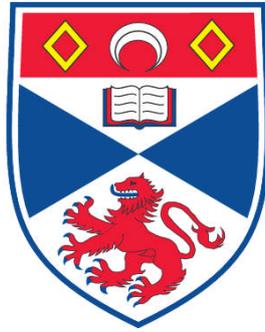


**PURSUING SUSTAINABILITY:
AN EXPLORATORY STUDY OF ORGANISATIONS THAT HAVE
ENVIRONMENTAL MISSIONS**

Nick Barter

**A Thesis Submitted for the Degree of PhD
at the
University of St. Andrews**



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Pursuing Sustainability:

An exploratory study of organisations that have environmental missions

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Abstract

Numerous management scholars argue that management theory is anthropocentric and considers humans as being separate from the environment. Further anthropocentrism does not enable theory and organisations to contribute to sustainable development. To counter this it is argued theory and organisations should embrace an environmental paradigm that does not separate humans and the environment. This exploratory research attempts to identify whether any organisations operate with an environmental paradigm. The research questions focus on paradigms and some of the tensions surrounding the human-environment debate, such as; sufficiency versus profit maximisation and quoted status, money as a means or an end and notions of boundaries between the organisation and the environment. The questions are explored with individuals from 23 environmentally focused, primarily for profit, organisations. The results indicate that the organisations operate with an environmental paradigm, do not perceive of boundaries between the organisation and the environment, do not pursue profit maximisation, can demonstrate sufficiency, view money as a means rather than an end and do not have a favourable view of quoted status. Furthermore, the interviewees do not separate their world into two realms, one social and one natural. Narratives that arise include the organisations operating to a mode of mission and money and that an aphorism of "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197) can be applied. In short, the results indicate some challenges to conventional management theory, in particular strategy and competitive advantage, and that the organisations interviewed could help to, some extent, enable sustainable development.

To close, the hope of this study is that its narratives and the conceptual tool it has prompted, provide succour to students and managers who want to develop a 'future normal' of theories and organisations that better enable sustainability.

Acknowledgements

The writing of this study has been difficult; in retrospect the easy part was conducting the interviews. During this study I have received advice and comment from far more individuals than I could mention and prior to listing particular individuals or groups of individuals who have influenced my thoughts, I would like to make particular mention of one individual and one organisation. The individual is Prof. Jan Bebbington (my PhD supervisor); Prof. Bebbington gave me the opportunity to conduct a PhD and stuck with me and it through highs and lows, for that I am eternally grateful. The organisation is the ACCA (The Association of Chartered Certified Accountants) who provided a grant to help realise the research and thus eased the tension on my bank account.

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Chapter 1

Introduction

Introduction

This study was seeded by two concerns that helped to move it towards its metaphorical starting blocks and the beginnings of a research project. These concerns arose from my time in industry and the status of humanity being limited to one planet. In industry, I experienced a singular focus on monetary profit in the companies I worked with and for, and this focus was to the exclusion of others outside of the companies be they human, non-human or the physical environment. This monetary focus did not sit comfortably with me and I often encapsulated my thoughts in a phrase which I would sound out in personal settings; "I have no idea why I am helping to make rich people richer, when the world is full of people who do not have enough to eat; what am I doing?" Building upon this concern was my view that developing strategies to increase an organisation's profits was extremely easy because as long as the strategy increased revenues and diminished costs (a simple linear equation), the objective could be achieved especially if concerns other than money are ignored. Consequently when in industry I was not only questioning the moral purpose of my employment, I was also finding that the work was not intellectually stimulating. In short I realised I was wasting my time. My concerns regarding a single planet were with regard to, perhaps like many people, an intuitive understanding that there is only so much 'stuff' to go round. Hence if I surrounded myself with more artefacts then something else has to be compromised, for example; depleted natural resources or reduced tropical rainforest coverage, etc.

Nevertheless, although I had concerns at the same time I was also cognisant that I enjoyed strategy and viewed organisations as powerful agents for change. Thus matching my concerns to my functional speciality and view of organisations moved this study off the starting blocks. At its core this study has a desire to begin the search for ways of organisational doing that captures the dynamism in commerce within a wider moral framework that is informed by the normative underpinnings associated with humans sharing a single planet and a questioning of what is reasonable. The challenge inherent in this is that as an academic I am aiming to try and move conventional strategy conceptions away from simplistic and linear equations that are focused on increasing monetary profit alone (for example see; Collison, 2003; Gladwin, et al. 1996, Whittington, 1993) towards more complex and

multifaceted conceptions that are non linear because they aim to balance economic, social and environmental concerns on a single planet. The ultimate aim is that in the future the content of the business curriculum will be completely different and students will not, as they currently do, have to engage in the ontological trickery of viewing a business and its requirements as being separate to and superseding of the wider environmental and societal context.

This study has a particular focus on environmental degradation. Environmental degradation has been widely discussed and documented by scholars (for example see: Daly, 1996; Ekins, 2000; Gray, et al., 1993; Hawken, et al., 2000; Lovelock, 2006; Meadows, et al., 2005; Weisacker, et al., 1998) and agencies and institutions (for example see: The World Wildlife Fund (WWF) Living Planet report, 2006; The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, 2007; the United Nations Millennium Ecosystem Assessment Report, 2005 and the Worldwatch Institute, 2004). These scholars and agencies outline that environmental degradation has roots in society and its economic institutions and organisations. This exploratory research has at its core an attempt to understand whether business organisations can be part of the solution to environmental problems. In particular the research intends to identify if there are business organisations which have a paradigm¹ that integrates the environment in some form (an environmental paradigm).² This focus is taken as the management literature indicates that business organisations operating to an environmental paradigm can support ecologically and socially sustainable development³ (Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan,

¹ For this research a paradigm, as discussed in chapter two, is defined as "a world view or frame of meaning which is composed of the shared values, core beliefs and assumptions of the members of a certain group" (Halme, 1996:97).

² The term 'environmental paradigm' is used here to denote a paradigm that goes beyond those that are purely anthropocentric. For example, Egri and Pinfield (1999) discuss two forms of environmental paradigm, reform and radical. Radical is based upon ecological principles such as holism, diversity and limits; thus it moves significantly away from anthropocentrism (which constructs a dualism between humans and nature (Eckersley, 2003)), whereas reform modifies anthropocentrism "to include biocentric values to the extent that there is sustainable development" (ibid: 215).

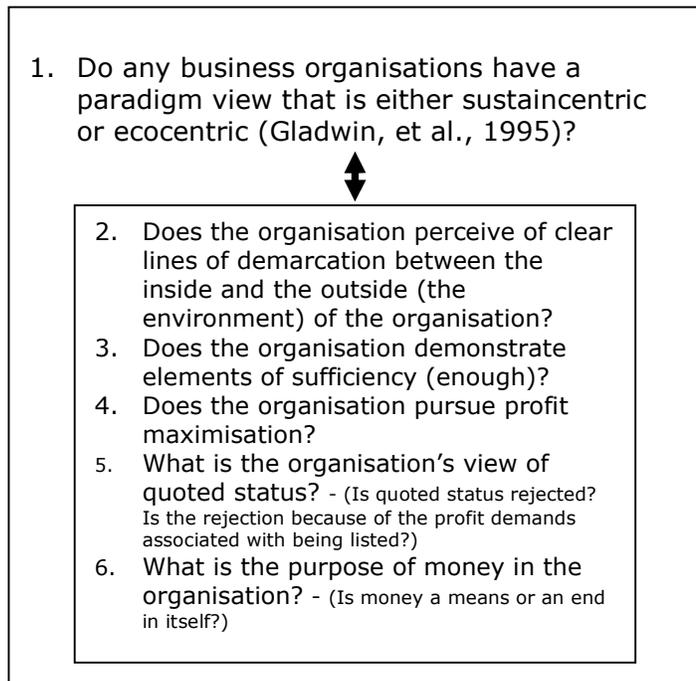
³ A common definition of sustainable development is "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (The World Commission on Environment and Development: The Brundtland Commission, 1987:8). Critiques are often levied at this definition such as; what is a need, the inability of not yet born generations to talk to present generations and it essentially being a cover for the pursuit of modernity (Banerjee, 2003). However, it is generally accepted that it is a "big idea of general usefulness" (Gladwin, et al., 1995:976). Further, rather than focusing on a specific definition, Brych, et al., (2007) indicate sustainable development can also be viewed as a normative concept. Where sustainable development is not "proven or demonstrated, but, rather, asserted" (Brych, et al., 2007: 29, citing Dryzek, 1997:123) and hence it is a "vision of the future" (Brych, et al., 2007:29).

1999; Hanna, 1995; Halme, 1996; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a).

Supporting the environmental paradigm question at the core of this research and in keeping with the exploratory nature of the study, five additional research questions are also investigated (Figure 1.1 outlines the six research questions).⁴ These five additional questions on boundaries, sufficiency, profit maximisation, quoted status and the purpose of

money aim to explore particular points of tension that the literature brings forward regarding organisations supporting ecologically and socially sustainable development.

Figure 1.1: Research Questions



The research was conducted with organisations that have environmental commitments as part of their core mission as opposed to the commitments being part of an addendum. To illustrate, organisations such as Triodos Bank and The Green Stationery Company were interviewed and their mission statements are as follows;⁵

- *'Triodos Bank finances companies, institutions and projects that add cultural value and benefit people and the environment, with the support of depositors and investors who want to encourage corporate social responsibility and a sustainable society. Our mission is;*
 - *To help create a society that promotes people's quality of life and that has human dignity at its core.*
 - *To enable individuals, institutions and businesses to use money more consciously in ways that benefit people and the environment, and promote sustainable development.*

⁴ The research questions are developed in chapter two. As outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

⁵ Chapter 4 and Appendix 4 present an overview of the organisations approached and interviewed for this research.

- *To offer our customers sustainable financial products and high quality service.'* (Triodos Bank, www.triodos.co.uk)
- *'The Green Stationery Company is the UK's premier recycled paper and green office products supplier. We select products that are environmentally benign or have environmental advantages over the standard office products. We aim to maintain business practices consistent with the goals of sustaining our fragile environment for future generations, within a culture that respects life and honours its interdependence.'* (The Green Stationery Company, www.greenstat.co.uk)

The research method was semi-structured interviews, the questions were not sent to the interviewees in advance, and between August 2007 and January 2008, 23 interviews with 25 individuals from 23 organisations (see Table 1.1 for an overview of the organisations) were conducted.

Table 1.1: Organisations Interviewed

Organisation Name/Code	Organisation Name/Code
1. Pillars of Hercules (Organic food producer and retailer)	2. TerraCycle (Producer of plant fertilisers from waste)
3. biome lifestyle (Online retailer of home wares)	4. Company A (Producer of Fast Moving Consumer Goods)
5. Beyond Skin (Online retailer of shoes)	6. howies (Producer/Retailer of clothes)
7. Company B (Producer and retailer of business and consumer services)	8. Green Stationery Company (Producer/Retailer of consumer and business Stationery)
9. Recycline (Producer and Retailer of Consumer Durables)	10. revolve (Producer/Retailer of consumer and business stationery and gifts)
11. Green Building Store (Producer/retailer of Building Goods/Services)	12. Terra Plana (Producer/Retailer of shoes)
13. seventh GENERATION (Producer of Business and Consumer Cleaning Products)	14. By Nature (Online retailer of natural products and services)
15. Ecover (Producer of Business and Consumer Cleaning Products)	16. Belu (Producer of bottled water)
17. Company C (Producer/Retailer of Business and Consumer Cleaning Products)	18. Company D (Producer/Retailer of Financial Products)
19. People Tree (Producer of Clothes)	20. BioRegional (Sustainability focused charity and creator of spin-off companies)
21. Triodos Bank (Financial Services to Businesses and Consumers)	22. Suma (Producer/Wholesales of Food)
23. Company E (Producer/retailer of wood products)	

As Table 1.2 indicates the interviews were with senior individuals in the organisations. This focus on senior individuals was intended as the literature highlights that the views of the key decision makers can be assumed as being

representative of the organisation (for example: Egri and Herman, 2000; Plaza-Ubeda, et al., 2007; Sharma and Ruud, 2003; Andersson and Bateman, 2000). The interviews were recorded and transcribed and the text was then subjected to various processes of analysis. These processes included capturing the summary points made by the interviewees (data interpretation 0), coding transcript text to themes (data interpretation 1), coding text to the environmental paradigm scheme offered by Gladwin, et al., (1995)⁶ (data interpretation 2) to analysing the data through an Actor-Network Theory (ANT) lens (data interpretation 3).⁷

Table 1.2: Roles Interviewed

Role	Number
Founder/Co-Founder	14
Managing Director/CEO	3
Executive Director - Operations	1
Commercial/Marketing/General Manager	3
Member/Co-worker	2
Director of Corporate Consciousness /Concept Manager	2
<i>Total</i>	<i>25</i>

Some of the key messages⁸ identified from this range of analyses are that the organisations: (1) pursue 'mission and money'; (2) can have an aphorism applied to them of operating to a mode of being "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197);⁹ (3) indicate a positive answer to the primary research question in that they are predominantly sustaincentric in their paradigm; (4) with regard to the secondary research questions they do not perceive of clear boundaries between the inside and the outside of the organisation, have examples of

⁶ See Appendix 2, section A2.6, Table A2.6.

⁷ Data interpretation (0) can be found in Appendix 4, whereas data interpretations (1), (2) and (3) and the discussion thereof comprise chapters five through eight of this report.

⁸ These messages arise from the researcher's interpretation, via the processes of analysis, of the research subjects' commentaries when considered within a wider context of the range of literature read to support this study. In addition a reflection note has been added to appendix 4; section A4.4 which discusses this further. The range of analysis conducted on the data is discussed fully in chapter four. Lastly, please note as previously indicated when discussing the research questions and their normative underpinnings, there were no expectations regarding this research and the commentary that may arise from the research subjects.

⁹ The aphorism 'altruistically selfish and selfishly altruistic' (Maturana & Varela, 1998: 197) is used by Maturana and Varela to explain the paradoxical behaviour that can occur in individual animals which also operate as part of herd. Whereby the animals act selfishly by aiming to ensure their own survival but also act altruistically by aiming to ensure the survival of the herd (a more detailed explanation of the context in which Maturana and Varela (1998) explain this behaviour can be found in Appendix 6, section 6.1). The aphorism is applied to the organisations interviewed as through the research it became apparent that the interviewees view their organisations within a context that is about ensuring the organisations continued operation, but that continued operation is also viewed within a context (for the interviewees) of benefiting wider society and realising, relatively, more environmentally benign outcomes. Further the interviewees highlight how the ongoing operation of their organisations is based on the relevance of their organisations and whether within the context of wider society and the environment, their organisations are helping to realise more sustainable outcomes – for further explanation please see chapter 6.

sufficiency, do not pursue profit maximisation, have generally negative views on quoted status and see money as a means and (5) decentre the human actor and bring forward the non human as an actor.

To expand on each of these five messages. The term 'mission and money' aims to capture how the organisations pursue their mission but also aim to ensure that they are financially viable, a necessary requirement lest the organisations cease to operate. While this could be read as a statement of the obvious, the interviewees highlight that the mission is the central purpose of the organisation and the organisations are merely a tool, where money is a secondary concern yet an important means of helping realise the mission. As such the term 'mission and money' attempts to capture not only the two handedness of the organisations regarding their mission focus and ensuring economic viability but also the primary importance of the mission relative to money.

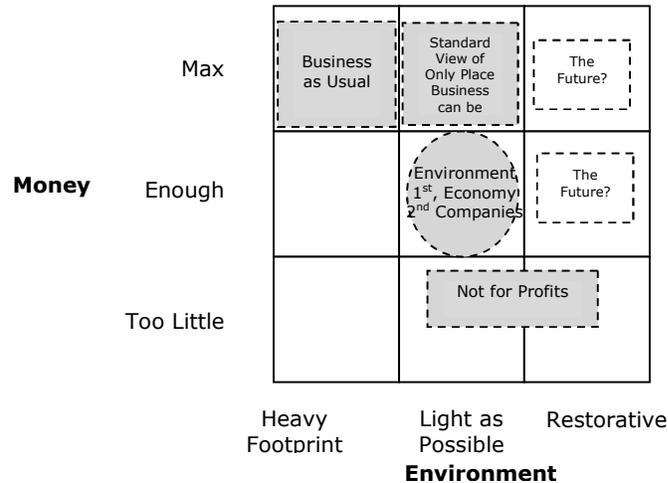
The second message, the aphorism of "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197) attempts to build upon the 'mission and money' message. The aphorism intends to capture how the organisations aim to balance their concerns for their organisations but also their concerns for wider society and the environment. Further the interviewees do not see their organisations as being of primary importance rather they see the organisations purpose as one of relevance within a context of wider societal and environmental issues.¹⁰

The third message that arises from the analysis is that the organisations have a predominantly sustaincentric paradigm. Consequently as per the indications of management scholars, the organisations are likely to support ecologically and socially sustainable development, albeit they are only a support, not a solution. In adding a layer of complexity what was also apparent from the analysis was that interviewees hold views which inform the three paradigms (technocentrism, sustaincentrism and ecocentrism) offered by Gladwin, et al., (1995). Further the 'economic & psychological' assumptions in particular, are balanced between technocentrism (the current paradigm of society (Gladwin, et al., 1995)) and sustaincentrism relative to the more compartmentalised, sustaincentric focused, set of 'ontological & ethical' assumptions. This indicates that the interviewees are more

¹⁰ In this regard the interviewees do not see their organisations as being a unit of survival and they do not have orgocentric views (Egri & Pinfield, 1999).

Alongside the messages above, the study also brings forward a conceptual model (Figure 1.3) and a redefining of a principle behind strategy.¹² It is hoped that these tools and messages coupled with the stated view that the organisations may represent a 'future normal' will be useful in helping both students and managers consider how they might develop strategies that further enable ecologically and socially sustainable development in the future.

Figure 1.3: 3x3 Environment vs Money
(As is operation and the Future?)



Outside of the key messages above, when reading the following chapters, it could be argued that the study has taken a privileged view of the research subjects and their commentary and in so doing painted the contributions of this study in an optimistic or hopeful light. This criticism perhaps has some validity however the focus throughout the thesis is to convey the quotes from the interviewees. Further privileging is perhaps only relevant if a balanced argument is not presented. However, the interviewees continually raise tensions in their commentaries that are brought forward, as demonstrated by, for example the interviewees view that growth is preferable for their organisation but not when taking a macroeconomic and planetary impact perspective. However, notwithstanding this and outside of the requirement to conduct further research, ultimately the organisations researched are unsustainable on a limited planet and in this regard the organisations can only ever be a handbrake or a deceleration on the road towards environmental crises. The organisations are not enabling a change of course and arguably they are not tackling some of the most pressing issues such as promoting a decrease in consumption as

¹² Rather than a principle behind strategy being "insightful understanding of the external environment" (Grant, 1995:11) and thus the creation of separateness, this principle could perhaps be refined for the research sample in this study as 'insightful understanding of all the exchanges (environmental, social and economic) an organisation is involved with'.

opposed to a switch in consumption patterns. That said, as will be read, the interviewees surfacing of tensions and their desire to be pioneers and show there is another way to do business, does leave this researcher with hope that in the future these organisations could adapt and change enough to lead business into more sustainable¹³ practices.

To close this introduction, the structure of the following chapters will be outlined. Chapter Two reviews the management literature and develops the six research questions. After developing the questions, the chapter also discusses how an organisation is defined and what the organisational theory of choice for this study is. Chapter Three discusses how this study relates to Burrell and Morgan's (1979) framework regarding sociological paradigms, the research design and how a pool of potential research subjects was identified and screened. Chapter four profiles the research sample interviewed and the processes of data analysis. Chapter Five outlines the interviewees' commentary within themes such as creating change in society, the relationship between the economy, society and the environment, examples of sufficiency, reluctant leadership and 'love'. Notably, this chapter has minimal researcher discussion surrounding the interviewees' commentary in order to allow the reader to 'hear' the interviewees for themselves (O'Dwyer, 2004). Chapter Six discusses the findings and in so doing draws out messages such as, mission and money and altruistically selfish and selfishly altruistic. As well as this, Chapter Six also discusses the interviewees' notions of their pioneering status, how the interviewees' quotes inform the research questions and how the interviewees' organisations may be useful identifiers for the location or source of action but that the organisations and the individuals in them should not be treated as heroes. This chapter also discusses some of the interviewees' assumptions regarding the ability of their products to create a change in consumer consciousness and closes with the offering of a conceptual model (Figure 1.3). Chapter Seven contains the analysis and results from coding the interview transcripts to the Gladwin, et al., (1995) paradigm scheme, while Chapter Eight outlines the analysis of the interviews using an Actor-Network Theory lens. Finally Chapter Nine summarises the study and draws together the messages, limitations and areas for future research.

¹³ Sustainable as used here is intended as the opposite of an unsustainable activity. Where an unsustainable activity can be defined as follows: "an environmentally unsustainable activity [can be] simply taken to be one which cannot be projected to continue into the future, because of its negative effect either upon the environment or on the human condition of which it is part" (Ekins, 2000:6).

Chapter 2

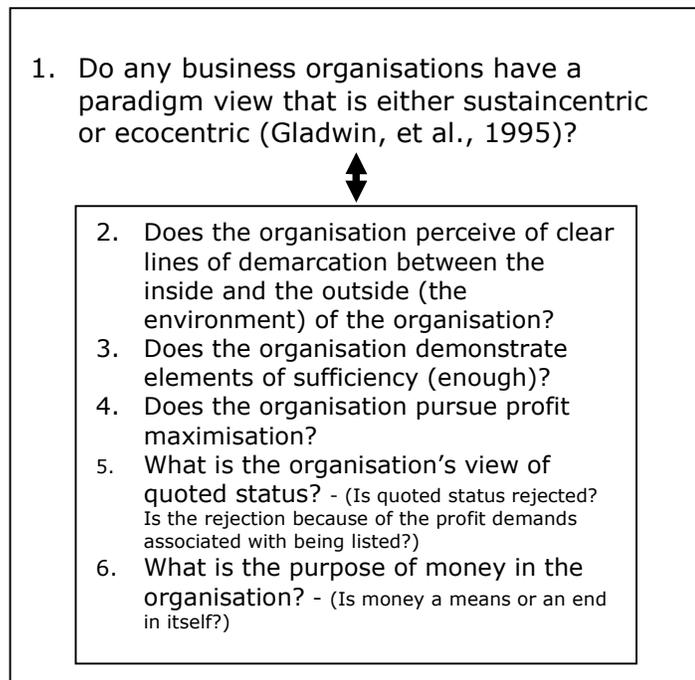
Literature Review

Introduction

At the core of this research is an attempt to understand whether business organisations can be part of the solution to environmental problems. In particular this research intends to identify if there are business organisations which have a paradigm that integrates the environment in some form (an environmental paradigm).¹⁴ This focus is taken as the management literature indicates that business organisations operating to an environmental paradigm is a requirement if businesses are going to support ecologically and socially sustainable development¹⁵ (Colby, 1991; Devereaux

Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna, 1995; Halme, 1996; Kilbourne, Beckmann & Thelen, 2002; Pauchant, 1996; Purser, Park & Montuori, 1995; Purser & Montuori, 1996; Shrivastava, 1995a; Starik & Rands, 1995). To explore paradigms with the interviewees, six research questions are developed (Figure 2.1),¹⁶ this chapter explains the rationale behind all six.

