such a model needs to be

293

examined in practice the suggestion that SSM incorporate a greater recognition of social structures seems sensible.

Chapter 12

A review of the thesis progress

This thesis reflects a strong emphasis on theoretical issues. This is partly a consequence of the commitment to adopting a philosophy such as critical realism. Critical realism proposes that philosophy plays an important and integral role in the research process. Such a stance requires a strong understanding of the underlying philosophical position. An explanatory target also suggests that philosophical argument must play an important role in the critical realist method since it often requires transcending, or speculating, perhaps non-observable mechanisms and structures to explain perceived happenings. Thus as Wad (2001, p. 2) argues:

> If we take explanation to be the core purpose of science, critical realism seems to emphasise thinking instead of experiencing, and especially the process of abstraction from the domains of the actual and the empirical world to the transfactual mechanisms of the real world.

Another major reason for the strong focus on theory is that it reflects my own journey in that, having little background in the social sciences arena, I spent a long time on understanding the basics of social philosophy. In particular the initial chapters of this thesis are an attempt to "create a space in which my identity can feel safe" (Knights 1992). They reflect my initial overwhelming confusion regarding interpretive approaches and my ultimate conclusion that an interpretive account is not enough:

As detailed in Chapter 5, interpretive frameworks such as that proposed by Galliers (1991) give little weight to the nature of the underlying objects of research. I found such emphasis confusing as it did not allow a

clear direction for selection of a research approach. Critical realism in providing a pre-definition of the basic nature of the underlying social objects on which the research is based helped to alleviate this issue.

I had chosen interpretivism as the underlying focus for the thesis primarily due to the background of my supervisor and my own interpretive experience at a masters level (Dobson 1992). As Orlikowski and Baroudi (1991) point out

> Research approaches adopted by all researchers... are influenced to a greater or lesser extent by the various institutional contexts within which they are trained and work...They are heavily influenced by the doctoral program attended, the agendas of powerful and respected mentors, the hiring, promotion and tenure criteria of employing institutions, the funding policies of agencies, the rules of access negotiated with research sites, and the publishing guidelines of academic journals.

I was not comfortable with this a priori stance towards the adoption of a research approach as I felt that the research object should have more influence on the decision. The only way I could move on was to, firstly, appreciate the philosophical basis of the various approaches and then, secondly, go back to considering what I felt would best explain the situation under study. In hindsight, this selection method exemplified my underlying realist leaning in that it assumed that ontology should drive methodology. It also suggests that research requires an *authentic* use of theory (Prasad, 1997). This emphasis can be seen in the way that the thesis is presented. Only after completing my initial grounding in social philosophy did I feel comfortable addressing some of the practical aspects of the use of critical realism. These practical insights are presented in the later chapters.

The major contributions of the thesis

The major contribution of the thesis is to highlight the importance of philosophical awareness in progressing research. It argues strongly against the use of *a priori* theory and provides a practical example of how philosophy can provide the opportunity to "be your own guide" and to "work out consciously and critically one's own conception of the world" (Gramsci 1971). The thesis demonstrates how philosophy can support research in a useful and practical manner. It also documents how such philosophical grounding can allow the researcher to find their own path and by so doing refuse "to accept passively and supinely from outside the moulding of one's personality" (Gramsci pp. 323-324).

More particularly it responds to the call for a greater philosophical awareness within the IS field (see Chapter 3 above) by presenting critical realism, a relatively new social philosophy that elevates the role of philosophy in research. The thesis highlights the practical implications of such a stance in a number of ways by:

Elevating the importance of the research object

The thesis demonstrates that the adoption of interpretivism as an underlying philosophy requires important philosophical presumptions that limit the likely research outcomes. As Archer (1995, p. 17) points out "What social reality is held to **be** also **is** that which we seek to explain". The social reality assumed identifies what there is to be explained and rules out explanations in terms of entities or properties which are deemed non-existent. Interpretivism and associated ethnographic approaches have a predominate focus on the micro aspects of social situations, thus restricting the possibilities of firstly identifying and secondly analysing macro level social structures.

Usefully explaining the organizational situation

The thesis demonstrates how the adoption of critical realism provides a
better ability to recognize and include structure as an important
component in social analysis. Critical realism is shown to provide a
basis for understanding how the outsourcing decision was made in that
it allows for the recognition of the important external social structures
that so fundamentally impacted the outsourcing decision.

Demonstrating the critical realist model of explanation

It provides a good example of the critical realist model of explanation
which involves three basic steps (Outhwaite 1987, p. 58) "the
postulation of a possible [structure or] mechanism, the attempt to
collect evidence for or against its existence and the elimination of
possible alternatives". As Outhwaite goes on to suggest the realist
suggests that we have a good explanation when (i) the postulated
mechanism is capable of explaining the phenomenon (ii) we have good
reason to believe in its existence (iii) we cannot think of any equally
good alternatives.

As detailed in Chapter 7 and 8 one possible explanation of the move to
outsourcing is the proposal that knowledge dissemination from
concerned technology suppliers and consultancy firms could have
convinced the organization to adopt such innovative practice as
outsourcing. This proposal is rejected primarily due to the fact that
there was little evidence of such influence. It is proposed that
outsourcing is different from many other innovative practices in that
outsourcing is such a stressful and career-changing process that it
seems unlikely that agents directly impacted by the move would
support the move. It is therefore proposed that there must be an
internal or external structure in place forcing the move to outsourcing.

Once this structure was proposed, the mechanism by which the structure impacted the organisation needed to be identified. This mechanism became clearer on interviewing the past CEO of the organization who highlighted the critical role of the government in the hiring and firing of CEOs. This thus identified the associated mechanism by which the governmental structure made its effects felt within the organisation and was well supported by the organizational evidence of the departure of the CEO immediately prior to outsourcing.