Figure 2.1: Research Questions



¹⁴ The term 'environmental paradigm' is used here to denote a paradigm that goes beyond those that are purely anthropocentric. For example, Egri and Pinfield (1999) discuss two forms of environmental paradigm, reform and radical. Radical is based upon ecological principles such as holism, diversity and limits; thus it moves significantly away from anthropocentrism (which constructs a dualism between humans and nature (Eckersley, 2003), whereas reform modifies anthropocentrism "to include biocentric values to the extent that there is sustainable development" (ibid: 215).

¹⁵ A common definition of sustainable development is "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (The World Commission on Environment and Development: The Brundtland Commission, 1987:8). Critiques are often levied at this definition such as; what is a need, the inability of not yet born generations to talk to present generations and it essentially being a cover for the pursuit of modernity (Bannerjee, 2003). However, it is generally accepted that it is a "big idea of general usefulness" (Gladwin, et al., 1995:976). Further rather than focusing on a specific definition, Brych, et al., (2007) indicate sustainable development can also be viewed as a normative concept, where sustainable development is not "proven or demonstrated, but, rather, asserted" (Brych, et al., 2007:29 citing Dryzek, 1997:123) and hence it is a "vision of the future" (Brych, et al., 2007:29).

¹⁶ Please note as outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what

The chapter begins by briefly discussing the existence of an environmental crisis and then moves on to discuss how management scholars have implicated business organisations in creating this crisis. From there, how a paradigm can be defined is discussed, followed by a review of the management literature on environmental paradigms. Through this discussion the primary research question on whether organisations adhere to a sustaincentric or ecocentric¹⁷ paradigm (Gladwin, et al., 1995) is drawn out. Following this, five other research questions, which build upon the primary research question, are developed (see Figure 2.1). The penultimate section of the chapter focuses on defining an organisation and organisational theory within the context of this research, with the final section summarising the chapter's key messages and conclusions.

2.1 Environmental Crisis and Business Organisations

The worldwide environmental crisis has been discussed extensively by numerous scholars (for example see: Daly, 1996; Ekins, 2000; Gray, et al., 1993; Hawken, et al., 2000; Lovelock, 2006; Weisacker, et al., 1998) and agencies (for example see: The World Wildlife Fund (WWF) Living Planet report, 2006; The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, 2007; the United Nations Millennium Ecosystem Assessment Report, 2005 and the Worldwatch Institute, 2004). To avoid simply repeating the arguments made by these scholars and agencies, the cause of this crisis is identified as humanity's actions, as evidenced by quotes from the IPCC (2007) "since pre-industrial times, increasing emissions of GHGs due to human activities have led to a marked increase in atmospheric GHG concentrations" (ibid:3) and the following quote from the Millennium Ecosystem Assessment Report.

may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

¹⁷ Ecocentric paradigms constitute assumptions on the nature/desired nature of the humans' relationship with the environment. However for succinctness Eckersley (2003) defines ecocentrism as being "based on an ecologically informed philosophy of internal relatedness, according to which all organisms are not simply interrelated but also constituted by those environmental relationships" (ibid:49). Ecocentric paradigms are often viewed as opposite to anthropocentric paradigms. Anthropocentric paradigms can be defined as "the belief that there is a clear and morally relevant dividing line between humankind and the rest of nature, that humankind is the only or principal source of value and meaning in the world, and that nonhuman nature is there for no other purpose but to serve mankind" (ibid:51). Sustaincentrism, as will be discussed later in this chapter, is a paradigm that offers a middle way between the extremes of anthropocentrism and ecocentrism.

“Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history...the changes that have been made to ecosystems have contributed to substantial net gains in human well-being and economic development, but these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people...the degradation of ecosystem services could grow significantly worse during the first half of this century” (Millennium Ecosystem Assessment: MA Findings, 2005:2).

Taking this further, Egri and Pinfield (1999) argue individual actions are unlikely to realize a significant effect upon ameliorating environmental issues unless channeled through some collective effort. Egri and Pinfield (1999) state that this collective effort requires the “agency of organizations”¹⁸ (ibid:225), especially because, as Egri and Pinfield (1999) argue, and as per the geographical context of this research, “we live in an organizational world in which organizations are the means through which interests are realized” (ibid: 225). Thus a response to the environmental crisis needs to come from not only individuals but also as Gray, et al., (1993) argue it needs to come from “organisations in general and business in particular” (ibid:9).¹⁹ The requirement for a response by businesses is not unexpected given that many commentators identify business organisations as being not only, at least in part, responsible for the crisis (for example see: Bakan, 2004; Deegan & Shelly, 2006; Devereaux Jennings & Zandbergen, 1995; Gladwin, et al., 1995; Shrivastava, 1995a,b & c; Sethi, 1995) but also key actors in enabling “any moves towards solving many of the social and environmental problems confronting people throughout the world” (Deegan & Shelly, 2006:2).²⁰

¹⁸ In this context, Egri and Pinfield (1999) define organisations as “special purpose social collectives whose activities are informed by the interests of organisational participants” (ibid:225). Defining an organisation and the organisational theory most applicable in the context of this research beyond this relatively broad definition will be conducted later in this chapter.

¹⁹ Although business organisations are the focus of this research, a response to the environmental crisis has been called for in both individuals and how they consume (for example see: Cooper, 2005; Crompton, 2008; Crompton & Thorgersen, 2009; Frame & Newton, 2007; Haake & Jolviet, 2001; Jackson, 2003, 2005; Jackson, et al., 2004; Sanne, 2002) as well as to the wider economic system (for example see: Albert, 2003; Baumgartner, 2002; Constanza & Daly, 1992;Daly, 1992, 1996; Jackson, 2004, 2009; Lozada, 1995; Schumacher, 2009).

²⁰ In support of business organisations being part of the solution to the environmental crisis see also: Egri & Pinfield, 1999; Gladwin, et al., 1995, Marcus & Fremeth, 2009; Moneva & Llana, 2000; Porritt, 2006; Porter, 1991; Porter & Esty, 1998; Porter & Kramer, 2006; Porter & Reinhart, 2007; Porter & Van der Linde, 1995a,b; Shrivastava, 1995a,b; Siegel, 2009; Stead and Stead, 1992.

2.2 Paradigms & the Primary Research Question

2.2.1 Defining Paradigms and Why They Matter

The term 'paradigm' has been said to derive from the work of Kuhn (1996) on the nature of scientific change (Abercrombie, et al., 2000).²¹ Kuhn (1996) argues that a paradigm is closely related to the term 'normal science.' Where "normal science" means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice" (Kuhn, 1996:10). Within social science, Burrell and Morgan's (1979) text on sociological paradigms states that the use of the term 'paradigm' is "intended to emphasise the commonality of perspective which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problematic" (ibid:23). Further a paradigm may not imply complete unity of thought between actors but rather an "underlying unity in terms of its basic and often 'taken for granted' assumptions" (Burrell & Morgan, 1979:23).

Turning to the management literature, a lack of complete unity regarding the meaning of the term paradigm is evident. For example, Hanna (1995) uses a Webster dictionary to define a paradigm as "an example serving as a model; pattern" (Hanna, 1995:797 citing Webster College Dictionary, 1991). While Kilbourne, et al., (2002) draw upon Milbrath's (1984) definition of the dominant social paradigm²² (DSP) as "...the values, metaphysical beliefs, institutions, habits, etc that collectively provide social lenses through which individuals and groups interpret their social world" (ibid: 7). Other management scholars do not define the specific term

²¹ Abercrombie, et al., (2000) refer to the second edition of Kuhn's book published in 1970, the first edition being published in 1962. The reference to Kuhn in this text refers to the 3rd edition of Kuhn's book published in 1996.

²² The term 'dominant social paradigm' is generally ascribed to Pirages and Ehrlich (1974) (for example see: Dunlap & Van Liere, 2008; Kilbourne, et al., 2002; Byrch, et al., 2007). Pirages and Ehrlich (1974) have defined a DSP as a "world view through which individuals or, collectively, a society interpret the meaning of the external world...[and] ...a mental image of social reality that guides expectations in a society" (Dunlap & Van Liere, 2008:19 citing Pirages & Ehrlich, 1974:43-44). Likewise Kilbourne, et al., (2002) refine the notion of dominant social paradigm by outlining that a "paradigm is dominant, not because it is held by the majority of people in a society, but because it is held by dominant groups who use it to legitimise and justify prevailing institutions" (ibid:194).

(paradigm) but use broad descriptors such as; world view, meta narrative, core beliefs, shared values and shared assumptions that are held by a particular group of actors (for example see: Colby, 1991; Cummings, 2005; Egri & Pinfield, 1999; Gopalkrishnan, 1999; Gladwin, et al., 1995; Halme, 1996; Shrivastava, 1995a). To reflect this diversity a paradigm will be defined, for the purposes of this research, as “a world view or frame of meaning which is composed of the shared values, core beliefs and assumptions of the members of a certain group” (Halme, 1996:97). Further, within the context of this research the term ‘group’ refers to an organisation.

In responding to the environmental crisis, the paradigm of an organisation is considered important because “the way we construct, interpret, discuss and analyse environmental problems has all kinds of consequences” (Byrch, et al., 2007:46 citing Dryzek, 1997:9) that are believed to impact environmental stances and responses to environmental issues by organisations. Numerous scholars (management or otherwise) support the view that paradigms influence the behaviour of organisations (for example see: Andersson & Bateman, 2000; Capra, 2003; Clegg, et al., 2004; Eckersley, 2003; Gladwin, et al., 1997; Grout & Kajzer, 2003; Johnson, 1996; Keeley, 1983; Morgan, 2006). In the management literature it is argued that the ‘dominant social paradigm’ and or ‘traditional management paradigm’ (the two terms appear to be used interchangeably in the management literature) is anthropocentric.²³ Further the beliefs and assumptions therein contribute to the degradation of the natural environment because anthropocentrism inserts a dividing line between humankind and the rest of nature (Eckersley, 2003). Consequently the argument is made that there is a requirement for organisations to embrace an environmental paradigm which removes the dividing line between humankind and nature (for example see: Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna, 1995; Halme, 1996; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser &

²³ Appendix 2 presents an overview of what various scholars view as the anthropocentric beliefs and assumptions of traditional management. Anthropocentric beliefs and assumptions are given various collective labels depending on the scholar. Hence Dunlap and Van Liere (2008) and Egri and Pinfield (1999) use the label ‘Dominant Social Paradigm’, while Shrivastava (1995a) uses the label ‘traditional management paradigm’, Gladwin, et al., (1995) use the label ‘technocentrism’ and Colby (1991) and Devereaux Jennings and Zandbergen (1995) use the label ‘frontier economics’. By way of a summary Eckersley (2003) defines anthropocentrism as “the belief that there is a clear and morally relevant dividing line between humankind and the rest of nature, that humankind is the only or principal source of value and meaning in the world, and that nonhuman nature is there for no other purpose but to serve mankind” (ibid:51).

Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a) and that this will enable a change in the organisation's behaviour allowing it to enable ecologically and socially sustainable development.

That a paradigm influences likely behaviour has met with mixed empirical results, particularly at the level of the individual (as opposed to at an organisational level). Dunlap and Van Liere's (2008)²⁴ survey of individuals indicates that there is a link between individuals subscribing to a particular paradigm and their behaviour. Similarly a Kilbourne, et al., (2002) study also indicates that an individual's paradigm impacts their behavioural intentions with "increases in environmental concern [having] a positive effect on behavioural intentions" (ibid:202). Conversely a 2008 study involving Kilbourne finds that individuals' decreased adherence to the DSP results in an increased perception that change is necessary to ameliorate environmental degradation but not a "willingness to change one's own behaviour" (Kilbourne & Carlson, 2008:106)²⁵. Alternatively when considering organisations, Andersson and Bateman²⁶ (2000) and Halme (1996) highlight that there is a link between the environmental behaviour of organisations and whether an organisation has an environmental paradigm. Similarly Egri and Herman's (2000) study finds that environmental product and service organisations are informed by an environmental paradigm.²⁷ Although the paucity of empirical studies indicates that there is the potential for more research on the link between an organisation's paradigm and its behaviour. In the context of this study, because numerous management scholars²⁸ are making the call for the embracing of an environmental paradigm by organisations to enable them to respond to the environmental crisis and realise more

²⁴ The Dunlap and Van Liere (2008) paper is a reprint of their original 1978 paper, which reported on a survey of individuals conducted in 1976.

²⁵ Linking between individual's behaviours and organisations' behaviours is a 2006 study by Shafer. This study on students found that an individual's increased adherence to an environmental paradigm results in an increased expectation of corporate environmental accountability. Similarly an individual's decreased adherence to an environmental paradigm and increased adherence to the DSP (economic individualism, unlimited economic growth, etc) results in the individual having lower expectations of corporate environmental accountability.

²⁶ The study by Andersson and Bateman (2000) involved 22 semi structured interviews and 132 questionnaire responses with/from environmental champions in US business organisations. The Halme (1996) study involved an in depth case study of two Finnish paper facilities. Neither study systematically investigated whether an organisation was, for example, ecocentric or adhered to a particular paradigm scheme. Rather they discussed an organisational paradigm being environmentally strong in general terms thus bringing an element of vagueness into their work.

²⁷ The Egri and Herman (2000) study was focused on the leaders of the organisations they interviewed. As such to make the claim that the organisations operated to an environmental paradigm, Egri and Herman (2000) posited "a leader's behaviours are influential...at the organisational level" (ibid: 597).

²⁸ For example see: Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna, 1995; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995 and Shrivastava, 1995a.

sustainable outcomes and the findings from Andersson and Bateman (2000), Egri and Herman (2000) and Halme (1996) highlight that there is a link between organisational paradigm and its behaviour, it can be asserted that an organisation's paradigm is likely to impact upon its behaviour.

2.2.2 Range of Paradigms Offered in the Literature

Environmental paradigm discussions in the management literature typically build from a discussion of how organisations are responsible for environmental degradation, as a result of them operating to an anthropocentric paradigm. Further, the case is also made that organisational scholars have been complicit in promoting this view because "modern management theory is constricted by a fractured epistemology, which separates humanity from nature [and] reintegration is necessary if organisational science is to support ecologically and socially sustainable development" (Gladwin, et al., 1995:874).²⁹ From this base, a discussion of environmental paradigms is typically presented either as dichotomy between two poles of anthropocentrism and ecocentrism³⁰ (for example see: Gopalkrishnan, 1999; Shrivastava, 1995a) or as a continuum between and inclusive of these two poles (for example see: Colby, 1991; Egri & Pinfield, 1999; Gladwin, et al., 1995; Purser, et al., 1995; Devereaux Jennings & Zandbergen, 1995). Where anthropocentrism and ecocentrism³¹ are at the extremes and paradigms in between are labelled, for example, either reform environmentalism (Egri & Pinfield, 1999), environmental management (Purser, et al., 1995) or sustaincentrism (Gladwin, et al., 1995).

The two poles of anthropocentrism and ecocentrism have been likened to very weak and very strong sustainability (Byrch, et al., 2007).³² While Egri and Pinfield (1999)

²⁹ For examples of similar arguments see: Egri and Pinfield (1999), Purser, et al., (1995) and Shrivastava (1995a).

³⁰ As presented in Appendix 2, ecocentric paradigms constitute assumptions on the nature/desired nature of the humans' relationship with the environment. However for succinctness Eckersley (2003) defines ecocentrism as being "based on an ecologically informed philosophy of internal relatedness, according to which all organisms are not simply interrelated but also constituted by those environmental relationships" (ibid:49).

³¹ Anthropocentrism is also termed technocentrism, traditional management, the dominant social paradigm and even frontier economics (Colby, 1991) in the literature. Similarly ecocentrism is also referred to as deep ecology (Colby, 1991; Devereaux Jennings & Zandbergen, 1995), radical environmentalism (Egri & Pinfield, 1999) and the ecocentric responsibility paradigm (Purser, et al., 1995).

³² Where Byrch et al; (2007) outline that very strong sustainability advocates seeing the economy as operating within society, societal activity being constrained by the physical limits of the earth and there being no substitutability between environmental resources and human capital. While at the other extreme, very weak sustainability is defined by a view where there is infinite substitutability between

argue that a common thread running through the spectrum of paradigms from anthropocentrism to ecocentrism is a conceptualisation of self-interest. At the anthropocentric end of the spectrum, self-interest can be conceptualised as “short term and totally preoccupied with the physical survival of the individual” (Egri & Pinfield, 1999:224). In contrast wider conceptions of self interest based on family and progeny or some notion of collectivity based on tribes or clans, to the widest conception of self interest based on the species and other forms of life are likened to ecocentrism.³³

At the core of this research is a paradigm scheme offered by Gladwin, et al., (1995) of technocentrism (thesis), ecocentrism (antithesis) and sustaincentrism (synthesis): where technocentrism is one pole, and the current paradigm of society,³⁴ with the other pole being ecocentrism

Figure 2.2: Overview of Technocentrism, Sustaincentrism and Ecocentrism (Gladwin, et al., 1995)

(1) Technocentrism is built around precepts such as: the Earth is an inert machine to be exploited; humans are disassociated from the earth; and that nature has no inherent value other than that perceived by humans. This paradigm further assumes that the Earth has no limits, that there are no irresolvable environmental issues, and that humanity’s ingenuity can solve any problems. This paradigm also assumes that: profit maximisation and growth can continue ad infinitum; all that matters to humanity are material possessions; humans only operate as economic beings; and that the future should be discounted, as the present is what matters most.

(2) Sustaincentrism takes a position that is between technocentrism and ecocentrism. This position views the Earth as a life-support system that is to be treated as a home rather than as something dead or alive; it believes that humanity is interdependent with the Earth and that nature has inherent value. It perceives that the Earth’s limits are being reached; that the environmental problems will take many decades to resolve; and that humans can only replace some, not all natural processes. This paradigm favours: quality of human life as being the primary measure of success; that humanity should move beyond materialism; and that the role of growth is not unquestionably good but should be subject to question; and that the future should only be discounted tentatively.

(3) Ecocentrism takes a position that is at the opposite end of the spectrum to technocentrism. This position assumes that: the Earth is alive and is the key to the web of life; that nature has inherent value; and that humans are an intrinsic part of nature. This paradigm also assumes that: the planet’s limits are already being exceeded; that the environmental problems are potentially catastrophic; and that humanity needs to work with nature to restore a balance. This paradigm favours ecological integrity as the primary measure of performance. It also believes that: humanity should not be materialistic and should recognise its place as just another member of the animal kingdom; that growth should be eliminated; and that the future should never be discounted.

environmental resources and human capital and society, the environment and the economy compete for these resources, with a key priority being maintenance of the economy.

³³ Similarly to Egri and Pinfield (1999), Morgan (2006) describes how organisations can narrow their interests to themselves and relate their outside environment to only themselves (i.e. the organisations are orgocentric). In this case organisations will “implicitly treat the physical and social environment as a kind of external dumping ground, setting the basis for long-run problems that challenge their future viability” (ibid: 249). Morgan (2006) goes on to discuss in a manner similar to Egri and Pinfield’s (1999) expansion of the concept of self interest, organisations need to develop a systemic wisdom where they understand that “in the long run, survival can only be with, never survival against” (ibid:250).

³⁴ Although this maybe a strong assertion by Gladwin, et al., (1995), given they are not alone in making such a claim it is an assertion that will be accepted for this study.

and sustaincentrism being between these two. An overview of these three paradigms is provided in Figure 2.2 with a more detailed exposition provided in Appendix 2. By cross reference to Appendix 2, it can be seen that the three overviews of (1) technocentrism, (2) sustaincentrism and (3) ecocentrism are parallel to the constituents of the paradigms of other management scholars (for example: Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gopalkrishnan, 1999; Purser, et al., 1995; Shrivastava, 1995a) label as either (1) dominant social paradigm/anthropocentrism/frontier economics/traditional management, (2) reform environmentalism/environmental management/reformist paradigms and (3) deep ecology/ecocentric management/radical environmentalism/ecocentric responsibility paradigm.

2.2.3 Paradigms are 'Strawmen'

In building the case for the embracing of a new paradigm by contrasting anthropocentrism (technocentrism) and ecocentrism, Egri and Pinfield (1999) highlight that management scholars are essentially positioning anthropocentrism as a "straw man" (ibid:217). This is because Egri and Pinfield (1999) indicate that the beliefs and assumptions inherent in anthropocentrism are in their pure form 'abstract', particularly those pertaining to economic assumptions such as laissez faire economics and substitutability. As "in reality, rational free market principles are continuously compromised and adjusted to accommodate subjective irrationality...limits to substitution, resource depletion costs...and so forth" (Egri & Pinfield, 1999:217). Consequently Egri and Pinfield (1999) make the case that, given the contradictions between theory and practice, anthropocentrism (or in their terms the DSP) can be "most accurately regarded as an ideological perspective which serves as a conceptual endpoint against which other environmentalist perspectives and actions can be measured" (ibid:217). This 'strawman' concept also applies, to a certain extent, to ecocentrism. As although ecocentrism is viewed as having philosophical coherence (Egri & Pinfield, 1999; Gladwin, et al., 1995; Pauchant, 1996) the difficulty often cited with it is one of practicality. This is because given its "utopian, abstract, radical nature" (Egri & Pinfield, 1999:219) it is viewed as being unlikely to be accepted, either by mainstream society or more specifically managers in organisations (Egri & Pinfield, 1999; Gladwin, et al., 1995; Hanna, 1995; Kallio &

Nordberg, 2006; Meima, 1996; Purser & Montuori, 1996),³⁵ not least, because it challenges "not only the field of strategic management ...but most of Western philosophical and religious traditions" (Hanna, 1995:797 citing Pauchant & Fortier, 1990). Thus ecocentrism is a paradigm argued as being confined to having a "marginal effect" (Egri & Pinfield, 1999:219)³⁶ on mainstream society.

Given the two poles of anthropocentrism and ecocentrism are effectively "straw men", the offering of a paradigm between the two poles, such as sustaincentrism³⁷ by management scholars (for example see: Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Purser, et al., 1995) appears pragmatic but also to a certain degree un-ambitious, as evidenced by critique and support in the literature. Paradigms such as sustaincentrism are criticised on several counts: (1) as being ambiguous and incoherent (Egri & Pinfield, 1999, Gladwin, et al., 1995) because they try to bridge between the two poles of anthropocentrism and ecocentrism; (2) these paradigms incorporate the concept of sustainable development; a concept that is seen as not being possible because it is argued sustainable development attempts to ensure environmental sustainability and continued economic growth on a limited planet (for example see: Bannerjee, 2003; Egri & Pinfield, 1999; Gopalkrishnan, 1999; Purser, et al., 1995); (3) they are seen as being too incremental (Colby, 1991) and not radical enough, because they are deemed to be acceptable to "existing legal, economic and financial systems [which] are part of the problem" (Purser & Montuori, 1996:612). Consequently because of these criticisms, it is argued that a paradigm such as sustaincentrism fails to get to the root of ecological problems (Pursuer & Montuori, 1996) and ultimately creates a false promise that "we can continue to have our economic cake and eat it, too, without undergoing fundamental changes in lifestyle or thinking" (Purser & Montuori, 1996:612).

Conversely paradigms such as sustaincentrism are supported because they are viewed as "a more optimistic pragmatic approach" (Egri & Pinfield, 1999:221) to

³⁵ Egri and Pinfield (1999) highlight that, in their opinion, ecocentrism has been adopted by some parts of society, for example; The Green Party, Friends of the Earth and the Rainforest Action Network but not business organisations.

³⁶ For further support see: Devereaux Jennings and Zandbergen (1995), Gladwin, et al., (1995) and Purser, et al., (1995).

³⁷ As mentioned earlier sustaincentrism is Gladwin, et al's, (1995) name for their paradigm between the poles of anthropocentrism and ecocentrism. As Gladwin et al's (1995) paradigm scheme is investigated during this study this name is used for consistency.

resolving environmental issues. Where the pragmatism is realised because these paradigms: (1) are more acceptable to industrial decision makers relative to a paradigm such as ecocentrism, where ecocentrism is likely to run "the risk of being written off as more irrelevant rhetoric coming from the ivory temples of academe" (Hanna, 1995:798); (2) enable the integration of individuals, business and government within it and thus all the diverse aspects of society can be mobilised (Egri & Pinfield 1999, Johnson 1996); and (3) they recognise the evolutionary status of humans and their intellect relative to other biota and thus it "anchors environmental care in a moral imperative by which humans, by virtue of their evolutionary complexity, have both more rights than other species, but they also have more steward-ship responsibilities" (Gladwin, et al., 1996:912).

Although a paradigm such as sustaincentrism can be critiqued as not being radical and too incremental it is important to note (as Egri and Pinfield (1999) and Egri and Herman (2000) highlight) this critique is dependent on perspective. For example, from the anthropocentric pole a paradigm such as sustaincentrism can be seen as progressive. Similarly, while sustaincentrism can be viewed as being incremental, this does not mean that it cannot "result in a fundamental shift in the human-nature relationship" (Egri & Pinfield, 1999:220) by "multiple incremental initiatives" (ibid: 220) of all of society's constituents. In this manner, a paradigm such as sustaincentrism could be viewed as a gateway through to realising ecocentrism. Brych, et al., (2007) support this gateway concept as in their study they highlight that some of the individuals they researched held a paradigm view between technocentrism and towards ecocentrism. Further they argued that these views "hold some promise" (ibid: 45) towards realising ecologically and socially sustainable development, albeit that this promise needs to be followed through into action rather than being merely rhetorical. Consequently, as phrased neatly by Johnson (1996) paradigms such as sustaincentrism maybe a "portal into ecological awareness" (ibid: 609), although no studies appear to have 'proven' this is the case.

2.2.4 Management Literature on Paradigms & the Primary Research Question

The management literature's discussion of organisations embracing environmental paradigms does not appear to be matched by research testing organisations adherence to a particular scheme and or paradigm. Halme's (1996) case study of two Finnish companies discusses how the paradigm in the organisations studied shifted from what Halme (1996) terms 'traditional management' to 'environment related management'. Halme (1996) argues that these paradigms are similar to the 'frontier economics' and 'resource management' paradigms offered by Colby (1991). However, Halme (1996) offers no clear explanation supporting this claim by, for example, showing how Colby's (1991) original framework maps to the data gathered. Similarly, Andersson and Bateman's (2000) survey of individuals identified as environmental champions from a number of industries, discusses how championing initiatives are more successful in organisations where environmental paradigms appear to be strong, but again no clear explanation of which environmental paradigm is being adhered to is provided. Similarly, Brych, et al's., (2007) study of 21 thought leaders discusses "very generally" (ibid: 44) how the cognitive maps of the individuals they researched can be related to a paradigm scheme such as technocentrism, sustaincentrism and ecocentrism (Gladwin, et al., 1995). However, again no clear explanation of how the cognitive maps fitted to the paradigm scheme is offered.

This lack of clear explanation is understandable given: (1) only the Halme (1996) and Brych, et al., (2007) studies were specifically focused on world views or paradigms; and (2) as outlined previously, the paradigms offered in the literature are effectively strawmen and "schematic, not photorealistic" (Gladwin, et al., 1995:881). However, that the studies discuss paradigm adherence in general terms and do not appear to ask questions directly related to specific paradigm schemes does provide a gap in the research field. Further, given that only two studies, Halme (1996) and Brych, et al., (2007), have been found that utilise or mention a particular paradigm scheme and these studies are relatively narrow in their focus; as Halme (1996) conducts a case study of two organisations and Brych et al., (2007) interview thought leaders but not business leaders, the gap in the research field is reinforced. Further it is a gap that has particular pertinence given the claims of numerous

management scholars that environmental paradigms need to be embraced to enable ecologically and socially sustainable development.

Given the range of schemes and the similarities between them, one of a number could be chosen for a paradigm survey (for examples of schemes see: Egri & Pinfield, 1999; Purser, et al., 1995 or Devereaux Jennings & Zandbergen, 1995). This study has put at its core the scheme offered by Gladwin, et al., (1995). The rationale for focusing on the Gladwin, et al., (1995) scheme is twofold. First it is comprehensive, outlining 30 assumptions for each of its constituent paradigms (see Appendix 2, Table A2.6). Second, Gladwin, et al., (1995) make a clear argument for why sustaincentrism should be adopted; albeit Gladwin, et al., (1995) construct their own rationale for adoption by testing the paradigm against their metrics of inclusiveness, connectivity, equity, prudence and security and thus Gladwin, et al's (1995) rationale for why sustaincentrism should be adopted is perhaps tautological, given they constructed the paradigm scheme and the test.

In summary the paucity of research on organisations adherence to environmental paradigms and particular paradigm schemes, leads to the first and primary research question for this study;

Q1: Do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)?³⁸

While this question may appear to be relatively specific, it is unlikely that any organisation will subscribe to one paradigm in its entirety, or that organisations will be consistent in their points of adherence to a particular paradigm. This is because, as discussed previously, paradigms are effectively 'strawmen'. Further Egri and Pinfield (1999) argue that paradigms such as sustaincentrism are likely to be in a state of "flux and change" (ibid:217). Similarly, Gladwin, et al., (1995) make it clear their paradigm scheme does not consist of paradigms which are "closed or monolithic" (ibid:881). However, while this may result in a lack of specificity regarding adherence to a particular paradigm, Egri and Herman (2000) also make the argument that a state of flux is a healthy sign as it allows for a plurality of views

³⁸ Clearly the question could include anthropocentrism as well, especially given the 'straw man' nature of paradigms. However given the context of this research, it is appropriate to ask about views that would appear to enable more ecologically and socially sustainable outcomes.

and results in there being less chance of “groupthink” (ibid:594). Nevertheless, within the context of this research, the identification of organisations that are predominantly sustaincentric or ecocentric would be helpful in supporting the assertions of numerous scholars regarding the necessary embrace of environmental paradigms to allow management studies to better enable ecologically and socially sustainable development.

The relative paucity of research on business organisations and their adherence to a particular scheme of paradigms brings forward an element of risk in researching the above question. Indeed, the lack of studies directly researching whether organisations fit to ecocentrism or sustaincentrism might indicate that the question is not researchable and thus help to explain why Andersson and Bateman (2000), Brych, et al., (2007), Egri and Herman (2000) and Halme (1996) framed their discussions of paradigms in general terms. This aspect of risk, when coupled to the exploratory nature of this study, resulted in five other questions being developed that were aimed at exploring tensions in how individuals in an organisation perceive the relationship between the organisation and the wider environment. Moreover and without wishing to divert this literature review into a full discussion of methodology, the exploratory nature of this study resulted in a decision being made that semi-structured interviews with target organisations would be the method of choice (a decision that will be explained in chapter three). In light of this decision, and cognisant of the dynamics of a semi-structured interview, it was deemed inappropriate to interview individuals and explore the thirty constituent assumptions of either sustaincentrism or ecocentrism³⁹ as offered by Gladwin, et al., (1995) and thus five other research questions were developed. These five questions aim to explore specific issues that will not only test an interviewee’s response from a number of perspectives, but will also allow the exploration of an organisation’s adherence to a particular paradigm.

³⁹ See Appendix 2, Table A2.6 for an overview of the thirty constituent assumptions of each paradigm (technocentrism, sustaincentrism and ecocentrism) as offered by Gladwin, et al., (1995).

2.3 Supporting Research Questions

2.3.1 Second Research Question

Anthropocentrism has within it a "belief that there is a clear and morally relevant dividing line between humankind and the rest of nature, that humankind is the only or principal source of value and meaning in the world, and that nonhuman nature is there for no other purpose but to serve mankind" (Eckersley, 2003:51). Purser, et al., (1995) suggest that an anthropocentric bias, therefore, results in organisations seeing the natural environment as "something outside and completely unrelated to the observer, except in a very narrow utilitarian sense" (ibid: 1064) where the organisation is "posited as standing outside (and above) nature" (ibid: 1064).⁴⁰ If an organisation is not anthropocentric and embraces a paradigm such as sustaincentrism or ecocentrism then it will to some degree subscribe to one of the tenets of ecocentrism that "the world is an intrinsically dynamic, interconnected web of relations in which there are no absolutely discrete entities and no absolute dividing lines" (Eckersley, 2003:49). The degree of adherence to this view is likely to be tempered by the arguments put forward by for example; Buchholz (2004), Egri and Pinfield (1999) and Gladwin, et al., (1995) that humans maybe equivalents from a material perspective (and hence there is no material dividing line) but there is an intelligence dividing line, with this intelligence dividing line requiring humanity to have more responsibilities relative to other biota. Consequently an organisation that is sustaincentric or ecocentric is likely to take a view that "nature cannot be dehumanised nor can humans be denaturalised" (Buchholz, 2004:131). Similarly, if it is accepted that an organisation's "inputs, throughputs, and outputs have systemic interconnections among themselves and with environmental, economic, social and organisational variables" (Shrivastava, 1995c:942), then an organisation that is ecocentric or sustaincentric is not likely to see clear lines of demarcation or boundaries between itself and the wider environment. Further the organisation may even approach King's (1995) view that organisations of the future will resemble estuaries where they have no boundaries and "the organisation will mix with the environment, other organisations, and society" (King, 1995:979). Similarly "a person may not be able to distinguish when he or she is inside or outside an organization or

⁴⁰ Although Purser, et al., (1995) have been used to illustrate the argument, for further support see: Colby (1991), Devereaux Jennings and Zandbergen (1995), Egri and Herman (2000), Egri and Pinfield (1999), Gladwin, et al., (1995), Halme (1996), Gopalkrishnan (1999) and Shrivastava (1995a).

not, and it may not be easy to tell when an individual is working for the organization, acting as a stakeholder, or engaged in institutional activities" (King, 1995:979). The notion of boundaries between humans and nature or organisations and their wider environment is an essential component of the paradigm debate, particularly when viewed through the poles of ecocentrism and anthropocentrism. Hence exploring this tension of whether a boundary between the inside and outside of the organisation is perceived or not leads to the second research question.

Q2: Does the organisation perceive of clear lines of demarcation between the inside and the outside (the environment) of the organisation?⁴¹

2.3.2 Research Questions 3, 4, 5 and 6

The remaining four questions also arise from the paradigm debate. However, they are more closely related to each other and aim to a certain extent to be questions that test interviewees' responses from a number of perspectives. In this regard the remaining questions draw from the same narrative regarding the possibility of continual growth on a limited planet.

When the management literature draws from anthropocentrism to frame its arguments, a key argument is that anthropocentrism has, within it, beliefs and assumptions that growth can continue ad infinitum and that when a resource is exhausted, substitutes will become available. Further it is claimed that these beliefs and assumptions are what a majority of business organisations subscribe to (for example see: Andersson & Bateman, 2000; Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin et al., 1995; Halme, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a). The claim that most business organisations subscribe to this view is perhaps not unsurprising if as Shrivastava (1995c) argues "objectives and strategies were conceptualised in terms of growth, profits and wealth" (ibid: 957). Conversely, a key argument within ecocentrism is that because of the biophysical constraints of the earth, ultimately a steady state economy will have to be realised where growth in

⁴¹ Although this question can be read as a closed question where the answer to it is either 'yes' or 'no', the test of this question is to explore if any boundaries are drawn, why does the interviewee place a boundary in that particular context; an element that is explored within the semi-structured interviews.

material throughputs is controlled or limited (for example see: Andersson & Bateman, 2000; Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Halme, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a).⁴² This tension between anthropocentrism and ecocentrism regarding growth implies that an organisation that is either ecocentric or sustaincentric will not believe in unlimited growth and thus it will practice some sufficiency in its operation. This conclusion leads to the third research question;

Q3: Does the organisation demonstrate elements of sufficiency (enough)?⁴³

A number of scholars have made a call for sufficiency (for example see: Dyllick & Hockerts, 2002; Galbraith, 1999; Gladwin, et al., 1995; Lamberton, 2005; Sachs, 1999; Schumacher, 1993; Tilley & Young, 2006). Sachs (1999) outlines that sufficiency is the other side of the pursuit of efficiency⁴⁴ where;

“efficiency without sufficiency is counterproductive – the latter has to define the boundaries of the former. A society in balance with nature...can be approximated only through a twin-track approach: intelligent rationalization of means and prudent moderation of ends...an efficiency revolution remains without direction if it is not accompanied by a sufficiency revolution” (ibid:88).

Beyond this Sachs (1999) does not discuss sufficiency extensively, although Dyllick and Hockerts (2002) discuss sufficiency “as an issue of individual choice rather than a single firm’s responsibility” (ibid: 137). Thus they frame the concept of sufficiency within the realm of customers as opposed to organisations and their decisions and actions. Tilley and Young (2006) continue the theme of sufficiency being an individual customer’s concern but develop it further to include the indirect

⁴² More widely a call for limiting growth and or the realisation of a steady state economy because of ecological limits is made by numerous scholars, for example see: Constanza and Daly (1992), Daly (1996), Jackson (2009), Korten (1999), Meadows, et al., (2005), Stead and Stead (1992), Woodward and Simms (2006).

⁴³ Sufficiency can be defined as “a sufficient quantity (of something); enough” (Oxford Dictionary, 2005:3099). This question refers to the actions of the organisation as opposed to an individual consumer’s decisions regarding sufficiency. Further in this context sufficiency is being discussed in its broadest sense as opposed to focusing on a particular unit such as profit.

⁴⁴ In this context, although not explicit in the text it is likely that Sachs (1999) is discussing the concept of eco-efficiency. Eco-efficiency can be defined as “producing and delivering goods while reducing ecological impacts and resource intensity to a level compatible with Earth’s carrying capacity” (Starik and Marcus, 2000:542).

responsibility of an organisation. They state that sufficiency is a "social centred principle" (Tilley & Young, 2006: 409), that is, it is "primarily a criterion for sustainable consumerism, the business world has an indirect responsibility. Marketing and corporate advertisements have an increasing influence on consumer trends and life-style developments, thus rather than fuelling the demand for more unsustainable products, firms might try to channel demand towards less problematic areas" (Tilley & Young, 2006:410 citing Hockerts, 2003:30). Hence in this context, sufficiency is framed by the marketing activities of a company towards its customers. This marketing framing is limiting relative to research question three, which is developed within a broader theme of not pursuing growth ad infinitum, and thus aims to include all aspects of an organisation's operations and units of measurement not just its marketing activities. Further Tilley and Young's (2006) suggestion that businesses have an indirect responsibility is another limit that the research question aims to avoid being constrained by. This is because companies have a direct responsibility for the pursuit of excess and or continual growth for those operations that are wholly within their control, for example organisations can limit their supply of a particular product or service.

Notwithstanding this, if an interviewee offers examples of sufficiency observers might describe these examples as merely being satisficing. Satisficing arises from bounded rationality, where humans beings "satisfice because they do not have the intellectual capacity to maximise" (Shafritz & Ott, 1992:99). Thus because of the cognitive limits of human beings to consider all strategies and outcomes our ability to maximise is constrained (Godfrey, 2005). The intention of research question three is to understand whether organisations are explicit and deliberate in their application of sufficiency, rather than a satisficing outcome being a limitation of human cognitive abilities. Thus satisfaction is achieved by realising a certain deliberate threshold (sufficiency) as opposed to an organisation continually striving for maximisation even though cognitive limits mean that maximisation is an illusory quest. In this regard, the sufficiency research question is closely related to the concept of 'strategic satisficing' offered by Parrish (2007). Parrish (2007) highlights that in practice strategic satisficing "means strategically identifying levels of both quantitative and qualitative outcomes that are deemed satisfactory" (ibid:12) with this being used as a "tool for balancing tradeoffs" (ibid:12) where one goal (for example financial) is not elevated above others (such as environmental or social goals). Given the similarity

between Parrish's (2007) concept of strategic satisficing and sufficiency, it is valid to ask why the wording of the question three is not changed from 'sufficiency' to 'strategic satisficing'. However, rather than change the wording of the research question the term 'sufficiency' is used and is intentional for two reasons. First the word 'sufficiency' is part of the common, everyday vernacular and as such requires little explanation relative to the term 'strategic satisficing'. Second, if the term 'strategic satisficing' is used and explained in an interview context it is likely to influence interviewee responses towards a response that mirrors the explanation, again an unwelcome outcome for exploratory research.

A counter to the concept of sufficiency is that of intending to maximise outcomes, where a focus on financial outcomes, would be the intent to profit maximise. Collison (2003) outlines that the business media and textbooks make it clear that "profit is an output to be maximised" (ibid:862); a view supported by management scholars who discuss how conventional notions regarding organisational objectives and strategy are to maximise profits and or revenues and productivity (for example see: Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Morgan, 2006; Shrivastava, 1995a,c; Purser, et al., 1995; Whittington, 1993). The intent to maximise profit has an adverse impact on the environment. For example, Hardin (1968) discusses how, if the world is limited, a single herdsman's desire for additional profits maybe captured by the individual but the result is common ground that is overgrazed and depleted for all herdsmen. Further, a continual drive to increase profit results in continued depletion of the common ground. This same logic is also discussed by, for example, Meadows, et al., (2005) citing Moxness (2000) who highlight that if profit maximisation is pursued then unsustainable harvests will be pursued as opposed to sustainable harvests. Consequently, profit maximisation not only puts organisations into a mode of externalising as many costs as they can (with these costs being borne by society or the environment in terms of environmental degradation or a change in its capacity rather than the organisation itself) but it also exacerbates environmental degradation on a limited planet.

Taking this further if an organisation is pursuing profit maximisation, other outcomes (for example; social and environmental outcomes) can only be pursued if they do not impinge on this overriding aim. Moreover pursuing profit maximisation is counter to

the question of sufficiency and inconsistent with sustaincentric or ecocentric paradigms which recognise a limited world and an inability to grow ad infinitum. These observations lead to the fourth research question: a question that aims to not only test an interviewee relative to question three but also allow further exploration of the likely paradigm of the organisation.

Q4: Does the organisation pursue profit maximisation?

The pursuit of profit maximisation and continual growth in profits arguably becomes the axiom for quoted organisations. Smith (2003) argues that for quoted organisations "no matter how profitable the company is today it must be more profitable tomorrow" (ibid:366). Further for a quoted organisation "today's share price reflects today's profit and the 'normal' growth inherent in that profit stream...[further]...to drive growth in the share price, profit streams over and above this 'normal' level must be promised" (Smith, 2003:366). Smith (2003) develops the argument to state that this results in managers of quoted organisations focusing on "perpetual growth in profitability" (ibid:366) and akin to perpetual motion "all life in the corporate world [becomes] a function of the money that is being made or not made" (ibid:358).

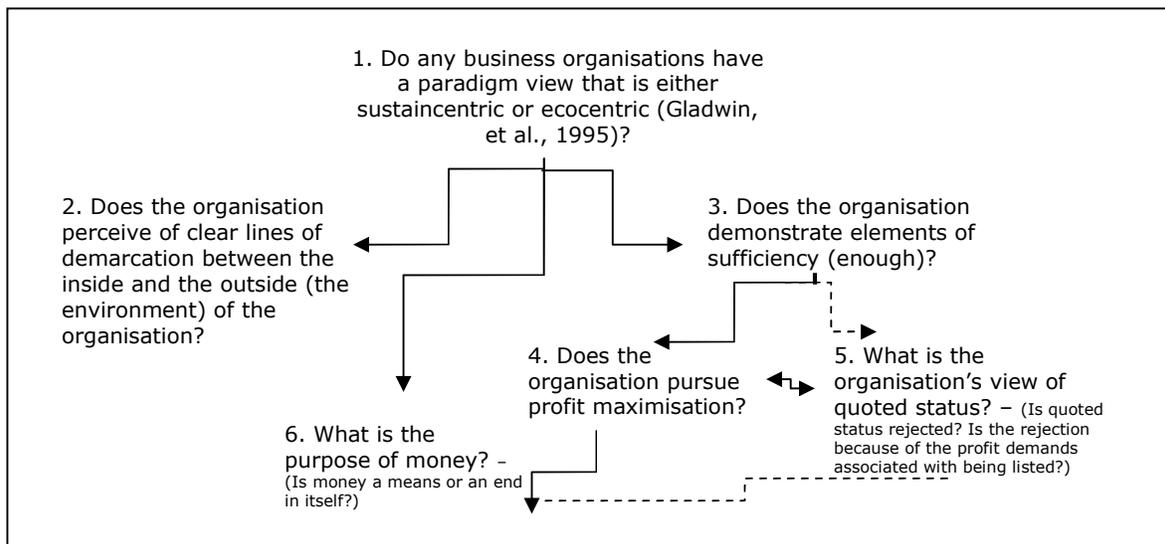
Similarly, De Scitovsky (1943) outlined, over half a century ago, that for the individual "it is not a high but a rising income that is a sign of business success" (ibid: 59), a view echoed by Jensen (1989) who stated that "corporate growth enhances the social prominence, public prestige, and political power of senior executives" (ibid:66). The drive for growth inherent in the pursuit of profit maximisation coupled with it realising a focus on money as the sole locus of concern and value is counter to the constituent assumptions within ecocentric or sustaincentric paradigms. Further as Katz and Kahn (1966) argue "it is a commonplace executive observation that businesses exist to make money, and the observation is usually allowed to go unchallenged" (Shafritz & Ott, 1992:272, citing Katz & Kahn (1966)). These arguments thus lead to the final two research questions.