Demonstrating the negative implications of social constructivism

The thesis argues against social constructivist approaches that present managers as operating in a passive, lemming-like manner in their adoption of management fads and fashions. Through the adoption of critical realism it calls for a deeper understanding of the managerial decision-making environment and a greater awareness of the pressures under which managers operate. For the case under review, rather than adopting a social constructivist argument which tended to see managers as passively accepting such innovative practice as outsourcing, critical realism suggests that managers have an understandable and pro-active role to play in responding to and amending the real structures and mechanisms that constrain their decision-making.

Providing practical examples of critical realism as supporting research

More generally the thesis provides some examples of the practical outcomes of a critical realist approach:

- It uses critical realism as a basis for critiquing a widely used framework for selecting IS research approaches (See Chapter 5 for a critique of Galliers 1991)

299

- It provides new insight into the foundations underlying the important SoSM framework and highlights the implied importance of structure within the frame (see Chapter 11)

- It critiques SSM from a critical realist stance and emphasizes the need for a greater recognition of the important role of social structures within the methodology

- It uses critical realism as a basis for examining innovation diffusion and by so doing provides a useful alternative to Rogers (1995) knowledge-focussed diffusion theory.

- It demonstrates that for the case study under review the IS planning approach adopted did not follow the evolutionary models suggested by some (for example, King and Teo 1997). It supports the realist argument for greater commitment to contextualized examination in developing such models.

Disadvantages of a critical realist approach

As discussed in earlier chapters, critical realism, through the retroductive focus of its' questioning, is better suited to some research targets than others. The understanding of causation is a particular target for most realist studies and, given the complexity of social life, a particularly difficult aim. As detailed in earlier chapters, for the coercive situation documented in the case example it was perhaps easier to argue for this causation by an external imposing structure since the structure was so dominating in the case example. The adoption of critical realism in a more obviously pluralist situation may well prove more difficult.

Another major disadvantage of using critical realism is its lack of practical exemplars. This is highlighted in the recently announced annual conference of the International Association for Critical Realism (IACR) which

focuses on *Realism, research and practice.* The proposed conference papers clearly demonstrate that there are very few examples or guidelines for developing critical realist practice. Given the fact that the use of critical realism is presented as being conditional on successful practice, this issue is of great importance if critical realism is to become more widely used. The difficulties in applying critical realism are eminently displayed in the lack of such exemplars. The philosophical focus within critical realism is both an advantage and a disadvantage in critical realist studies as such focus does provide good grounding but requires an in-depth pre-knowledge that many researchers may be reluctant to pursue.

As Stones (1996) also suggests the lack of suitable methodologies to reflect the ontologically bold arguments evident within critical realism is also an issue. Critical realism is said to ontologically bold and epistemologically cautious (Outhwaite 1987) and thus, as argued in earlier chapters, there needs to be a less cautious approach to methodology use. Studies need to be initiated that provide answers to such questions as:

- What particular features should a *critical realist* study encompass?

- What changes, if any, are needed in data collection for a critical realist study? As detailed in chapter 1, my feelings concerning data collection for critical realist examination is that it needs to specifically target the opinions of the powerful, as quite often they are the only people who fully understand the impacting structures in place. This, of course, goes against ethnographic examination which specifically aims at the less powerful. There needs to be a careful balance between such differing aims.

- How can the techniques and experiences gained through qualitative and interpretive type approaches be incorporated into realist examination?

As detailed in earlier chapters I can see that critical realism would be a particularly useful underlabourer in the examination of ERP systems (see Chapter 2). ERP systems have an important structuring effect on organizations and I feel that critical realism, whilst not having a specific representation of technology within the model, can usefully allow a representation of this structuring role. Similarly I also argue in Chapter 5 for the use of critical realism to examine the role of mentoring relationships in organizations. It is my view that the importance of mentoring relationships, particularly in private industry, is under-represented in the research literature. Critical realism would provide a useful basis for investigating such relationships.

Critical realism as avoiding many of the dualisms of current social theory

Despite the disadvantages of such an approach, I personally feel that there is considerable scope for its' use in investigating the social situations implicit in IS implementation and use. As detailed in the Introductory chapter there are many reasons for the adoption of critical realism in IS research. Perhaps one of the major advantages in such an approach is that it provides the opportunity to avoid many of the dualisms evident in the past as Bhaskar points in a recent interview:

> The Possibility of Naturalism [Bhaksar 1979] argued against the dualisms and splits that dominated the then contemporary human sciences – and which to a large extent, despite critical realism and related currents of thought, continue to do so now. What were these dualisms? They were dualisms between positivism and hermeneutics; between collectivism and individualism; structure and agency; reason and cause; mind and body; fact and value. In each case, critical naturalism argued for a third sublating position which could reconcile these

302

stark polarities and oppositions, and which could situate the two extremes as special cases of the more general sublating position. Thus, against positivism and hermeneutics, it argued for a critical naturalism based on a realist philosophy of science. Against collectivism and individualism alike, it argued for relationism - that is, the conception of society as essentially relational in character, as not consisting either of collectivities of individuals or individuals, but as concerned with the relations between individuals. Then in opposition to the dichotomy of structure and agency, it argued for what I called the transformational model of social activity, which is not to identify structure or agency, but to trace their distinctive features and mutual interdependency, in a way that Margaret Archer and others have shown is distinct from, although related to, that position that Giddens has put forward under the theory of structuration. (Norris, 1999)

Given the importance of Bhaskar's writings to the critical realist movement I feel it is thus appropriate that he should have the final say in this thesis.

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