Q5: What is the organisation's view of quoted status? - (Is quoted status rejected? Is the rejection because of the profit demands associated with being listed?)⁴⁵

Q6: What is the purpose of money in the organisation? - (Is money a means or an end in itself?)⁴⁶

The five research questions developed here support the primary research question (do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)?) as well as allowing the exploration of an organisation's paradigm and testing interviewees' responses from a number of perspectives. As a result the questions are related to each other, a relationship that is captured schematically in Figure 2.3. Having outlined the research questions, the next section focuses on defining an organisation and the organisational theory that is most appropriate within the context of this research.

Figure 2.3: Schematic Outlining the Linkages between Research Questions



⁴⁵ The bracketed text following the hyphen on research question five attempts to outline the normative underpinnings of this research study and thus an assumption of what may be found with the researched organisations. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

⁴⁶ As with question five, the bracketed text following the hyphen on research question six attempts to outline the normative underpinnings of this research study and thus an assumption of what may be found with the researched organisations. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

2.4 Defining an Organisation & Organisational Theory

Having developed the research questions, two key aspects that have not been developed are how this study defines and theorises an organisation. The following section will address these two aspects.

2.4.1 Defining an Organisation

Numerous definitions of an organisation are offered in the literature including: "special purpose social collectives whose activities are informed by the interests of organisational participants" (Egri & Pinfield, 1999:225); "a social device for efficiently accomplishing through group means some stated purpose" (Katz & Kahn, 1966:16), "economic and legal entities created by groups of people who have common or, at least, compatible goals" (Shrivastava, 1995a:123); "a social unit with some particular purposes" (Shafritz & Ott, 1992:1); "collectives of people whose activities are consciously designed, coordinated and directed by their members in order to pursue explicit purposes and attain particular common objectives or goals" (McAuley, et al., 2007:12); "the rational coordination of the activities of a number of people for the achievement of some common explicit purpose or goal" (McAuley, et al., 2007:12 citing Schien,1970:9);"the arrangement of personnel for facilitating the accomplishment of some agreed purpose through the allocation of functions and responsibilities" (Burrell & Morgan, 1979:152 citing Gaus, 1936:66) and an organisation is "a system of consciously co-ordinated activities or forces of two or more persons" (Burrell & Morgan, 1979: 152 citing Barnard, 1938:73).

The above definitions are similar in their content and this study draws on two consistent elements in these definitions. First organisations are intended to realise a purpose, for example; as Morgan (2006) highlights, organisations are "rarely established as ends in themselves" (ibid:15) rather they are created to achieve other ends as "reflected in the origins of the word organisation, which derives from the Greek word *organon*, meaning a tool or instrument" (ibid:15). Consequently participants use organisations "to shape the future according to their individual and/or collective imaginations" (Sarasvathy, 2004:522);⁴⁷ with an organisation emerging from the interaction of agents and their conceptions of their environment

⁴⁷ Also see, Morgan (2006) and Sarasvathy (2001) for further support.

(Katz & Gartner, 1988; McAuley et al., 2007; Sarasvathy, 2001, 2004). Second as organisations are implements formed by individuals, they are also social constructions (Berger & Luckmann, 1967). Consequently even though organisations may have tangible elements and effects, they are essentially anchored in the values, beliefs, assumptions, perceptions, meanings and attitudes of their participants (for example see: Egri & Pinfield, 1999; Kornberger, et al., 2006; Katz & Kahn, 1966; Laughlin, 1991; Morgan, 2006; Shafritz & Ott, 1992).⁴⁸

Two notes of caution arise, in building from the above definitions of organisation. First if taken literally the definitions imply an organisation has a goal, as if it were a single individual, and that there is consensus between all of the organisation's members. Second, in according that organisations have a goal there may be a danger of prioritising the goals of one set of individuals over another, i.e. prioritising senior management goals over other individuals in an organisation (McAuley, et al., 2007). Outside of these two notes of caution and notwithstanding other areas of contested terrain, another difficulty when considering organisations is that there is a possibility that "environmental degradation becomes relevant only when the performance of a focal organisation and the welfare of organisational participants are affected by such concerns" (Egri & Pinfield, 1999:223). In this regard a focus on organisations creates an *orgocentric* perspective (Egri & Pinfield, 1999), where organisations become the foci and environmental and social concerns are only defined relative to them. Self evidently this research in focusing on organisations has an inescapable orgocentric aspect to it. Nevertheless, this orgocentric aspect should not be misinterpreted as this study also carries with it an understanding that any organisation should be free to continue or cease as part of an aggregate mix that is sustainable (Devereaux Jennings & Zandbergen, 1995).

2.4.2 Organisational Theory

All theories of an organisation, it has been argued, "are based on implicit images or metaphors that lead us to see, understand, and manage organisations in distinctive yet partial ways" (Morgan, 2006:4). Further while any given metaphor or theory may be persuasive, it is also at the same time blinding and blocks an ability to gain an

⁴⁸ In other words the paradigms of the participants.

overall view (Morgan, 2006). Numerous theories of organisations are evident in the literature; for example considering organisations as: coalitions of individuals contracting with each other (Polanyi, 2001; Shafritz & Ott, 1992 citing Cyert & March, 1959), verbal systems (Kornberger, et al., 2006 citing Hazen, 1993), an amalgam of interpretive schemes, design architectures and sub systems (Laughlin, 1991), information processing networks (Shafritz & Ott, 1992 citing Galbraith, 1973), cultures and shared meanings (Morgan, 2006, Shafritz & Ott, 1992 citing Smircich, 1983), psychic prisons, political systems and instruments of domination (Morgan, 2006), to name a few. It is argued that the traditional orthodoxy in organisational theory is dominated by perspectives that view organisations as machines or organisms (for example see: Egri & Pinfield, 1999; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992). In the machine metaphor, organisations act in accordance with rational economic principles, the goal is to increase wealth, they are mechanistic, the pursuit of efficiency is paramount, the organisation is essentially closed and the external environment is ignored (Egri & Pinfield, 1999; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992). When viewing organisations as organisms, what comes to the fore is a focus on the continued survival of the organisation and the environment is attended to in so much as it impacts organisational survival (Egri & Pinfield, 1999; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992). The difficulty of an organism metaphor is that organisations are contrived by humans and in equating them to an organism there is a danger that they are equated to a form of life (Morgan, 2006; Shafritz & Ott, 1992). Notwithstanding this, the strength of the organism metaphor is that it highlights organisations are ongoing processes (Morgan, 2006) and it highlights that organisations are systems (Shafritz & Ott, 1992).

Within the context of this research a difficulty of machine and organism metaphors is that they are associated with a narrow conception of self interest where there is a boundary between the organisation and its environment and the focus is either the organisation alone (machine metaphor) or the environment in relation to the organisation (organism metaphor). In this regard these metaphors/theories can be argued to be complicit with technocentrism/anthropocentrism (for example see: Egri & Pinfield, 1999; Gladwin, et al., 1995). Sustaincentrism and ecocentrism seeks to dissolve the boundary between the organisation and the environment; hence the organisational theory most appropriate for this research is open systems theory, an

organisational theory that does not separate an organisation from its environment but rather embeds it in it (Egri & Pinfield, 1999; Shafritz & Ott, 1992; Stead & Stead, 1992).⁴⁹ In open systems theory an organisation is conceived of as “a complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, feedback loops and the environment in which it operates and continuously interacts” (Shafritz & Ott, 1992:263). Thus organisations both adjust to their environment but also affect their environment by their decisions and actions. Taking this further, Katz and Kahn (1966) outline that with open systems theory an organisation can be considered as an “energetic input-output system in which the energetic return from the output reactivates the system” (ibid:16).

While the consideration of an organisation as an energetic input output system may result from open systems theory, Katz and Kahn (1966) also offer a note of caution regarding this view. In particular they caution against organisations being equated to biological systems and nor should there be a focus on only the material inputs and outputs to and from organisations implied by the term energetic. Rather Katz and Kahn (1966) argue organisations are contrived by humans. Further, while organisations may exchange materials and energy with their environment, these exchanges are informed by the social systems of organisations. Thus an organisation is held together by “psychological rather than biological” processes (Katz & Kahn, 1966:33) and organisations are “anchored in the attitudes, perceptions, beliefs motivations, habits and expectations of human beings” (ibid: 33). Consequently open systems theory⁵⁰ not only creates the possibility to dissolve the boundary between an organisation and its environment, making it consistent with sustaincentric and ecocentric paradigms. But the clarification of Katz and Kahn (1966) regarding an organisation being guided by the psychology of individuals with this psychology being anchored in individuals’ attitudes and assumptions makes open systems theory consistent with the investigation of paradigms and that the paradigms held by the individuals of an organisation influence organisational behaviour.⁵¹

⁴⁹ Egri and Pinfield (1999) highlight that open systems theory is the most promising organisational theory for bridging organisations and paradigms such as sustaincentrism (reform environmental paradigm) and ecocentrism (radical environmental paradigm).

⁵⁰ Another aspect of open systems theory is that it may equate an organisation to an energetic input output system and money may be “a convenient way of handling energy units” (Shafritz & Ott, 1992:272 citing Katz and Kahn, 1966). At the same time open systems theory also highlights that money is “a very limited statement about the purposes of business” (Shafritz & Ott, 1992:272 citing Katz and Kahn, 1966).

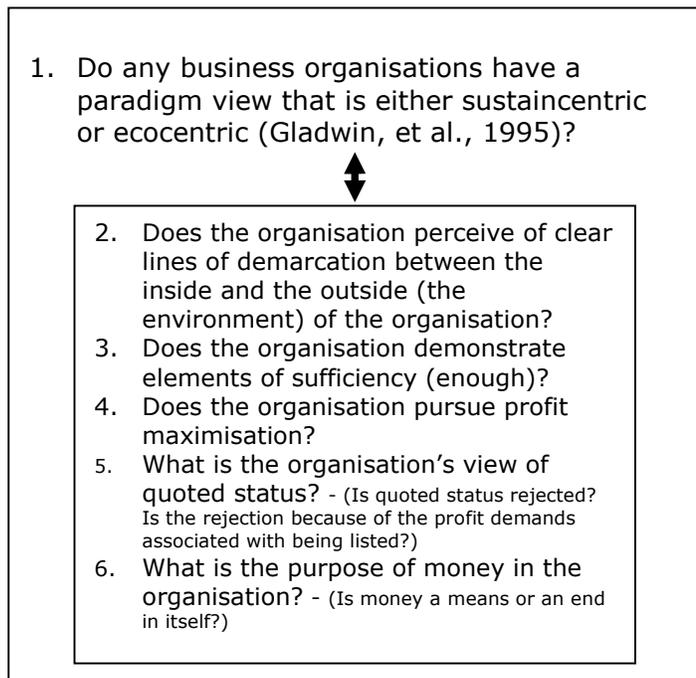
⁵¹ Further support for this claim that paradigms influence an organisations behaviour can be found by referring to, for example: Andersson and Bateman, 2000; Capra, 2003; Clegg, et al., 2006; Colby, 1991; Devereaux Jennings and Zandbergen, 1995; Eckersley, 2003; Egri and Herman, 2000; Egri and Pinfield,

Summary

This chapter has attempted to highlight the rationale behind the six research questions (reiterated in Figure 2.4)⁵² that are at the core of this exploratory research study. In addition it has outlined how this research study defines an organisation and the organisational theory of choice, open systems theory.

In building its arguments the chapter began by briefly discussing the environmental crisis and the implication that organisations have not only helped to create the crisis but may also have a role to play in resolving environmental issues (for example see: Deegan & Shelly, 2006; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gray, et al., 1993; Shrivastava, 1995a,b,c). From this starting premise paradigm definitions were discussed and one was chosen for this research - "a world view or frame of meaning which is

Figure 2.4: Research Questions



composed of shared values, core beliefs and assumptions of the members of a certain group" (Halme, 1996:97). The chapter then reviewed the discussion of paradigms in the management literature highlighting how numerous scholars argue that organisations need to move away from operating to an anthropocentric paradigm towards an environmental paradigm (for example see: Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Shrivastava, 1995a). This discussion also highlighted that although scholars

1999; Gladwin, et al., 1995, 1996; Gopalkrishnan, 1999; Grout and Kajzer, 2003; Halme, 1996; Hanna, 1995; Johnson, 1996; Keeley, 1983; Morgan, 2006; Pauchant, 1996; Purser, et al., 1995; Purser and Montuori, 1996 and Shrivastava, 1995a.

⁵² ⁵² Please note as outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

make the call for organisations to embrace a new paradigm there are mixed empirical results for whether paradigms influence behaviour. However, three management studies (Andersson & Bateman, 2000; Egri & Herman, 2000 and Halme, 1996) highlight that paradigms appear to influence behaviour, a result that is taken as an assumption for this study.

The chapter then discussed various paradigm schemes offered by the management literature. It highlighted how paradigm schemes are typically constructed between and inclusive of poles of anthropocentrism and ecocentrism, where movement between the poles can be likened to movement along a spectrum from weak to strong sustainability (Brych, et al., 2007) or an expansion of self interest (Egri & Pinfield, 1999) from narrow to wider concerns. Further the paradigm scheme offered by Gladwin, et al., (1995) was highlighted as being at the core of this research.

The discussion then moved to some of the critiques of paradigm schemes, such as them effectively being 'strawmen' (for example see: Egri & Pinfield, 1999 and Hanna, 1995) and that paradigms such as sustaincentrism, which 'sit' between the poles of anthropocentrism and ecocentrism, whilst perhaps being broadly acceptable to mainstream actors in society, fail to get to the roots of ecological problems (Purser & Montuouri, 1996). Following this it was outlined that there has been a relative paucity of research on organisations' paradigms within management literature and this creates an opportunity for this study.

After developing the research questions, the chapter drew to a close by discussing how an organisation can be defined and the organisational theory of choice for this research study. In defining an organisation there was a focus on how an organisation is a tool (Morgan, 2006) used by humans to shape their future (Sarasvathy, 2004) and that the glue that holds an organisation together is essentially psychological (Katz & Kahn, 1966); thus reinforcing the importance of paradigms or the beliefs and assumptions of the individuals in the organisation as impacting upon organisations' actions.

Open systems theory was chosen as the theory of choice for this research because it conceptually dissolves the boundary between the organisation and the environment and thus it is a theory congruent with the broad thrust of this study. An important

aspect to note regarding this choice of theory is that no metaphor was attached to it, as Morgan (2006) argues that a metaphor invariably gets attached to a theory. The rejection of a metaphor, at this stage, was taken to avoid the trap of falling into an orgocentric view (Egri & Pinfield, 1999). Where for example if an organism metaphor had been chosen, this might create a focus on issues only being defined relative to the organisation or because the organisation is being likened to an organism, the organisation becoming a unit of survival (Morgan, 2006; Shafritz & Ott, 1992). An outcome that is not in alignment with the broader realms of this research given this research is not concerned with the survival of a particular organisation, as opposed to understanding how organisations might be part of the solution to environmental issues.⁵³

⁵³ The discussion of open systems theory is expanded upon in chapter three, section 3.2.

Chapter 3

Literature to Research

Introduction

This chapter attempts to bridge between the literature review and the research results. The chapter begins by locating the research within the framework offered by Burrell and Morgan (1979) regarding social theories, outlining that the research falls within the functionalist paradigm.⁵⁴ Following this, Burrell and Morgan's (1979) discussion of open systems theory is reviewed. The chapter then discusses a number of areas. First, an overview of the process of designing the research is discussed. Second, the chosen research method is discussed, with the discussion highlighting how this study is placed relative to other studies that have either specifically researched or discussed paradigms within their findings. Third, how the target sample of organisations was identified is explained. This discussion also focuses on the importance of organisational mission as an identifier and why the views of senior individuals in an organisation are a useful heuristic for understanding an organisation's paradigm. Having outlined the major components of research design, the final area discussed is the development of the six research questions into a semi-structured interview guide. Following this, the chapter closes with a summary.

3.1 Mapping this Research to Burrell and Morgan (1979) Frameworks

Burrell and Morgan (1979) classify social science research as to whether it tends towards objectivist or subjectivist views of society. This classification is done via the understanding and use of two frameworks that Burrell and Morgan (1979) developed and explain as "heuristic device[s] rather than a rigid set of definitions" (ibid:xii). The first framework (see Figure 3.1) outlines the subjective-objective dimension along axes of ontology, epistemology, human nature and methodology. The second framework (Figure 3.2) takes the first framework and adds one further dimension of radical change and regulation to develop four paradigms into which social theories can be placed. Prior to discussing these frameworks and how this research is placed

⁵⁴ During the viva of this thesis (8th December 2010) there was extensive discussion with the examiners about whether this research might actually be interpretive rather than functionalist. To address this debate, a note of reflection has been added to Appendix 3, the appendix that supports this chapter, section A3.7.

within them it is worthwhile highlighting two aspects of Burrell and Morgan's (1979) work and how these aspects pertain to this research.

The first aspect is with regard to Burrell and Morgan's (1979) discussion of social science theory and the social scientist. The frameworks offered by Burrell and Morgan (1979) are about the positioning of

different social science theories. However, Burrell and Morgan (1979) also make it clear that the positioning of social science theories is also a positioning of the scientist and as such there is not necessarily a clear line of demarcation between a theory and the researcher. For example, Burrell and Morgan (1979) highlight that analysing social theory against the frameworks brings social scientists not only "face to face with the nature

of the assumptions which underwrite different approaches to social science" (ibid:iix), but the frameworks also stress "the crucial role played by the scientist's frame of reference in the generation of social theory" (ibid:iix). As whether social scientists "are aware of it or not,

they bring to their subject of study a frame of reference which reflects a whole series of assumptions about the nature of the social world and the way in which it might be investigated" (ibid:x). Further, Burrell and Morgan (1979) argue that the movement

Figure 3.1: The Subjective-Objective Dimension: A Scheme for Analysing the Assumptions about the Nature of Social Science (Burrell & Morgan, 1979:3)

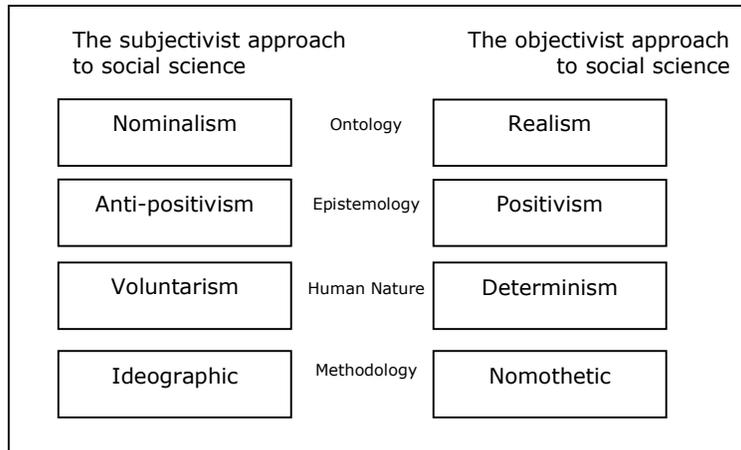
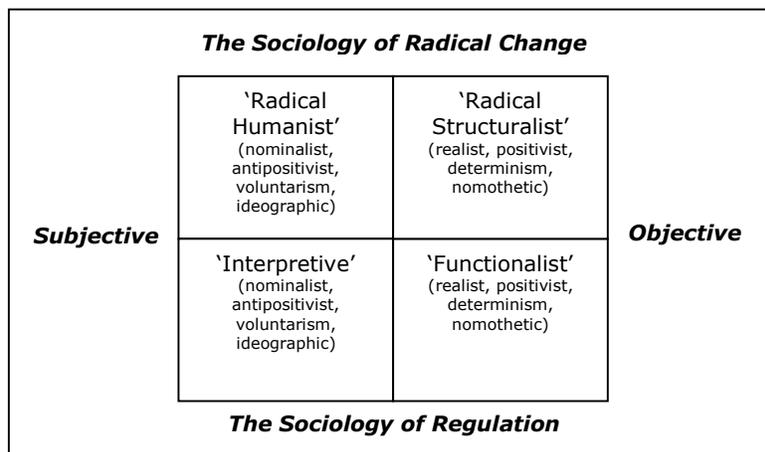


Figure 3.2: Four Paradigms for the Analysis of Social Theory (Burrell & Morgan, 1979:22)



of social scientists between paradigms (see Figure 3.2) is rare, as “for a theorist to switch paradigms calls for a change in meta-theoretical assumptions, something which, although manifestly possible, is often not achieved in practice”

⁴⁸ (ibid:24). This aspect of Burrell and Morgan’s (1979) work is likely to be self-evident to many, if not all, social science researchers. However, it is highlighted here to make clear that this narrative of social theory being closely wedded to or an extension of the researcher and not separate from the researcher runs through Burrell and Morgan’s (1979) work. Thus a note of caution arises, whereby, while this research can be mapped to Burrell and Morgan’s (1979) frameworks, this mapping does not fully represent, for example, the ontology of this researcher. Thus it is important not to equate this research and its placement on the frameworks as being the equivalent of placing this researcher’s views on the frameworks. Particularly as through the conduct of this study, while the researcher has aimed to maintain a realist ontology he has also drifted towards a nominalist position. Similarly epistemologically he has moved from a positivist position towards a more anti-positivist stance. As mentioned in chapter one, this movement is apparent in the writing up of the study’s results and the caveating regarding subjectivity.⁴⁹ However, while the movement may be apparent in the writing, as will be explained below, this research is realist and positivist.

The second aspect to highlight is that Burrell and Morgan (1979) are clear that their frameworks are about “the nature of the social world and the way it may be investigated” (ibid:1). The important aspect to note here is that the focus is on the ‘social world’ and assumptions regarding society. In this regard the frameworks are not about the natural world⁵⁰ as Burrell and Morgan (1979) would describe it. This is a point Burrell and Morgan (1979) make clear when discussing how, for example, sociological positivism “treats the social world as if it were the natural world” (ibid:7). Whereas, in contrast “the German idealist tradition [holds] that there [is] a fundamental difference between nature and culture and that natural laws [are] inappropriate to the realm of human affairs” (Burrell & Morgan, 1979:69). What is seen in both quotes is that Burrell and Morgan (1979) are inserting a clear line of

⁴⁸ Burrell and Morgan (1979) identify Marx as moving from a radical humanist paradigm to a radical structuralist paradigm and Silverman moving from a functionalist paradigm to an interpretative paradigm.

⁴⁹ It is also apparent, to a degree, in the choice of ANT as a theoretical lens, albeit ANT aims to bypass any realist and nominalist dichotomies.

⁵⁰ Where the natural world, although not defined by Burrell and Morgan (1979) could be surmised as being the material world of the environment, for example: trees, atmosphere, oceans, etc.

demarcation between society and nature, where sociological positivism is about parallels between social and natural worlds and German idealism is about the rejection of parallels between the social and natural worlds. Again this aspect of Burrell and Morgan's (1979) work is likely to be self evident to most, if not all, social science researchers. However, this aspect is highlighted because in the previous chapter (chapter two) and the discussion of paradigms, for example ecocentrism and sustaincentrism (Gladwin, et al., 1995), it was highlighted that these paradigms remove lines of demarcation between humans and the environment or alternatively the social and the natural worlds (to use Burrell & Morgan's (1979) phraseology). Consequently, although this research is clearly social science research, it is investigating paradigms which would denote no separation. This aspect, although not significant to the programme of study that is this research and the classifying of it against the Burrell and Morgan (1979) frameworks, is highlighted because there is some element of incongruence between the paradigms to be investigated and Burrell and Morgan's (1979) discussion of natural and social worlds within the context of their frameworks. This point is also made clear by Meima (1996) who outlines that the management scholars who discuss environmental paradigms such as: Devereaux Jennings and Zandbergen (1995), Gladwin, et al., (1995), Purser, et al., (1995) and Shrivastava (1995a) oscillate "between objectivism and subjectivism, and they end up mainly leaning toward the epistemology of the soft human factor in a hard world" (Meima, 1996: 916).

Turning away from these two, perhaps self evident aspects and back to this research study and how it is placed against the Burrell and Morgan (1979) frameworks, when considering the first of the four subjective-objective axes (see Figure 3.1) and assumptions of an ontological nature. Burrell and Morgan (1979) highlight that this axis pertains to a basic ontological question "whether the reality to be investigated is external to the individual...or the product of individual consciousness" (ibid: 1), the two extremes on this axis are realism and nominalism. The realist position posits that "the social world exists independently of an individual's appreciation of it" and an individual is viewed "as being born into and living within a world which has a reality of its own" (Burrell & Morgan, 1979:4).⁵¹ Thus in the realist position, reality

⁵¹ As seen in the quote there is a focus on the social world within Burrell and Morgan's (1979) frameworks. This in effect is focusing the ontological question down to a specific area and is thus different to perhaps broader definitions of ontology such as that offered by Abercrombie, Hill and Turner (2000) who define an ontology as the "branch of philosophy or metaphysics [that] is concerned with the nature of existence.

is not created by the individual, it exists 'out there' and is ontologically "prior to the existence and consciousness of any single human being" (Burrell & Morgan, 1979:4). In contrast the nominalist position "revolves around the assumption that the social world external to the individual cognition is made up of nothing more than names, concepts and labels which are used to structure reality" (Burrell & Morgan, 1979:4).

The second axis concerns assumptions of an epistemological nature: that is, "assumptions about the grounds of knowledge [and]...how one might begin to understand the world and communicate this knowledge to fellow human beings" (Burrell & Morgan, 1979:1). Burrell and Morgan (1979) highlight that epistemological assumptions are predicated upon "whether it is possible to identify and communicate the nature of knowledge as being hard, real and capable of being transmitted in tangible form, or whether knowledge is ...more subjective, based on experience and [of an]...essentially personal nature" (Burrell & Morgan, 1979:2). In sum they explore if knowledge is "something which can be acquired...or something which has to be personally experienced" (Burrell & Morgan, 1979:2). The extremes on this axis are positivism and anti-positivism. Positivism seeks "to explain and predict what happens in the social world by searching for regularities and causal relationships" (Burrell & Morgan, 1979:5), with this knowledge being able to be transmitted by an observer. Anti-positivism, in contrast, is "set against the utility of a search for laws or underlying regularities in the world of social affairs" (Burrell & Morgan, 1979:5) and the "social world is essentially relativistic and can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied" (ibid:5). Thus anti-positivism rejects the standpoint of the observer and "one has to understand from the inside rather than the outside" (Burrell & Morgan, 1979:5).

The third axis concerns assumptions pertaining to human nature. Burrell and Morgan (1979) make it clear that assumptions regarding human nature are "conceptually separate" (ibid: 2) from the previous two axes. They note, however, that all social science relies on an assumption regarding human nature. The extremes on this axis are determinism and voluntarism. Where determinism regards humans and their activities as being "completely determined" (Burrell & Morgan, 1979:6) by the situation in which they are located. Thus human nature is viewed as

[Where] ontological assumptions are those assumptions that underpin theories about what kind of entities can exist" (ibid:246).

being a product of the environment. At the other extreme is voluntarism where humans are viewed as being "completely autonomous and free-willed" (Burrell & Morgan, 1979:6) and they are thus the creator of the environment in which they are located. These two positions are quite clearly extremes and Burrell and Morgan (1979) make it clear that many social science theories "incline implicitly or explicitly to one or other" (ibid:6) of these extremes "or adopt an intermediate standpoint which allows for the influence of both situational and voluntary factors in accounting for the activities of human beings" (ibid:6).

The fourth and final axis, methodology, results from the three previous axes, as the previous assumptions have "direct implications of a methodological nature" (Burrell & Morgan, 1979:2). In this regard, a position on the fourth axis is implied or drawn out from the assumptions and positioning on the previous axes. The two extremes on this axis are nomothetic and ideographic. If the assumptions of the three previous axes are towards the objective end then the "scientific endeavour is likely to focus upon an analysis of relationships and regularities" (ibid:3). Thus the methodology will be nomothetic and the focus will be on concepts and "their measurement and the identification of underlying themes" (Burrell & Morgan, 1979:3). Consequently nomothetic methodologies emphasise the application of a "systematic protocol and technique" (Burrell & Morgan, 1979:6), the testing of hypotheses and the conducting of, for example; large scale surveys. In contrast if the assumptions of the previous axes are towards the subjective end then scientific endeavour is likely to be concerned with the subjectivity of individuals and how they create modify and interpret their world (Burrell & Morgan, 1979). Thus the methodology will be ideographic and emphasise the importance of obtaining firsthand knowledge and "getting close to one's subject and exploring its detailed background and life history" (Burrell & Morgan, 1979:6). The focus being on "getting inside" (Burrell & Morgan, 1979:6) the situation and analysing subjective accounts, be they with the subject or from "insights revealed in impressionistic accounts" (ibid:6).

Moving to the second framework (see Figure 3.2), this framework consists of four paradigms for the analysis of social theory. This framework builds upon the first framework (see Figure 3.1) but adds to it notions about society and change: the sociology of regulation and the sociology of radical change. The sociology of

regulation is used to refer to theorists whose primary concern is to “provide explanations of society in terms which emphasise its underlying unity and cohesiveness” (Burrell & Morgan, 1979:17). As such, theorists ask questions which “tend to focus upon the need to understand why society is maintained as an entity” (Burrell & Morgan, 1979:17), where the theorists tend to provide explanations of society as an “actuality” rather than a “potentiality” or alternatively “what is” rather than “what is possible” (ibid:17). The sociology of radical change “stands in stark contrast to the sociology of regulation” (Burrell & Morgan, 1979:17) in that its focus is upon “deep-seated structural conflict, modes of domination and structural contradiction” (ibid:17). It is a sociology whose theorists focus upon the “deprivation of man” (Burrell & Morgan, 1979:17) and it is often “visionary and utopian” (ibid:17) in that it looks towards “potentiality as much as actuality” (ibid:17) and “what is possible rather than with what is” (ibid:17).⁵²

By applying notions of society and change (sociology of regulation, sociology of radical change) to the four subjective-objective axes (see Figure 3.1), the four paradigms that Burrell and Morgan (1979) derive are: Functionalist, Interpretive, Radical Humanist and Radical Structuralist. These four paradigms “define fundamentally different perspectives for the analysis of social phenomena” (Burrell & Morgan, 1979:23). By way of overview, the Functionalist paradigm is rooted in the sociology of regulation and approaches social science from an objective point of view. The Interpretive paradigm is again rooted in the sociology of regulation but seeks explanations of the social world at the level of the subjective experience of the participant as opposed to the observer. The Radical Humanist paradigm similarly to the interpretive paradigm seeks explanations of the social world at the level of subjective experience. However the Radical Humanist paradigm differs in that it “emphasises the importance of overthrowing or transcending the limitations of existing social arrangements” (Burrell & Morgan, 1979:32). The fourth and final paradigm, Radical Structuralist, is concerned with radical change but from an objectivist standpoint. Having outlined the two frameworks, how this research study is mapped against them is now outlined.

⁵² With regard to the sociology of regulation and the sociology of radical change, Burrell and Morgan (1979) make it clear that however much a theorist may view themselves as being in the middle ground between radical change and regulation, a theorist “must always be committed to one side more than another” (ibid:19).

In considering the first framework (Figure 3.1) and the subjective-objective dimension, this research study treats the social world as if it exists and is prior to an individual's cognition of it; hence it is realist in its position. Further the research is positivist in that it is viewing knowledge as something that cannot only be acquired and transmitted by an observer, but it is also searching for regularities and testing research questions. With regard to human nature, the research is deterministic in that it arises from a problematic of the environment and how this impacts a subject's actions. However, it is not totally deterministic regarding human nature. As in aiming to understand the paradigms of subjects it accounts for voluntaristic elements of human nature. Consequently, as Burrell and Morgan (1979) highlight, many theorists adopt an intermediate standpoint, and this research would tend towards this intermediate standpoint as well, although from a deterministic start. This is perhaps not unusual because as Meima (1996) highlighted this investigation of paradigms is focused upon soft human factors in a hard world, or more simplistically beliefs, assumptions and values and how these are both determined and determining of an individual's actions. Finally with regard to methodological assumptions this research study is nomothetical, as it is focused on the application of a systematic protocol and technique (semi-structured interviews) with subjects, the testing of a set of research questions and the identification of underlying themes.

Turning to the second framework (Figure 3.2) and given the assumptions of this research against the first framework, this research is either within the Radical Structuralist or Functionalist paradigms. As this research is focused upon questions about what is rather than what is possible, the research is aligned with the sociology of regulation and is within the Functionalist paradigm.⁵³

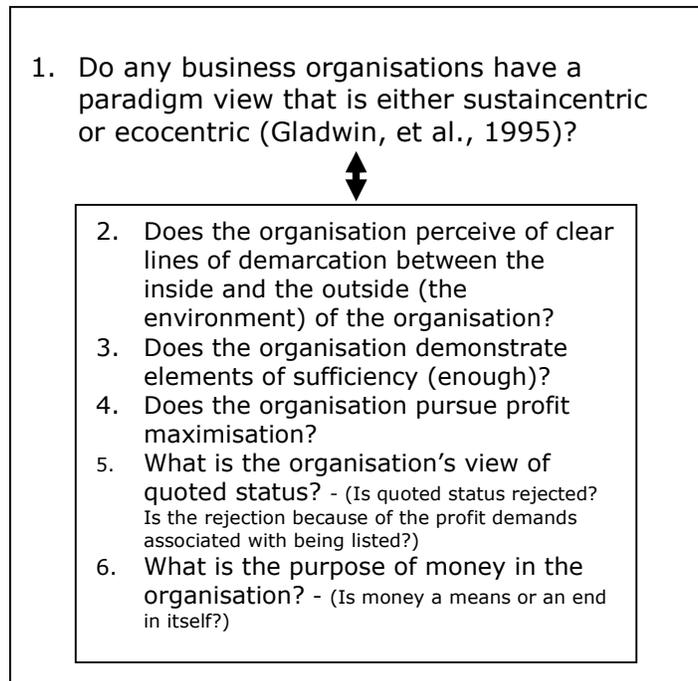
The placement of this research within the Functionalist paradigm is perhaps not surprising when considering the research questions and their phraseology (see Figure 3.3).⁵⁴ The questions use of the term 'organisations' as their subject, clearly

⁵³ During the viva of this thesis (8th December 2010) there was extensive discussion with the examiners about whether this research might actually be interpretive rather than functionalist. To address this debate, a note of reflection has been added to Appendix 3, the appendix that supports this chapter, section A3.7.

⁵⁴ The research questions are developed in chapter two. As outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

places this research within an objective space regarding assumptions of the social world. As they (the questions) treat organisations as if they exist as entities that can be identified, an aspect that would be questioned if, for example, an Interpretative stance was taken. Further in asking whether organisations are either sustaincentric or ecocentric, the research is looking to identify regularities and themes within its subjects and relay this information, hence it is not only positivist but in applying these questions consistently to the subjects it is nomothetical.

Figure 3.3: Research Questions



Turning away from the questions, that this research is within the Functionalist paradigm is again likely to be unsurprising given the choice of open systems theory, as an organisational theory (see previous chapter). This is because Burrell and Morgan (1979) outline where particular organisational theories sit within the paradigm framework and they identify open systems theory as being within the Functionalist paradigm.⁵⁵ In identifying that open systems theory sits within the Functionalist paradigm, Burrell and Morgan (1979) also engage in an extensive discussion about open systems theory and some of its characteristics regarding empirical application. This discussion by Burrell and Morgan (1979) will now be briefly engaged with prior to outlining the research design.

⁵⁵ Burrell and Morgan (1979) also outline that "systems theory is consistent with theoretical perspectives which extend beyond the confines of the functionalist paradigm" (ibid:49). However they do not explain or provide any further insight regarding this point.

3.2 Burrell and Morgan (1979) and Open Systems Theory

In Burrell and Morgan's (1979) extensive discussion of open systems theory they make three key points that are notes of caution for this research. These three points are: (1) the use of analogies with open systems theory, (2) the processual nature of open systems theory and (3) how when using open systems theory it is important not to reify the organisation. Taking each point in turn, in discussing open systems theory, Burrell and Morgan (1979) outline that one of the purposes of open systems theory is "to study the pattern of relationships which characterise a system and its relationship to its environment in order to understand the way in which it operates" (ibid:59). Further they outline that when applying open systems theory "social theorists have generally reached for some simple mechanical or organismic analogy in advance of any study of the system to which it is applied" (Burrell & Morgan, 1979:68). This, Burrell and Morgan argue, is a mistake because "the open systems approach does not carry with it the implication that any one particular kind of analogy is appropriate for studying all systems" (Burrell & Morgan, 1979:59). Further they state that there is no particular analogy that needs to be applied to open systems theory and if an analogy is preselected it is "akin to prescription in advance of diagnosis" (Burrell & Morgan, 1979:68), a situation which results in "rough justice" (Burrell & Morgan, 1979:68) being applied to the social phenomena under investigation.

The second point regarding the processual nature of open systems theory concerns how "the processual nature of the system does not lend itself to meaningful study through the use of ...snapshots" (Burrell & Morgan, 1979:180). Burrell and Morgan (1979) argue that when open systems theory is put into practice at an empirical level "it often ends up as an abstracted form of empiricism which defies the processual nature of the systems concept" (ibid:160). Thus they highlight that while "as a heuristic device the dynamic essence of the systems concept can be maintained as events are conceptualised in terms of an open field of continuous action" (Burrell & Morgan, 1979:160), at the empirical level the result is often to "identify relatively static system parts" (Burrell & Morgan, 1979:160).

The third point Burrell and Morgan (1979) make draws on Silverman (1970). The argument is made that the systems approach, as applied to organisations, has "severe logical difficulties" (Burrell & Morgan, 1979:196, citing Silverman, 1970). This is because with the systems approach, organisations could be seen as having needs, a situation that could result in the reification of the organisation, where the organisation is accorded the "power of thought and action" (Burrell & Morgan, 1979:196). Thus Burrell and Morgan (1979) argue that systems theory should only be used as a "heuristic device" (ibid:196). Further, there is a need to be cognisant of the fact that views ascribed to the organisation are actually the views and explanations of the individual human beings who are the constituent members of the organisation.

These points are areas of concern for this research study, however, as highlighted in chapter two, with regard to the first point (metaphors and open systems theory) a metaphor/analogy has not been attached to use of open systems theory in this research, at least not prior to the results and discussion sections. Thus in this instance, this study would appear to have avoided making a prescription in advance of a diagnosis and meting out rough justice (Burrell & Morgan, 1979). However, in drawing upon Katz and Kahn (1966) when discussing open systems theory in the previous chapter, an analogy may be being prescribed implicitly. This is because Burrell and Morgan (1979) argue that Katz and Kahn apply a "qualified biological analogy" (Burrell & Morgan, 1979:159) because the input-throughput-output aspect of the system is biological, but a qualification is applied in the sense that Katz and Kahn (1966) recognise that "social systems do not have a physical structure" (Burrell & Morgan, 1979:159).

Turning to the second point, the processual nature of systems theory and abstracted empiricism, this is a more difficult area for this study to tackle. As will be explained in the following section on research design, this study uses a series of snapshot, semi-structured interviews. Thus there is a limitation in this exploratory study in that it will result in an abstracted form of empiricism relative to its choice of organisational theory. There is an inescapable aspect to this limitation as a processual theory resists communication via a static media such as a report.⁵⁶

⁵⁶ "Any system of representation....automatically freezes the flow of experience and in doing so distorts what it strives to represent" (Cuganesan, 2008:99 citing Harvey, 1989:206).

Nevertheless, it should also be highlighted that this limitation was identified post the conducting of interviews. In retrospect this limitation could have been partly ameliorated via the use of extended access to interviewees' organisations; albeit this would have impacted the exploratory aspect of the research regarding accessing a range of organisations. Nevertheless, with hindsight, or perhaps more pertinently for future studies, it might be appropriate to conduct a series of interviews and observations at organisations to help ameliorate abstracted empiricism, albeit even these methods would not eliminate the phenomenon.

Figure 3.4: Silverman's (1970) Seven Propositions Regarding the Action Frame of Reference

Reproduced from Burrell and Morgan (1979:196-7) citing Silverman (1970:126-7)

1. The social sciences and the natural sciences deal with entirely different orders of subject-matter. While the canons of rigour and scepticism apply to both, one should not expect their perspective to be the same.
2. Sociology is concerned with understanding action rather than with observing behaviour. Action arises out of meanings which define social reality.
3. Meanings are given to men (sic) by their society. Shared orientations become institutionalised and are experienced by later generations as social facts.
4. While society defines man (sic), man (sic) in turn defines society. Particular constellations of meaning are only sustained by continual reaffirmation in everyday actions.
5. Through their interaction men (sic) also modify, change and transform social meanings.
6. It follows that explanations of human actions must take account of the meanings which those concerned assign to their acts; the manner in which the everyday world is socially constructed yet perceived as real and routine becomes a crucial concern of sociological analysis.
7. Positivistic explanations, which assert that action is determined by external and constraining social or non-social forces, are inadmissible.

With regard to the final point, Burrell and Morgan (1979) highlight that Silverman's (1970) method of avoiding the reification of organisations is "to place man (sic) as a social actor at the centre of the stage, insofar as the analysis of social phenomena such as organisations" (ibid:196) is concerned. In support of this, Silverman (1970) offers seven propositions relating to his

action frame of reference (as outlined in Figure 3.4). As can be seen, these propositions focus on the meanings individuals both prescribe to society and have prescribed to them. Relating these propositions to this research study, it can be seen that the propositions are in effect creating a focus on paradigms, as the term paradigm has been defined for this study.⁵⁷ Thus while through the course of this study, the term organisation will be used, when what is actually being discussed are the views of particular individuals. It is hopefully clear that the study itself is focused

⁵⁷ As highlighted in the literature review chapter, paradigm is defined as "a world view or frame of meaning which is composed of the shared values, core beliefs and assumptions of the members of a certain group" (Halme, 1996:97), where within the context of this research the term 'group' refers to an organisation.

on social actors, these social actors are predominantly at the centre of the stage,⁵⁸ and the term organisation is actually being used as a short hand, albeit a short hand that could, if read without due consideration reify the organisation.

To close this discussion regarding the three notes of caution (analogies, processual nature and reifying the organisation), it has been shown that the points of concern are ameliorated, somewhat, in this research study. The key exception being that the abstracted empiricism of snapshot interviews relative to a processual theory is not tackled effectively, within the context of this study. Notwithstanding that this particular limitation was not identified until post interview stage, there is little that can be done other than to recognise this limitation, albeit it is perhaps an inescapable aspect to the use of systems theory for any study.

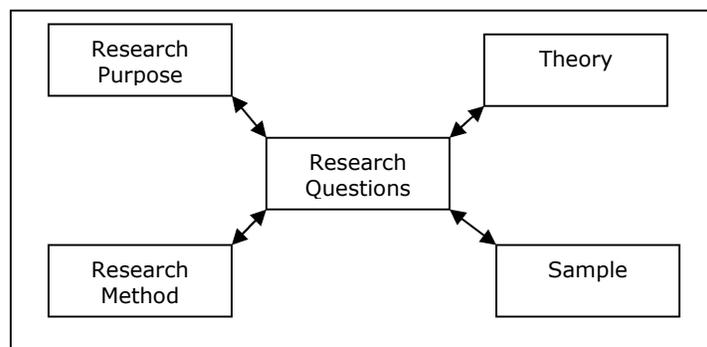
3.3 Research Design

The research design for this study did not progress in a linear manner; rather, the 'garbage can' (Robson, 2002) method of design was employed. In

employing the 'garbage can' method, Robson (2002) outlines that the terminology of 'garbage can' should not have values assigned to it, rather the point is to emphasise that the elements involved in designing the research are moving around the "decision space of the ...research project" (Robson, 2002:82 citing Grady & Wallston, 1988).

As seen in Figure 3.5, there are five components involved in research design; the research purpose, research questions, theory, research method and sample. The first three of these can be dealt with relatively quickly as they have been discussed either within the previous chapter or in this chapter. By way of a brief review, first, the purpose of this research is to understand if business organisations can be part of the

Figure 3.5: Conceptual Diagram of Research Design
(Adapted from Robson 2002:82)



⁵⁸ In chapter eight when Actor-Network Theory as an analytical lens is brought forward, the intention is to decentre the human actor and bypass the realism, nominalism debate.

solution to environmental problems. In particular whether there are business organisations that operate with an environmental paradigm is explored. Second, the research questions, that were originally brought forward in the literature review and are highlighted again in Figure 3.3, support this purpose. Third, this research conceives of organisations via the use of open systems theory. Further Actor-Network Theory (ANT) is to be used as a theoretical frame for analysis after analysing the results against the paradigm scheme of Gladwin, et al., (1995). Self evidently there are some methodological points to consider in utilising ANT and these should impact upon the research design. However, this discussion will not occur in this chapter⁵⁹ because the choice of ANT did not occur until after the gathering of data and an initial analysis of results. Hence the use of ANT as a theoretical lens had no impact upon the research design and the gathering of data and thus it is inappropriate to bring the theory into the discussion now, as if this theory had impacted the research design. Clearly, choosing a theoretical lens at such a late stage in a study is perhaps unconventional. However it is the realpolitik of this study and the late choice is, in some manner, congruent with the exploratory nature of this study. However, as will become clear when ANT is discussed in chapter eight, if this theory had been identified earlier, the research method in particular would have been altered.

3.3.1 Research Method

Prior to outlining the research method, the fourth component of research design, it is worth considering the methods employed by other studies that have in some way explored environmental paradigms. These studies can be categorised into three broad areas. First, those studies which explore paradigms as the core purpose, for example, Dunlap and Van Liere (2008) or Halme (1996). Second, those studies which explore the role of paradigms and their influence on behaviour, for example, Kilbourne, et al., (2002), Kilbourne and Carlson (2008) and Shafer (2006). Third, those studies which discuss environmental paradigms as a part of the study, with the study being focused upon other concerns, for example; Andersson and Bateman (2000), Brych, et al., (2007) and Egri and Herman (2000).⁶⁰

⁵⁹ See chapter eight for a discussion of ANT, how it fits with this research and how it informed an understanding of the data gathered.

⁶⁰ For a more complete discussion of the studies, highlighted here, please see Appendix 2, Table 9. Also excluded from this discussion are discursive papers by for example; Colby, 1991; Devereaux Jennings and

Dunlap and Van Liere's (2008)⁶¹ study used a questionnaire where each question had a four point Likert-type scale to explore the paradigms of individuals. The purpose of this study was to understand the strength of adherence by individuals (households and members of environmental organisations in Washington State) to an environmental paradigm (as defined by Dunlap & Van Liere, 2008). Conversely, Halme's (1996) research method was an in-depth case study of two Finnish companies that involved semi-structured interviews and document review in order to understand how the paradigm of the foci organisations evolved as institutional context changed.

The studies that explored the role of paradigms upon behaviour (Kilbourne, et al., 2002; Kilbourne & Carlson, 2008; Shafer, 2006) involved questionnaires which used a mix of Likert scales and semantic differential scales. These studies sought to understand students' strength of adherence to the dominant social paradigm and how this influenced their attitudes and behaviours. Turning to the third category of studies; studies that explored environmental paradigms as an aspect of their research, but understanding paradigms was not the primary purpose. The Andersson and Bateman (2000) study focused upon the successful and unsuccessful championing of environmental initiatives in US business organisations. The research method was a questionnaire that used a Likert scale, with the questionnaire results being supported by a sample of semi-structured interviews to add context. The exploration of paradigms in this study was done via the use of two items. The first concerned whether environmental criteria were included in the appraisal system and the second a questionnaire of perceptions regarding business and the environment.

In a similar manner to the Andersson and Bateman (2000) study, Egri and Herman (2000) also used questionnaires with the questions having a Likert scale and semi-structured interviews. However the primary method in this study was semi-structured interviews supported by questionnaires being left with the interviewees. The purpose of this study was to explore values and leadership styles in the North

Zandbergen, 1995; Egri and Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Purser, et al., 1995; Shrivastava, 1995a. This is because these papers set out environmental paradigms by conducting examinations of previously written work as opposed to conducting original empirical research.

⁶¹ This paper is actually a reprint of a paper originally printed in 1978.

American environmental sector (profit and not for profit) and paradigm adherence was explored via the use of Dunlap and Van Liere's (2008) paradigm questionnaire.

The final study that explored environmental paradigms as an aspect of the research was by Brych, et al., (2007). The purpose of this study was to explore the meaning of sustainable development held by New Zealand 'thought leaders'. The method involved semi-structured interviews and the use of cognitive mapping techniques with 21 thought leaders, none of whom were leaders of for profit business organisations. In this study, Gladwin, al's., (1995) paradigm scheme was suggested as being representative of the three broad narratives that resulted from the study, although no systematic analysis of interviews relative to the Gladwin, et al., (1995) scheme appears to have been conducted.

The methods employed in the above studies highlight that the view that paradigms are reflected in discourse. What is also evident is that those studies which focused on business organisations (or more specifically actors within business organisations) use either semi-structured interviews (Brych, et al., 2007; Halme, 1996) or a combination of semi-structured interviews and questionnaires (Andersson & Bateman, 2000; Egri & Herman, 2000). The use of semi-structured interviews, in particular, is to be expected as this qualitative technique not only allows sensitivity to context,⁶² but it also "elicit[s] the point of view of those being studied, not just that of those conducting the study" (Egri & Herman, 2000:581). A further advantage of using interviews is that views and assumptions will not always be fully formed. Rather understanding assumptions is likely to require probing and questioning. In this respect the semi-structured interview method is particularly useful. The research method adopted for this study is semi-structured interview. This method is consistent with other research in this area and fits with the exploratory nature of this study. In particular, this exploratory aspect to the research supports the choice of the semi-structured interview research method, as it is a method that provides flexibility. For example, the method allows the reordering or rewording of questions depending upon the interview situation.

⁶² To the degree that a paradigm might be sensitive to context – this sensitivity to context will be partly explored later in this chapter when discussing the focus for the research sample and the particular mission statements of the organisations targeted.

Having identified semi-structured interviews as the research method an obvious point of reflection is whether a paradigm questionnaire should be used in addition given the relatively predominant use of this method in other studies. This study does not use a questionnaire method either for primary or supporting data collection. The rationale for this is the exploratory nature of this study and a desire for flexibility. Further, although a questionnaire was considered, it was decided that a questionnaire would provide a rigidity that was not appropriate for the exploratory nature of the research, particularly as the use of a questionnaire would not allow conversation to flow and would likely be debilitating for interviews with senior individuals. That this study does not use a questionnaire method is a potential weakness of it, especially when comparing this study to other paradigm studies that have incorporated questionnaires (for example; Andersson & Bateman, 2000; Egri & Herman, 2000). However, not using a questionnaire does not undermine the research, rather the use of a questionnaire would have supported the research findings and been of help in countering claims made by a reviewer who might perhaps compare this study to other paradigm studies. Moreover if this research were to be conducted again it would be advised that a questionnaire be used as a supporting method to aid in the countering of any reviewer comments.

Another aspect supporting the use of semi-structured interviews as a research method is that it is a method that focuses on an individual and their discourse as opposed to the formal written accounts and pronouncements of an organisation. This focus on the individual is important and intentional because as Katz and Kahn (1966) highlight organisational outputs are likely to "idealise, rationalise, distort, omit or even conceal some aspects of the functioning of an organisation" (ibid:15). Hence researching documentation is unlikely to yield an understanding of the assumptions and values of organisational participants except in a potentially idealised manner. This study is also intending to get closer to an understanding of what organisational actors say about themselves to themselves, with regard to their values and assumptions, without the formality and idealisation inherent in organisational outputs. The semi-structured interview method supports this intent to a certain degree as it allows the researcher to test and explore the views of the research subject, thus providing an opportunity to get past the ideal statement of a formal organisational output. Nevertheless it is recognised that interviews with an external researcher do create a formality and veil, albeit that formality and veil is perhaps

more penetrable than would be the case if a sole focus had been put on the formal written accounts and pronouncements of an organisation.

As is congruent with the choice of semi-structured interview as the research method, the method of data collection is audio recording with subsequent transcribing. The use of recording and transcribing allows, in particular, descriptive validity. Threats to qualitative research, such as this study, have been categorised as interpretation, description and theory (Robson, 2002 citing Maxwell, 1992). Robson (2002) outlines that countering these threats relies on ensuring that source data is accurately reproduced and that there is a traceable route to the source data which a reader can review. Audio recordings and transcripts provide this traceable route, thus these three potential threats to the descriptive validity of this study are, to a degree, ameliorated.

3.3.2 Sample

The identifying of the sample of potential research subjects was, as per the 'garbage can' method of design, influenced by all the elements involved in designing research, with the primary influences being the research purpose and primary research question.⁶³ The primary research question's focus on business organisations requires 'appropriate' organisations to be identified that will enable the question to be answered. Further it should be noted that there was hope on the part of the researcher that the question could be answered positively,⁶⁴ i.e. organisations that have a paradigm view that is sustaincentric or ecocentric (Gladwin, et al., 1995) could be identified. Given this and as per the indications from the studies by Andersson and Bateman (2000), Egri and Herman (2000) and Dunlap and Van Liere (2008) that individuals who joined an environmental organisation generally supported an environmental paradigm and Shrivastava's (1995a) claim that "ecocentric companies have their commitments to nature clearly articulated in mission statements" (Shrivastava, 1995a: 131).⁶⁵ The view was taken that

⁶³ Do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)?

⁶⁴ In this regard an element of researcher bias has been brought into the study.

⁶⁵ This claim by Shrivastava (1995a) is also supported to a certain degree by Whittington (1993) who draws upon Cyert and March (1963) to claim that "organisations are coalitions of cognitively biased...individuals" (Whittington, 1993:112). The term 'cognitively biased' is important as it indicates that organisations are populated by individuals who think in a certain way and by extension have a certain

organisations which have the environment or sustainability at the core of their purpose as evidenced by their mission statements or equivalent would be likely to provide a positive answer to the question. Consequently to identify a sample of research subjects to approach the mission statements of organisations were used as purposive notions that would lead to potential sources of data (Katz & Kahn, 1966). However, at the same time there was awareness on the part of the researcher that as with any other organisational report or statement the mission statement may well idealise and distort the essential functioning of the organisation and not be supported by all organisational members (Katz & Kahn, 1966).

Prior to identifying a list of organisations to approach, over the course of a year a long list of potential organisations that might be suitable for inclusion in the study was formulated. In a similar manner to Brych, et al., (2007)⁶⁶ this list of organisations was identified from those known to the researcher, referrals from colleagues, articles in the media, academic papers and searches on the Internet. This list consisted of a total of 69 organisations. However, it should be noted that this list was a list of organisation names where for each organisation the researcher had some brief understanding of each organisation's area of operation, from the context or brief descriptor provided in the referral source. Consequently, this long list had yet to be researched and reviewed through the systematic gathering of data on each organisation and the identifying of their mission statements. The process of researching and filtering this long list to identify the sample of organisations to approach is discussed in the following chapter (chapter four).

Having identified a list of organisations that could potentially be interviewed, a concern that arises from the primary research question is who from the organisations should be interviewed in the organisations in order to identify an organisation's paradigm adherence. To identify the paradigm of an organisation, i.e. the paradigm held by an organisation's members, a self evident process would be to interview all of the members of a particular organisation. However, similarly to Brych, et al., (2007) the purpose of the research was to identify a range of views across distinct organisations rather than define the representativeness of each and every view

set of assumptions and thus adhere to a particular paradigm. Thus an organisation is likely to populate its mission statement in a manner that reflects this cognitive bias.

⁶⁶ Brych, et al., (2007) identified their sample from listing organisations known to them, a Google search (limited to New Zealand) and the media.

within a focal organisation. To identify the paradigm of an organisation the literature points towards a focus on the senior executives of an organisation. For example, Plaza-Ubeda, et al., (2007) highlight, citing Aragón-Correa, et al., (2004) and Sharma and Ruud (2003) that the senior executives of an organisation determine how the organisation views the environment, its stance and subsequent behaviour. Further Andersson and Bateman (2000) state citing Meima (1994) in support that "the notion of an organisational paradigm can be extended to ...[that of] an organisation's decision makers" (Andersson & Bateman, 2000:553). Moreover, Egri and Herman (2000) posit that a leader's paradigm is representative of those at the organisational level. The view that the leaders of an organisation are critical in defining the paradigm of an organisation is also supported by Morgan (2006) who states that "the fundamental task facing leaders and managers rests in creating appropriate systems of shared meaning" (ibid:147), i.e. creating the paradigm of the organisation. Further support for the view that the values, assumptions and views of the leaders of an organisation are representative of the organisation can be found throughout the management literature in, for example: Bansal and Roth (2000); Carter, et al., (2008); Hanna (1995); Johnson (1996); King and Lenox (2002); Ramus and Steger (2000); Rindova and Fombrun (1999); Sethi (1995); Shafritz and Ott (1992) citing Schein (1985); Sharma (2000) and Siegel (2009). Consequently, as the literature indicates, the views of the leaders of an organisation are a useful heuristic for understanding an organisation's paradigm and as such Katz and Kahn's (1966) statement that an organisation is the "epitome of the purposes of its designer, its leaders or its key members" (ibid:15) is given some credence. Further, as the purpose of this research is to understand whether business organisations can support ecologically and socially sustainable development and if Stead and Stead's (1992) argument that "ecological problems are largely management problems" (ibid:17) is brought forward, a focus upon the leaders of organisations and understanding their paradigm and using those views as being representative of the organisation is appropriate. Likewise if, as Stead and Stead (1992) argue it is the leaders of organisations where "changes in thinking about the relationship between economic activity and ecological sustainability [is] most critical" (ibid:17) this focus is highly appropriate.

A focus upon the leaders of organisations that have environmentally orientated missions does, however, carry with it two notes of concern. The first concern is that

a managerial focus upon organisations is taken, where the views of the leaders are prioritised over other members of the organisation, a unitary as opposed to a pluralistic view (Burrell & Morgan, 1979).⁶⁷ In this regard a managerial focus can create a trap whereby gaining an understanding of whether the organisation is, for example, a psychic prison (Morgan, 2006) is potentially lost. However, while this is a concern for this study, as Burrell and Morgan (1979) outline in their citation of Coser (1956) “no group can be entirely harmonious for it would be devoid of process and structure...[and] conflict as well as cooperation has social functions...[thus] far from being necessarily dysfunctional, a certain degree of conflict is an essential element in group formation and the persistence of [a] group” (Burrell & Morgan, 1979:96 citing Coser, 1956). Consequently, although this research, given its methodological focus, avoids uncovering conflict and obtaining a plurality of views, this is potentially of minor concern as if the argument put forward by Coser (1956) is accepted then harmony and disharmony are inherent in the effective functioning of any organisation.

The second concern is that, as Burrell and Morgan (1979) argue, a managerial focus can underwrite “the dominance of organismic models within the field of organisational theory” (ibid: 220). As stated previously in this chapter and previously in chapter two, an explicit choice of metaphor with regard to organisational theory has not been applied to this research, prior to interviewing and analysing the results, lest in Burrell and Morgan’s (1979) words “rough justice” (ibid:68) be applied to the research subjects. Therefore although Burrell and Morgan (1979) argue that a managerial focus underwrites organismic models and by extension organism metaphors for open systems theory, this is not the intention of this study. Rather the managerial focus that is explicit via the method of interviewing organisational leaders is only taken as it is a method fit for the purpose of the study as opposed to an attempt to underwrite a dominant organismic model or metaphor.

⁶⁷ Where a unitary view emphasises that all organisational members are united, conflict in the organisation is rare and the role of power is largely ignored. Conversely a pluralist view sees an organisation as a loose coalition of individuals who have little interest in the goals of the organisation, conflict is inherent and understanding the power dynamics in the organisation is a key variable. See Appendix 3, Table A3.1 for disclosure of the components of the unitary and pluralist views as offered by Burrell and Morgan (1979).

3.4 Research Questions to Semi-Structured Interview Guide

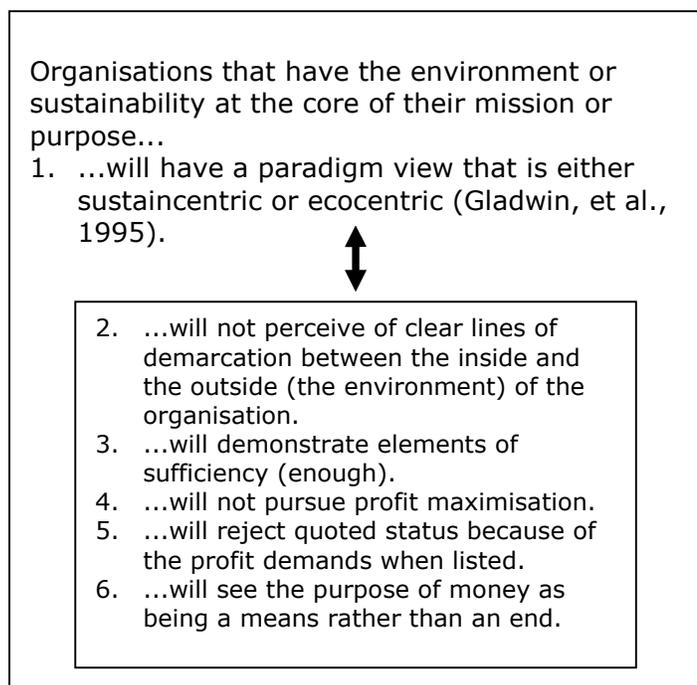
Having outlined the major components of the research design, the final section of this chapter addresses the translation of the research questions into a semi-structured interview guide. As the target sample of this study are organisations that have the environment or sustainability at the core of their purpose, this allows the research questions to be translated into hypotheses,⁶⁸ as highlighted in Figure 3.6.

These hypotheses informed the development of the semi-structured interview guide, in that they provide a start point for a process of exploration, via the use of supporting questions, within the interview context. For example, with regard to profit maximisation, supporting questions that were investigated included:

- Is profit maximisation purposely avoided? If so, why?
- What are the criteria for deciding on the level of profit to be attained?
- Are these criteria codified into business processes?

Aside from the questions that arise from the hypotheses and or research questions, other questions also arise from the broader literature that informs this study and were incorporated into the interview guide. Such questions include:

Figure 3.6: Research Hypotheses



⁶⁸ A hypothesis can be defined as “a proposition or set of propositions put forward for empirical testing” (Abercrombie, et al., 2000:168).

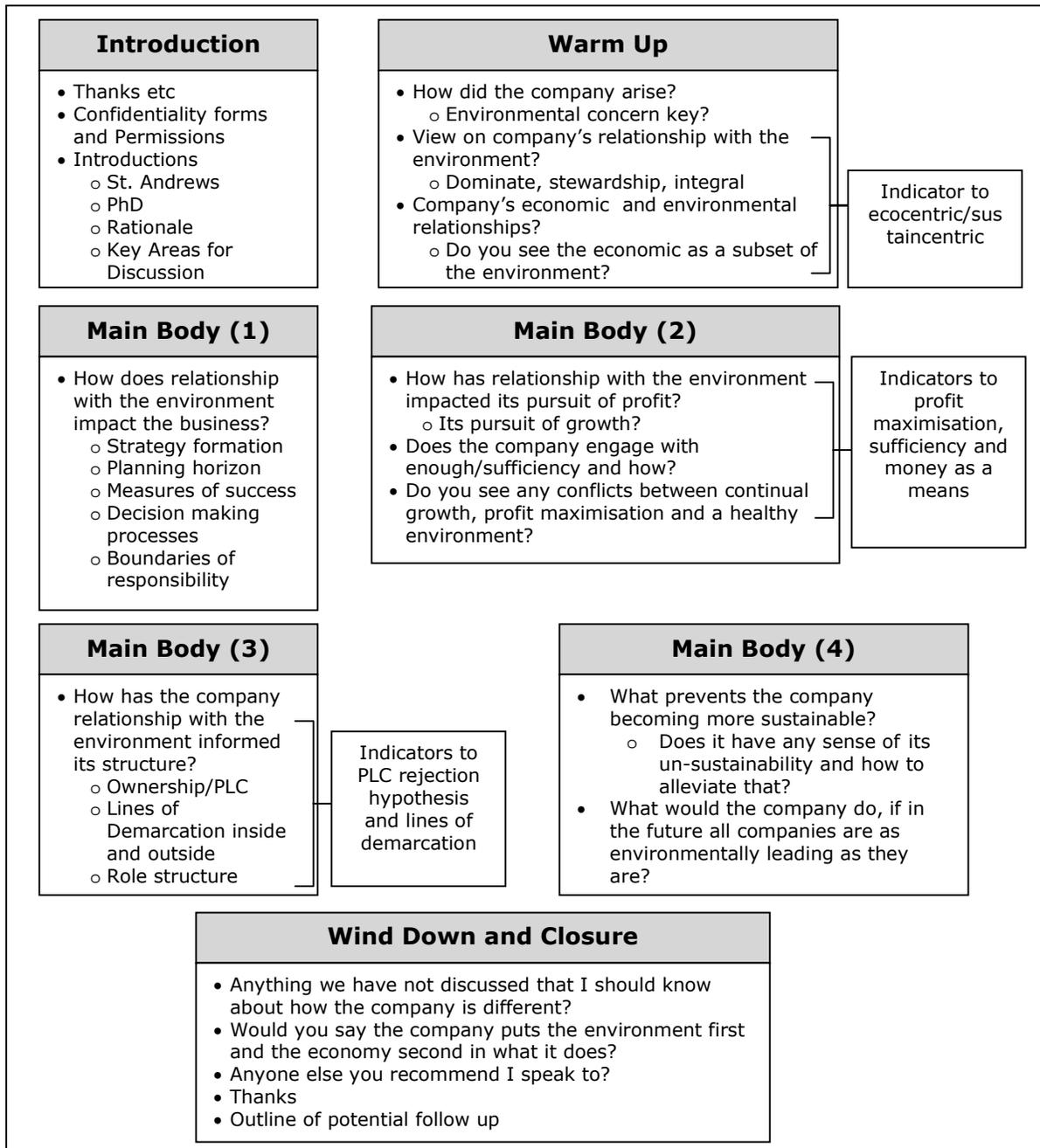
- What does the organisation do differently, relative to a 'conventional organisation' because of its mission or central purpose?
- Does the organisation take longer term views on its operations that are more akin to generational timelines?⁶⁹
- What prevents the organisation becoming more sustainable?
- What would the organisation do if, in the future, all organisations offer the same types of products and services via similar modes of operation?

An overview of the semi-structured interview guide is shown in Figure 3.7 with a complete outline of the guide being available in Appendix 3,⁷⁰ Table A3.2.

⁶⁹ When considering the common definition of sustainable development as offered by The World Commission on Environment and Development (The Brundtland Commission): "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (1987:8), what can be clearly seen within the definition is a time horizon related to generations. A generation can be defined as being a period of "the average length of time in which children become ready to take the place of their parents, usually reckoned at about thirty years" (Oxford Dictionary, 2005:1082).

⁷⁰ Appendix 3 also contains within it reproductions of the briefing, consent and debrief sheets. Furthermore, please note that the interview questions were not sent to the interviewees in advance.

Figure 3.7: Overview of Semi-Structured Interview Guide



Summary

This chapter has highlighted the placement of this study within Burrell and Morgan's (1979) sociological frameworks as well as discussing the research design and in

particular the research sample and the research method (semi-structured interview). Through this discussion several points of learning and development for this researcher with regard to this research study overall were also identified.

The chapter began by describing two frameworks from Burrell and Morgan (1979), the first concerning the subjective-objective dimension and the second the four paradigms for the analysis of social theory. This discussion also briefly highlighted how Burrell and Morgan (1979) outline a distinct domain for the natural and social world and that the paradigm of a study is also the paradigm of a researcher. After outlining the two Burrell and Morgan (1979) frameworks, this study was identified as being realist in its ontology, positivist in its epistemology, deterministic in its view of human nature and nomothetical in its methodology. Further the study is within the functionalist paradigm as it is a study seeking to understand and is thus within a sociology of regulation rather the sociology of radical change.

Having identified where this study sits within the Burrell and Morgan (1979) frameworks, the organisational theory of choice for this study, open systems theory, was discussed more extensively, with a focus on the points brought forward by Burrell and Morgan (1979). This discussion built on the discussion of open systems theory conducted in chapter two but developed it further and covered three areas. First the use of analogy or metaphor when using open systems theory, second how the processual nature of open systems theory can result in abstracted empiricism and third the avoidance of reifying the organisation. The key development from this discussion, other than further support to points originally made in chapter two regarding not applying a metaphor and the avoidance of reifying an organisation, was that this study suffers with an "abstracted form of empiricism" (Burrell & Morgan, 1979:160) because a series of 'snap shot' interviews are not congruent with a processual theory such as open systems theory; albeit this abstracted empiricism is, to a degree, inescapable.

Having more extensively discussed open systems theory, the discussion moved onto research design. Here it was highlighted that the garbage can (Robson, 2002) method of research design was followed, where all the elements involved in designing the research (research purpose, theory, research questions, research method and sample) were moving around the decision space. This discussion also

highlighted how, within hindsight, if open systems theory had been more fully understood earlier and Actor-Network Theory identified earlier, then the research method would have been altered and more likely have included a series of case studies over an expanded period of time, as opposed to just using interviews.

The next area the chapter explored was research method. Here the discussion focused on the methods employed by other management scholars who investigated paradigms highlighting how mixes of semi-structured interviews, questionnaires and case studies have been used. Through this discussion it was highlighted that if this study were to be repeated it would be advisable to use a paradigm questionnaire in support of interviews. Nevertheless the discussion outlined that the use of semi-structured interviews alone was not totally inappropriate for this study given the study's exploratory nature and that paradigms are invariably reflected in discourse. Further, given the exploratory nature of this study, the flexibility inherent in the semi-structured interview method, makes it a useful research tool where the researcher is unclear of all that will emerge from conducting the study in its entirety.

Following the discussion of method, how a long list of organisations to potentially approach was identified, was discussed. This discussion highlighted how there was an assumption of hope within the researcher regarding the sample. As the researcher hoped to identify positive support for the primary research question and identify organisations that were likely to have a paradigm that is either sustaincentric or ecocentric (Gladwin, et al., 1995). Thus organisations that had environmentally orientated missions formed the research sample pool. Through this discussion, the focus on interviewing senior individuals within an organisation was also explained, by highlighting how the notion of organisational paradigm can be extended to that of an organisation's decision makers (for example see; Plaza-Ubeda, et al., 2007) and that it is senior individuals where changes in thinking about economic activities and the environment are most urgently required (Stead & Stead, 1992). Supporting this focus on senior individuals, two notes of caution regarding unitary views of an organisation and the potential underwriting of an organismic metaphor were also discussed. Lastly, to close, the final section of this chapter discussed how the research questions were used to form a semi-structured interview guide.

End Note

Outside of the narrative within this chapter, there are four areas worthy of some consideration in the broader context of this research. These four areas are (1) Burrell and Morgan's (1979) metaphor regarding society being hard and concrete, (2) the rejection of extremes regarding organisations facticity, (3) the right of organisations to exist and (4) the investigation of paradigms given paradigms and paradigm change is commonly linked to crises events (Kuhn, 1996). Rather than discuss these four areas within this chapter, the discussion can be found in Appendix 3, section A3.6.

Chapter 4

Sample and Process of Data Analysis

Introduction

This chapter begins by outlining the process of screening the long list of 69 organisations down to the 31 approached for participation in this study. Following this the 23 organisations that agreed to be interviewed from the 31 approached are described. This description covers certain attributes of the interviews such as interview month, role of interviewee, organisational size (by staff number), ownership of the organisation and organisational name (where permissions allow). After this the process of analysing the interview data is discussed. This is followed by a discussion regarding some of the limitations and considerations of analysing qualitative data such as interviews. Finally the chapter closes with a summary and the drawing of conclusions.

4.1 Reducing 69 Organisations to 31

As discussed in the previous chapter, a long list of 69 organisations⁷¹ which could potentially be approached for inclusion in the study was gathered from a variety of sources over a period of approximately one year. After formulating this long list of organisations, information was gathered on them by referring to their websites and conducting a wider search using Google, an internet search engine. The review of the organisations' websites enabled; mission statements, registered address, names of key executives (in particular the chief executive or equivalent and the chairperson), descriptions of organisational purpose and the general information found on an organisation's website to be gathered. The wider internet search, using the organisation name as a search item, enabled additional information such as commentary from media outlets on the focal organisation or the wider market that the focal organisation operated in to be gathered. In short, the website review and internet search of the organisations allowed the researcher to gain an understanding of each organisation, the market it operated in, its purpose and what if any commentary there was regarding the organisation. Armed with this information, the list of organisations was screened to identify those to approach. As discussed in the previous chapter, the decision was taken to focus on organisations that had the environment or sustainability at the core of their purpose as evidenced by their

⁷¹The long list of 69 organisations can be found in Appendix 4, section A4.1, Table A4.1.

mission statements or statements of purpose. Consequently, the screening consisted of identifying whether the organisations had the environment or sustainability at the core of their purpose and the researcher's assumptions, based on the data gathered at that stage, of whether the organisation might be able to illuminate a research question. This resulted in the filtering out of 38 organisations to approach. Of these 38 organisations, 33 were rejected because there was not enough publicly⁷² available information to enable a judgment on whether an organisation could illuminate a research question and five were rejected because they no longer existed.

Having identified 31 organisations to approach⁷³, the next stage involved writing a letter to the individual identified as being in operational charge of the organisation (such as the managing director, chief executive officer or founder). These letters each contained content specific to the addressee and invited the individual to be involved in the study. However, these letters and points of contact did not involve any of the interviewees receiving the semi-structured interview guide or research questions prior to the interview. The letters were sent during July of 2007 and two weeks after sending the letters, follow up phone calls were conducted. Follow up phone calls were repeated several times and over a period of months 23 organisations agreed to take part in the study. The eight organisations that did not agree to take part cited lack of available time or simply not being interested in the study as reasons for not being involved.

4.2 Overview of the Interviews

The interviews with the 23 organisations that agreed to take part in this study were conducted over a six month period between August 2007 and January 2008 (see Table 4.1 for a monthly breakdown). The interviews lasted between 45 and 90 minutes and none of the interviewees had prior knowledge of the interview guide or research questions prior to the conducting of the interviews. When conducting the

⁷² It is important here not to overstate the importance of the term publicly, as the use of this term is not intended to denote that the researcher held non publicly available information on an organisation that influenced any decisions regarding filtering and screening, that was never the case, the researcher only ever held publicly available information on the organisations to potentially approach.

⁷³ A list of the 31 organisations approached along with the high level notes gathered on each plus the original, prior to interview, researcher view on which questions the organisations could help with can be found in Appendix 4, Section A4.2, Table A4.2.

interviews, the semi-structured interview guide was only used as an aid. In so much as the wording of the questions and their order on the guide was not meticulously adhered to, rather the wording and order of a question would be adjusted to reflect the context of the conversation at the time. For example in an interview, if appropriate, question wording would be altered by adding context and or de-formalising its delivery. Further question order would be altered if, given the conversation at a particular point, it was deemed appropriate to bring a question forward. Furthermore, not all of the questions on the guide were asked in the all of the interviews. This was because during the interviews, in response to one question or during the discussion more generally, the interviewee might also provide an answer a separate question as listed on the interview guide.

Thus rather than risk appearing churlish, the interviewer did not ask every question, however although not every question was asked, invariably every question was answered.

Table 4.1: No. Interviews Conducted by Month

Month	No. Of Interviews Conducted
Aug '07	5
Sep '07	4
Oct '07	8
Nov '07	5
Dec '07	0
Jan '08	1
<i>Total</i>	<i>23</i>

All of the interviews were recorded and transcribed with the exception of one, where permission to record was refused and consequently notes were taken. Fifteen of the interviews were face to face meetings at the organisation's primary premises with the exception of one which was conducted at the Institute of Directors building in London. The remaining eight interviews were conducted via the telephone. Of these telephone interviews three were conducted with individuals based in the USA⁷⁴ and one was conducted with an individual based in Belgium.⁷⁵ The remaining four telephone interviews were conducted via this media to facilitate diary constraints either on the part of the researcher or the interviewee.

At the start of the interviews, permissions were sought regarding (1) the use of an interviewee's given name, (2) the use of the interviewee's role within the organisation, (3) the organisation's name, (4) whether the interview could be recorded and (5) the taking of notes during the interview - an example of the consent form can be found in Appendix 3, section A3.4. Although the consents

⁷⁴ The three USA organisations were seventh GENERATION, TerraCycle and Recycline.

⁷⁵ This organisation was Ecover.

provided by interviewees are perhaps of little material concern to a study, for completeness, two individuals did not allow the use of their given name. Five individuals did not allow the use of their role within the organisation and five did not allow the use of the organisation name. Also as previously mentioned only one interview could not be recorded and all interviewees allowed the taking of notes. Although in practice notes were not taken during the interviews because of active listening on the part of the interviewer (an aspect discussed further in section 4.4.1 below).

4.3 Profile of Participating Organisations/Individuals

An overview of the organisations that took part in the study along with a high level description of their area of operation is provided in Table 4.2. By referring to this table and Table 4.3 below it is seen that one of the organisations interviewed is a

Table 4.2: Organisations Interviewed

Organisation Name/Code	Organisation Name/Code
1. Pillars of Hercules (Organic food producer and retailer)	2. TerraCycle (Producer of plant fertilisers from waste)
3. biome lifestyle (Online retailer of home wares)	4. Company A (Producer of Fast Moving Consumer Goods)
5. Beyond Skin (Online retailer of shoes)	6. howies (Producer/Retailer of clothes)
7. Company B (Producer and retailer of business and consumer services)	8. Green Stationery Company (Producer/Retailer of consumer and business Stationery)
9. Recycline (Producer and Retailer of Consumer Durables)	10. revolve (Producer/Retailer of consumer and business stationery and gifts)
11. Green Building Store (Producer/retailer of Building Goods/Services)	12. Terra Plana (Producer/Retailer of shoes)
13. seventh GENERATION (Producer of Business and Consumer Cleaning Products)	14. By Nature (Online retailer of natural products and services)
15. Ecover (Producer of Business and Consumer Cleaning Products)	16. Belu (Producer of bottled water)
17. Company C (Producer/Retailer of Business and Consumer Cleaning Products)	18. Company D (Producer/Retailer of Financial Products)
19. People Tree (Producer of Clothes)	20. BioRegional (Sustainability focused charity and creator of spin-off companies)
21. Triodos Bank (Financial Services to Businesses and Consumers)	22. Suma (Producer/Wholesales of Food)
23. Company E (Producer/retailer of wood products)	

charity. The charity interviewed is BioRegional and it develops environmental technologies, products and services that it ultimately spins out as separate for profit organisations.

Table 4.3: Broad Ownership Categories

Broad Ownership Categories	Count
Private (Limited)	17
Partially or Wholly Own Subsidiary of Quoted Company	3
Co-Operative	1
Mutual	1
Charity	1
<i>Total</i>	<i>23</i>

Hence, although it might be unexpected that a charity forms part of the research sample, BioRegional was included as it was thought that they would have a perspective upon the demands placed on environmental organisations and their genesis that would be useful to incorporate into the study. By referring to Table 4.3 it can also be seen that three organisations are a partially or wholly owned by or a subsidiary of a quoted parent.

The partially or wholly owned subsidiary of a quoted company ownership status is pertinent to the research question focused upon rejecting (or not) quoted status (research question five). It was and is intentional to have some organisations in the sample that are partially or wholly owned by a quoted parent. The three organisations that agreed to take part in the study that fit this criteria are; Company A, howies and Ecover. These three organisations all started out as private companies and were

subsequently taken over by or received significant investment from a quoted parent company in exchange for an ownership share. The perspectives of these three organisations are of

Table 4.4: Broad Staff Numbers

Staff Number Categories	Count
1-10	6
10-50	11
50-100	3
100-200	3
<i>Total</i>	<i>23</i>

interest as they provide a useful reflection point relative to the non quoted organisations' answers regarding quoted status, as well as, along with BioRegional, adding a breadth of views into this exploratory study.

As well as variations in ownership structure, the organisations interviewed were also of varying sizes regarding staff numbers and turnover. As is seen in Table 4.4 the organisations varied in terms of staff numbers, with the majority (seventeen) having

less than 50 employees. With regard to monetary turnover this information is not freely available for many of the organisations. However, to provide some understanding of this characteristic, at the time of the interviews, one organisation had a turnover that was c£60m per annum, five had a turnover in the tens of millions of pounds per annum, eleven had a turnover in the order of single digit millions and six had a turnover of less than a million pounds per annum.

The roles of the individuals interviewed are outlined in Table 4.5. As is seen the interviews

Table 4.5: Roles Interviewed

Role	Number
Founder/Co-Founder	14
Managing Director/CEO	3
Executive Director - Operations	1
Commercial/Marketing/General Manager	3
Member/Co-worker	2
Director of Corporate Consciousness /Concept Manager	2
<i>Total</i>	<i>25</i>

were with senior individuals in the organisations. This was a desired outcome given that, as explained in chapter three, senior individuals' views can be argued to be representative of their organisations. All of the founders interviewed were in operational control of their organisations and many had a title of managing director or chief executive. However this has not been captured separately in Table 4.5 and founders have only been counted once. Thus the three managing directors and or chief executive officers interviewed operate in those roles for the organisations they work for but they are not the founders of those organisations.⁷⁶ It is also seen in Table 4.5 that a total of 25 individuals were interviewed. This is because at two of the interviews two individuals were present. One interview had two co-founders present and the other had a founder and co-worker present. Also of note regarding Table 4.5 is that one individual interviewed had the title of 'Director of Corporate Consciousness.' This is an unusual organisational role in any context. The individual with this role explained it is as being one where their purpose is to ensure that the organisation not only remains true to its principles but also develops new modes of thinking. Specifically, the individual mentioned a desire for the organisation to move away from linear thinking. This role is grouped with the concept manager, as the

⁷⁶ The role of 'member' is used for the individual interviewed who represented the co-operative. The co-operative did not recognise formal titles, hence 'member' was agreed with the interviewee as being appropriate nomenclature.

individual that had this role explained their role in their organisation in a similar manner.⁷⁷

As is commensurate with the exploratory aspect to this study, the interview sample as a whole is relatively broad in terms of ownership structure and size. Further as per the targeting, senior individuals were interviewed. It is perhaps self-evident that this sample is not representative of a broader population, as it contains beneath it purposeful assumptions on behalf of the researcher regarding whether the organisation could inform the research questions. As such the generalizability of the findings beyond the confines of the sample is limited, in so much as not all organisations with an environmental orientated mission could be assumed to produce similar results. Nevertheless, the organisations interviewed do operate within a capitalist economy and the results do offer a broader commentary on the range of operating maxims that are viable in such an economy, than might be offered in conventional business texts (Collison, 2003).

Prior to outlining the process of analysing the interview data a question worthy of consideration is: why limit the sample to 23 organisations? After conducting 23 interviews via discussion it was concluded that data saturation had been reached, a point reinforced by the interview conducted in January, where it became clear that little further could be gained from conducting interviews at that stage and the time was right to begin analysis.

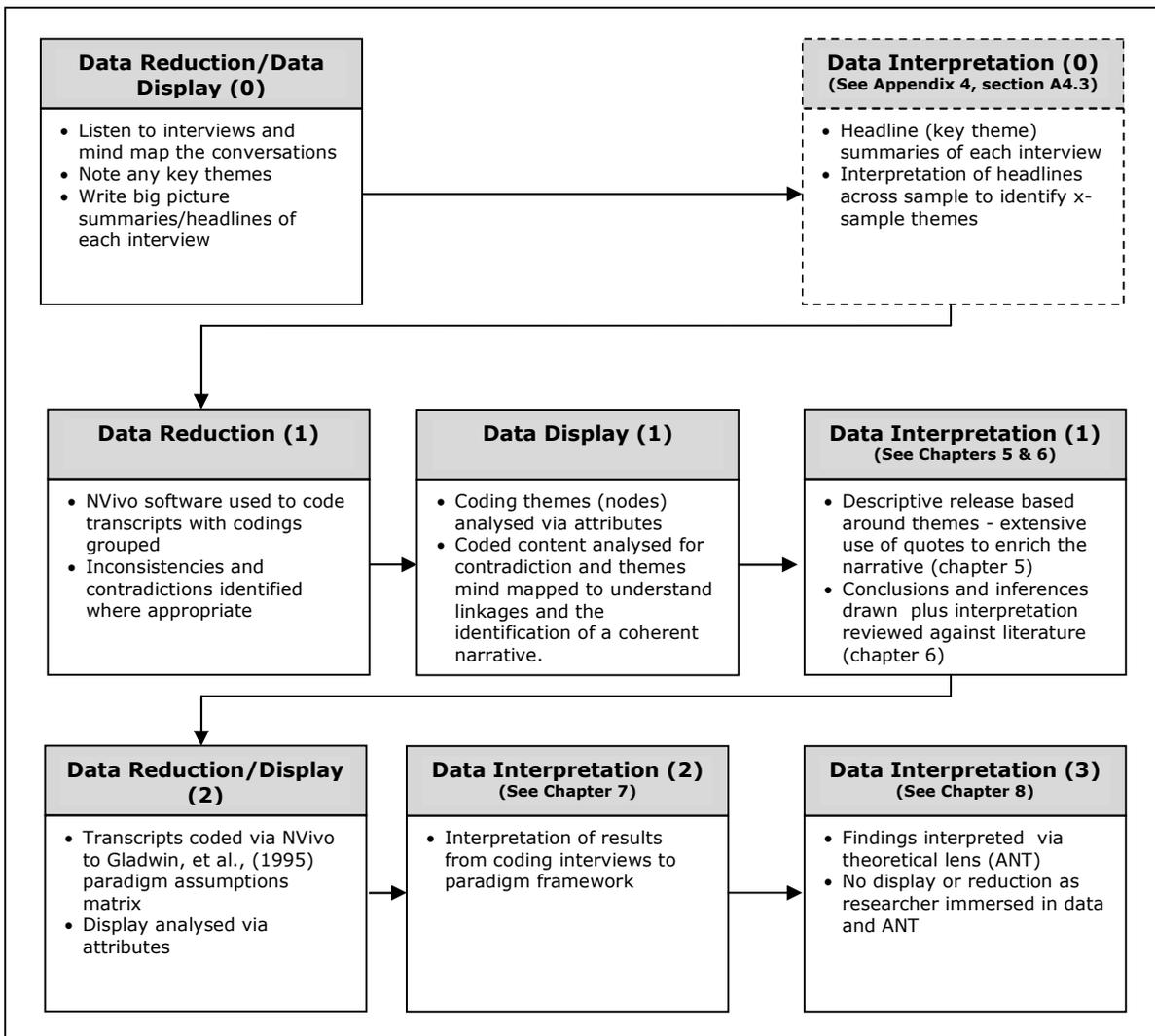
⁷⁷ One other attribute of the sample not highlighted is the split between male and female interviewees. In total five of the interviewees were female.

4.4 The Process of Analysing the Interviews

The process of analysing the interviews is outlined in Figure 4.1. This process draws primarily from that offered by O'Dwyer (2004), but also Spence (2005).

O'Dwyer's (2004) process was formulated during his PhD where he conducted an interview based⁷⁸ study with executives from 27 organisations; with one of the aims

Figure 4.1: Interview Data Analysis Process
(Adapted from O'Dwyer, 2004 and Spence, 2005)



of his study being to "discover what was in and on" (ibid:392) the minds of the executives interviewed. In this regard the broad context of O'Dwyer's (2004) study is similar to this one, making his process, again broadly speaking, applicable to this

⁷⁸ Spence 2005 also used semi-structured interviews as a research method.

study. That aside, O'Dwyer's (2004) original process contains multiple data reductions (three in total) and multiple data interpretations⁷⁹ (five in total). O'Dwyer (2004) states that the rationale behind what he describes as a "laborious and at times tedious" (ibid:405) process was an insecurity on his part, where he felt he had to convince himself of the thoroughness of his approach to interpreting his data before he could commence convincing others. For similar reasons the process outlined in Figure 4.1 contains multiple reductions (three in total) and multiple interpretations (four in total). Outside of a rationale based on researcher insecurity, the attempt with the data analysis process is, as was the case with O'Dwyer (2004), to conduct a process that attempts to be "systematic and reflective" (ibid:406, as a process of analysis that is systematic is necessary for qualitative research where the burden of inference falls upon the researcher and any resultant findings represent a "perspective rather than any form of absolute truth" (O'Dwyer, 2004:404).

The processes of analysis involved simple content analysis, a template approach and an editing or immersion approach (as per Crabtree & Miller's, 1992 typology cited in Robson, 2002:457).⁸⁰ With regard to the data interpretations offered in Figure 4.1, data interpretation 0 results from a simple content analysis and data interpretation 1 from a template approach to data analysis. Data interpretation 2 is a mix of template and editing/immersion as it relies on both coding text but also trying to marry that coding process to the paradigm schema offered by Gladwin, et al., (1995). Finally data interpretation 3 relies on an editing/immersion approach as it tries to marry the data to the theoretical constructs within Actor-Network Theory. The different sub processes are explained in more detail below. These explanations are relatively brief in order to provide the reader with an overview of the process as a whole. As is seen in Figure 4.1 each set of sub-processes realises different data interpretations, further there are some peculiarities to each process in order to

⁷⁹ As per O'Dwyer (2004) "Huberman and Miles (1994) suggest that qualitative data analysis embraces three linked sub processes: data reduction, data display and conclusion drawing/verification (data interpretation)" (O'Dwyer, 2004:393), where data reduction aims to identify key themes and patterns from the evidence and then this data is visually displayed (data display). Data interpretation constitutes attempts to interpret the reduced data sets that emanate from the data reduction and display phases.

⁸⁰ Robson (2002) outlines that the Crabtree and Miller (1992) typology involves four methods of analysis: (1) quasi-statistical which involves the use of computer software to do something akin to word counts or simple content analysis; (2) template which involves the coding of data to form template bins and then analysing data to see how it fits to these bins; (3) editing which involves interpretation and reflection by the researcher to elucidate meaning and (4) immersion which is essentially the researcher's impression based upon their intuition and creativity.

realise a particular interpretation. Particular peculiarities will be discussed in the chapter that contains the interpretation.

4.4.1 Data Reduction/Display (0) & Data Interpretation (0)

Data reduction/data display (0) enabled data interpretation (0) an initial release of findings compiled for an interim report. At the core of this interpretation were headline summaries from the interviews (these summaries can be found in Appendix 4, section A4.3). This initial process of analysis on the data was conducted three months after the last interview had been completed in January 2008. Aside from the time constraints arising from other demands, the purpose of doing this analysis after an extended period of time was to enable this researcher to approach the analysis in what the researcher perceived to be a more objective manner. This process involved listening⁸¹ to the interviews and mapping the conversations. Consequently the process of data reduction was also the process of data display and as such these two steps are intimately linked (as highlighted by the composite heading 'data reduction/data display 0' in Figure 4.1). This compression of reduction and display into effectively one sub-process should not be unexpected given that Huberman and Miles (1994) as cited by O'Dwyer (2004) describe all three sub-processes of data reduction, display and reduction as being linked and entwined.

After mapping each of the interviews the data was interpreted into headline summaries for each interview, where the headline summaries are bulleted lists of what struck the researcher as being the key points made by the interviewee during the interview. These headline summaries⁸² allowed the researcher to begin the process of understanding the data and in effect provided a staging post from which to begin the more involved content analysis in the next process of analysis data reduction, display and interpretation. This initial analysis also supported two other purposes. First it allowed interviewees to receive a report on the findings from the research in a timelier manner than would have been the case had they waited for the output from data interpretation (1). Second it allowed the data to be shared with

⁸¹ With the exception of one interview where permission to record was refused and thus interview notes were used.

⁸² The headline summaries from each interview can be found in Appendix 4, section A4.3.1

colleagues in a concise format and in this manner it proved a valuable tool for receiving feedback.

Two aspects of data reduction/data display (0) that other researchers might have expected to have been conducted, especially if referring to O'Dwyer (2004) or Spence's (2005) process of analysis is that notes were not taken during the interviews⁸³ and reflections were not recorded after each interview. The decision not to take notes or record reflections was purposeful on the part of the researcher. The rationale for not taking notes during interviews arose from the simple reason that this researcher was unable to do more than two things at the same time, ie; take notes, concentrate on interviewee responses and use the interview guide. Consequently because the interviews were recorded, this researcher concentrated on listening to the interviewees' responses and asking questions, relying on the recording device to capture the discussion. Turning to the non recording of reflections post conducting an interview, these were not recorded because of the deficiencies of humans as analysts and our ability to overly rely on first impressions and resist subsequent revision (Robson, 2002).⁸⁴ Awareness of this resulted in this researcher coming to the opinion that reflections being recorded post an interview was not appropriate. As these reflections were, in effect, being taken while the interview content was still being digested and emotions were still charged from the excitement of conducting an interview and having held an interesting discussion. Having taken the decision not to record reflections immediately post interview and given the interviews were being conducted at a relatively rapid rate, the decision was taken not to record any reflections after completing an interview. Consequently, when beginning data analysis, three months after completing the last interview, the researcher assumed that this analysis would be conducted in a more objective manner. However, with hindsight, the decision not to take reflections immediately post the interviews would ideally be reversed and for future research projects, immediate post interview notes (reflections) would be taken. The reason for this change is because, upon further consideration, immediate reflections are a valuable source of data. Furthermore, even if the reflections taken are subsequently discarded because the researcher is concerned with the deficiencies of the human as an analyst

⁸³ Self evidently the one interview where permission to record was refused necessitated the taking of notes.

⁸⁴ The deficiencies of humans as analysts are discussed later in this chapter (section 4.5.1).

and that the reflections were taken while emotions were still charged, the reflections are a useful source of data that can do little but enhance the analysis process.

4.4.2 Data Reduction, Data Display & Data Interpretation (1)

The sub-processes of data reduction and data display (1) resulted in data interpretation (1), an interpretation that makes extensive use of interviewee quotations in order to enrich the narrative. This interpretation is based around core themes and can be found in the following chapter (chapter five), with the subsequent discussion of this interpretation being found in chapter six.⁸⁵

The sub-process data reduction (1) involved coding transcripts of the interviews. As discussed previously, with the exception of one interview, the interviews were recorded. These recordings were transcribed resulting in over 700 pages of text. The coding of the transcripts (data reduction 1) was conducted using a software tool (NVivo). As O'Dwyer (2004) indicates, researchers have mixed views regarding the use of a software tool for coding interviews. A software tool was used in this study because it automates an otherwise manual process. Further there was no concern with the use of software on the part of this researcher, partly because of the newness of the researcher to this type of analysis but also because as O'Dwyer (2004) makes clear, software "is merely a tool designed to assist analysis" (ibid:395). Furthermore, software cannot do the thinking or draw the conclusions for a researcher it is "the individual researcher who has stored and interpreted many of the contextual factors that will influence the inferences drawn from the analysis" (O'Dwyer, 2004: 395).

The process of coding is a systematic method of reviewing and categorising references from transcripts. For this study the process involved perhaps self evidently, reviewing each transcript, identifying pertinent⁸⁶ text (references) and then categorising (coding) that text under different themes.⁸⁷ The themes identified

⁸⁵ The reason for this split is because the descriptive release of findings is c15k words long and thus the length of a reasonable chapter in and of itself.

⁸⁶ The use of the term pertinent is telling in this context. The term is being used to indicate that the researcher attempted to identify text that was relevant and that helped to elucidate the interviewees' points of view, no matter whether or not the reference contradicted a previous reference from the same interview or other interviews.

⁸⁷ In the language of the NVivo software tool these different categories are called nodes.

were informed both from the sub-processes involved in realising data interpretation (0), but also from reviewing the transcript text. In total the process of reviewing and coding the transcripts was conducted three times.

After conducting the coding process a total of 52 themes were identified with 16 of these being major themes and the balance being minor themes (themes underneath a major theme). The major themes had coded text from a minimum of five interviews (sources), a maximum of 23 interviews and an average of 15.⁸⁸ That each theme did not contain text from all the interviews is testament to the semi-structured nature of the interviews and the flexibility of this method, where not all of the interviewees were asked all of the questions depending upon the context of a particular interview. Out of the 52 themes in total an interview had text coded to a minimum of 14 themes, a maximum of 28 and an average of 19. The total number of references coded from the transcripts was 894. However as a reference could inform more than one theme there is some double counting in this figure. Furthermore, on average each transcript had six percent of its text coded, figure that may appear low. However it reflects the nature of conversations, where much of a discussion is filled with linking phrases and re-iterations as opposed to quotable phrases.

Having coded the transcripts, the next sub-process was to display the coded data, data display (1). This display involved two stages, the first was to analyse the themes against the seven interview attributes that were captured⁸⁹ and the second was to review the coded text and map it to identify linkages and themes that would allow the development of a coherent narrative for data interpretation (1). The first stage reviewing the categorised text against the interview attributes was done via the use of matrices and percentage charts. The matrices were used to facilitate a visual review of the themes against interviewee organisation and whether there were any particular patterns. The percentage charts were used to help identify whether any particular theme appeared to be biased towards one particular attribute, for example are the majority of quotes under a particular theme from female interviewees or from a disproportionate number of female interviewees relative to

⁸⁸ Each interview had text coded to a minimum of six and a maximum of fourteen major themes with the average being ten.

⁸⁹ The seven attributes are: interviewee gender, organisational size, month of interview, broad area of organisational operations, role of interviewee, whether the interview was face to face or not and the ownership structure of the organisation.

male interviewees. Ultimately this analysis revealed little, however examples of it can be found in Appendix five.

The second stage of analysis involved in data display (1) was the mapping of the themes key messages in order to identify a coherent narrative for data interpretation (1). This was a necessary step because although text can be coded to themes, a collection of themes still requires weaving into a coherent narrative for the reader. A further sub-process within this stage was the identification of contradictions and divergent messages within the references under a particular theme. After completing the data reduction and data display, data interpretation (1) was written. This interpretation is a "thick description" (O'Dwyer, 2004:402) of the interview findings and forms the body of chapter five. It uses the themes identified from the coding and makes "extensive use of direct quotations from the transcripts in order to enrich the narrative" (O'Dwyer, 2004:402). Discussion of these findings, the conclusions and inferences drawn from them and how these findings are reflected in the literature also form part of this interpretation and can be found in chapter six.

4.4.3 Data Reduction, Data Display & Data Interpretation (2)

As discussed above, data interpretation (1) conveys a narrative of the interviews and particular findings. Although that analysis realised findings that illuminated the research questions, in particular research questions two through six, the primary research question still remained unanswered, in the researcher's opinion.⁹⁰ To answer this question the interviews were coded against the constituent assumptions in the Gladwin, et al., (1995) paradigm scheme. This paradigm scheme contains 90 assumptions with 30 assumptions each under technocentrism, sustaincentrism and ecocentrism (see Appendix 2, table A2.6). Data interpretation (2) involved inputting each of 90 assumptions into the software tool as themes and then reviewing the transcripts and identifying text that was congruent with a particular theme/assumption.⁹¹ A key difficulty with this process was that Gladwin, et al., (1995) do not provide a specific definition for each of their constituent assumptions.

⁹⁰ Do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)?"

⁹¹ This process of coding interview transcripts to constituent assumptions within a paradigm schema appears to be unique among those studies that explored or discussed environmental studies and used semi-structured interviews as a research method. For example; Brych, et al., (2007) and Halme (1996), offer no discussion of how they inferred their interviewee responses were aligned to particular paradigms.

As such there was and is a degree of researcher inference in bringing the paradigm schema to the interview data and vice versa.

Once this process was complete for all of the transcripts, individual interviews and the sample as a whole could be assessed as to whether the majority of their coded text fitted with technocentric, sustaincentric or ecocentric assumptions. This process of coding realised a data display of paradigm tables/matrices for each interview and the interview sample as a whole which was then analysed against interview attributes. After conducting this analysis data interpretation (2) was written, this interpretation along with discussion and conclusions can be found in chapter seven.

4.4.4 Data Interpretation (3)

Data interpretation (3) involved the use of a theoretical lens Actor-Network Theory (ANT) to conduct further investigations into the interview data. As per O'Dwyer's (2004) use of the 'managerial capture' theme, ANT was used to make "further sense" (ibid:403) of the data. ANT will be discussed in chapter eight where the data interpretation using ANT can be found. However, by way of a brief overview, ANT is a theory that can be described as "associology" (Latour, 2005:9). This is because it is a theory of associations between the human and the non-human. Specifically if a thing (human or otherwise) has an effect, ie acts, upon another thing, then there is an association, and both things are included in the frame of analysis. In this manner ANT opens up the sociological analytical field to include the non-human as actors. ANT therefore is a theory that fits well with the core of this research because environmental paradigms are constituted by assumptions of how humans relate to the environment (the non-human).⁹² In bringing humans and non-humans into the analytical frame, it is important to note that ANT is not about imposing symmetry between humans and non-humans, or endowing the non human with ethical or moral

⁹² However it is not a theory that necessarily sits well with the research method used in this study. ANT draws from ethnographic studies (for example; Latour, 2005) thus it implies a researcher gains more intimate knowledge of their research subject than can be achieved from conducting a series of semi-structured interviews. It is worth noting that O'Dwyer (2004) outlines that his managerial capture lens was known implicitly prior to conducting his interviews, but not chosen explicitly until after the data was gathered. Similarly for this study, the inclusion of the non-human in the theoretical frame was known implicitly prior to conducting the interviews. However ANT and its constructs was not known about or understood explicitly until after the interview data was gathered.

agency (Law, 1992). Rather ANT is about not imposing asymmetry and in so doing aims to highlight how the human and non-human are intermeshed.

A difficulty of using ANT is that it does not have particular theoretical frameworks through which data can be passed, although it does have some conceptual notions such as “centres of calculation” (Cuganesan 2008 citing Latour, 1987). Thus ANT asks the researcher to focus on describing work, movement, flow and relational fields (Latour, 2005). In this regard ANT is almost akin to a way of seeing where there is a focus upon the minutiae of what is occurring in an association. Interpreting the data using ANT involved this type of focus to identify relational fields. The ANT analysis in this study focused upon interpreting the interview findings from across the sample as opposed to a detailed exposition of each interview transcript. Thus the ANT analysis could be simplistically understood as being applied to the findings that constitute data interpretation (1).

4.5 Limitations and Considerations regarding the Analysis of Interviews

As O’Dwyer (2004) highlights, qualitative research has a “strong craft-like element” (ibid: 391) where “the burden of inference falls on the researcher as opposed to a statistical methodology which crunches inputs into outputs thereby effectively absolving the researcher of errors in inference” (ibid:391). In this regard qualitative research brings forward issues regarding the researcher’s subjectivity and relative objectivity. These issues can be captured within considerations regarding; (1) the deficiencies of the human as an analyst, (2) how the researcher co-creates the data (the interview) with the interviewee, (3) the holistic nature of conversations and the analysis of the text of conversations and (4) generalising the findings. These four areas will now be discussed.

4.5.1 Deficiencies of the Human as an Analyst

Although it is unlikely to be a definitive list, the deficiencies of the human as an analyst have been captured by Robson (2002) and are listed in Figure 4.2. As can be seen in Figure 4.2, these deficiencies primarily serve as warnings to the researcher, in effect asking the researcher to continually question their own prejudices during analysis. During the analysis of the data these deficiencies were guarded against by being referred to by this researcher and appeared most demonstrably, as discussed previously, in the non recording of first impressions as well as, as per O'Dwyer (2004), a thorough process of data analysis in order to convince the researcher of the findings prior to being confident of convincing others.

Figure 4.2: Deficiencies of the Human as an Analyst
(Source: Robson 2002:460 who adapted the list from Sadler, 1981:27-30)

- Data Overload – Limitations on the amount of data that can be dealt with (too much to receive, process and remember)
- First Impressions – Early input makes a large impression so that subsequent revision is resisted
- Information availability – Information which is difficult to get hold of gets less attention than that which is easier to obtain.
- Positive Instances – There is a tendency to ignore information conflicting with hypotheses already held, and to emphasize information that confirms them.
- Internal Consistency – There is a tendency to discount the novel and unusual.
- Uneven Reliability – The fact that some sources are more reliable than others tends to be ignored.
- Missing Information – Something for which information is incomplete tends to be devalued.
- Revision of Hypotheses – There is a tendency either to over or to under react to new information.
- Fictional Base – The tendency to compare with a base or average when no base data is available.
- Confidence in Judgement – Excessive confidence is rested in one's judgement once it is made.
- Co-Occurrence – Co-occurrence tends to be interpreted as strong evidence for correlation.
- Inconsistency – Repeated evaluations of the same data tend to differ.

4.5.2 Co-creating the Data

In a semi-structured interview, an interviewer is an outsider co-creating the field of enquiry with the interviewee which raises two limitations worthy of consideration. The first consideration concerns the position of the researcher as an outsider or more specifically an academic outsider. The interviewees in this study were clearly aware of the status of the interviewer and this status undoubtedly raised in the interviewees' minds particular perceptions. These perceptions undoubtedly impact the communication, as per the simple model of communication offered by, for example, Jobber and Fahy (2006). In this regard the data obtained is specific to interviews conducted by an academic researcher in the context of this study.

Further it is possible that a different outsider, ie a consultant or analyst, armed with the same questions might have elicited different responses. Thus the data gathered and the interpretations offered are not only a perspective, driven by the researcher, but the data gathered is influenced by the interviewees' perceptions of the researcher during the interviews. Thus, perhaps self evidently, this study's findings are a perspective rather than an absolute truth (O'Dwyer, 2004).

The second consideration concerns the co-creation of the field of enquiry. In asking questions the interviewer creates the territory for responses, even though the interviewee may adjust that territory in their response. This is similar to conceptualisations of wicked problems where a solution is related to the definition of the question (Mason & Mitroff, 2004), or as Clegg, et al., (2004) put it when discussing the SWOT analysis tool, "SWOT analysis...divides the world into four realms [and thus]...the world comes to be perceived as...compromising four fields" (Clegg, et al., 2004:27). The co-creation of the field of enquiry closes down possibilities and the notion that a perspective rather than absolute truth is drawn out in an interview is again reinforced.⁹³

4.5.3 Holistic Nature of Conversations and the Analysis of the Text of Conversations

Clegg, et al., (2004) argue that a sentence is not just the sum of its component words: word order and grammar matter and sentences are only fully understood in their entirety. The nature of semi-structured interviews is that both the interviewee and the interviewer have room to create the topic of discussion. As such the content of an interview is layered and the components are not necessarily

Figure 4.3: Habermas's Four Factors to Understanding the Meaning of an Utterance
(Source: Finlayson, 2005:38)

1. The recognition of its literal meaning
2. The assessment by the hearer of the speaker's intention
3. Knowledge of the reasons which could be adduced to justify the utterance and its content
4. Acceptance of those reasons and hence of the appropriateness of the utterance

⁹³ Another limitation of peripheral importance is that interviews are limited by the constraints of language (Deleuze & Guattari, 2007).

discrete and separate. In analysing interview transcripts and coding particular references to themes, a process of atomisation is occurring on something that is whole and in so doing it is likely that some meaning is lost. While this process is appropriate for relaying the essence of interviews and while the researcher may attempt to ameliorate any loss by constructing appropriate narrative around the references that are drawn from the transcripts, there can be little doubt that there is the possibility for a loss or leakage of meaning as references are taken from their context and placed into a new context. While any losses may be ameliorated by the researcher, what comes to the fore is that when faced with this same data another researcher may make different interpretations and thus the relative versus absolute truth argument regarding the findings is reinforced.

Building upon the above, when considering conversations and the understanding of a particular utterance there is also a need to understand tone of voice and body language in order that a more complete understanding of the utterance can be realised. To emphasise this it is worth considering Habermas's theory regarding the different factors that impact the understanding of the meaning of an utterance (see Figure 4.3). Clearly to an outside researcher all of this non verbal and non-literal communication and understanding is lost and even though a researcher may attempt to ameliorate for this loss in their description of the findings again the potential for some leakage is clearly there.

4.5.4 Generalising the Findings

The generalising of findings can be split into internal and external generalizability (Robson, 2002). Internal generalizability refers to generalizability within the bounds of a study and external generalizability looks beyond the specifics of the study to a wider population. The internal generalizability of the findings from this study raises few concerns. However the external generalizability does raise two points of caution. The first point is likely to be self evident and it relates to the interview sample. As previously stated, the interview sample was purposively selected and is not a representative sample of a wider population of organisations with environmentally orientated missions. Consequently the generalizability of the findings beyond the confines of the sample is limited, in so much as not all organisations with an

environmental orientated mission could be assumed to produce similar results. Nevertheless, the organisations interviewed do operate within a capitalist economy and the results do offer a broader commentary on the range of operating maxims that are viable in such an economy, than might be offered in, for example, conventional business texts (Collison, 2003).

The second point of caution pertains to the quantification of the qualitative interview data that occurred by analysing the references collated under a theme against interviewee attributes and the subsequent presentation of some of this data alongside data interpretation (1) in chapter five. As discussed previously, analysing the themes against interview attributes was conducted to identify patterns and anomalies such as: Of the companies coded to a particular node what percentage had a particular type of ownership structure? Answering this type of question in turn moves the qualitative data of the interviews into a quantitative space where findings such as; X% of the female interviewees said this versus Y% of the male interviewees, could be brought forward. The concern with this type of quantification is that while informative within the bounds of the study, the use of quantitative results, or in effect numbers, can inflate validity and transportability. This issue was raised by Cummings (2005), who argues that numbers can be given an inarguable objectivity relative to phrases. Thus in offering some quantitative findings in data interpretation (1), it is important that the reader does not inflate the validity of these numbers and give them an unarguable objectivity that results in them spilling out of the confines of this study and being used as externally generalisable findings. This is especially important as the coding process upon which these quantitative findings are built is ultimately subjective.⁹⁴

Summary

Although relatively short, this chapter attempted to move through a number of areas. First how a long list of 69 potential organisations was screened to 31

⁹⁴ Given this note of caution the reader may well ask (1) why bother analysing the themes against interview attributes? And (2) why bother presenting any of this quantitative data in data interpretation (1)? The answer to the first question is twofold. First the functionality to conduct this type of analysis is available on the software tool and hence it is analysis that is relatively easily conducted. Second this type of analysis helps to ameliorate researcher insecurity and further develops a researcher's understanding of the data. The answer to the second question is that some interesting observations did arise and they are worthy of cursory consideration as they help provide context and greater depth of understanding.

organisations to approach and the subsequent 23 organisations that agreed to take part. Second to provide an overview of the interview process highlighting in what month and year the interviews took place and how many were conducted face to face versus over the telephone. Third to provide a profile of the sample and the individuals interviewed outlining where permissions allow company name, individual role, organisations' areas of operations and ownership status to name a few. Fourth the process of analysing the interview data, a process that draws upon O'Dwyer (2004) and fifth and finally some limitations and considerations regarding the analysis of interviews.

In moving through these different areas, a number of points and key messages were brought forward. One of the first was that researcher judgment, based upon the available information regarding an organisation was involved in screening 69 potential organisations down to 31 to approach. Thus as in the previous chapter, another example was brought forward of how the research sample for this study is not without some bias. Turning to the second area, the process of conducting the interviews, another researcher limitation was brought forward. This one highlighted an inability on the part of the researcher to actively listen to the interviewees, use the interview guide and take notes at the same time, thus note taking during the interviews was not conducted.

With regard to the interview sample, the third area covered in this chapter, the discussion outlined how the interviews were with senior individuals and that the sample covered a broad range of ownership categories (for example; private, cooperative and subsidiary of a quoted parent company), staff size and annual turnover, and that this range is consistent with the exploratory context of this study. Following the exposition of the sample, the majority of the chapter, the fourth area, was focused upon the process of data analysis and interpretation the content of which is the basis of the following chapters (five, six, seven and eight). The explanation of this process outlined how the analysis involved multiple iterations which included simple content, template and immersion sub-processes. Where the drive for multiple iterations was a desire on the part of the researcher to be systematic and reflective and ensure that as per O'Dwyer (2004), the researcher was convinced of the findings, prior to trying to convince others. The final and fifth area of the chapter explored limitations regarding the analysis of interviews. This area

discussed not only that analysts need to be cognisant of the deficiencies of the human as an analyst (Robson, 2002), it also highlighted that due to the co-creation of data in a semi structured interview and the holistic nature of conversations some meaning can potentially be lost when interviews are analysed and that ultimately, the findings represent a “perspective rather than any form of absolute truth” (O’Dwyer, 2004:404). This area also highlighted that because of some sampling bias on the part of the researcher, the findings of this study are limited, in so much as not all organisations with an environmental orientated mission could be assumed to produce similar results. Nevertheless, the organisations interviewed do operate within a capitalist economy and the results do offer a broader commentary on the range of operating maxims that are viable in such an economy.

To close this chapter, the following quote by Bateson (2002) hopefully helps to illustrate some of the key messages of this chapter particularly those pertaining to the limitations of analysing interviews and how individuals can perhaps never escape their own subjectivity;

“When somebody steps on my toe, what I experience is, not his stepping on my toe, but my image of his stepping on my toe reconstructed from neural reports reaching my brain somewhat after his foot has landed on mine. Experience of the exterior is always mediated by particular sense organs and neural pathways. To that extent, objects are my creation, and my experience of them is subjective, not objective”
(Bateson, 2002:28)

Chapter 5

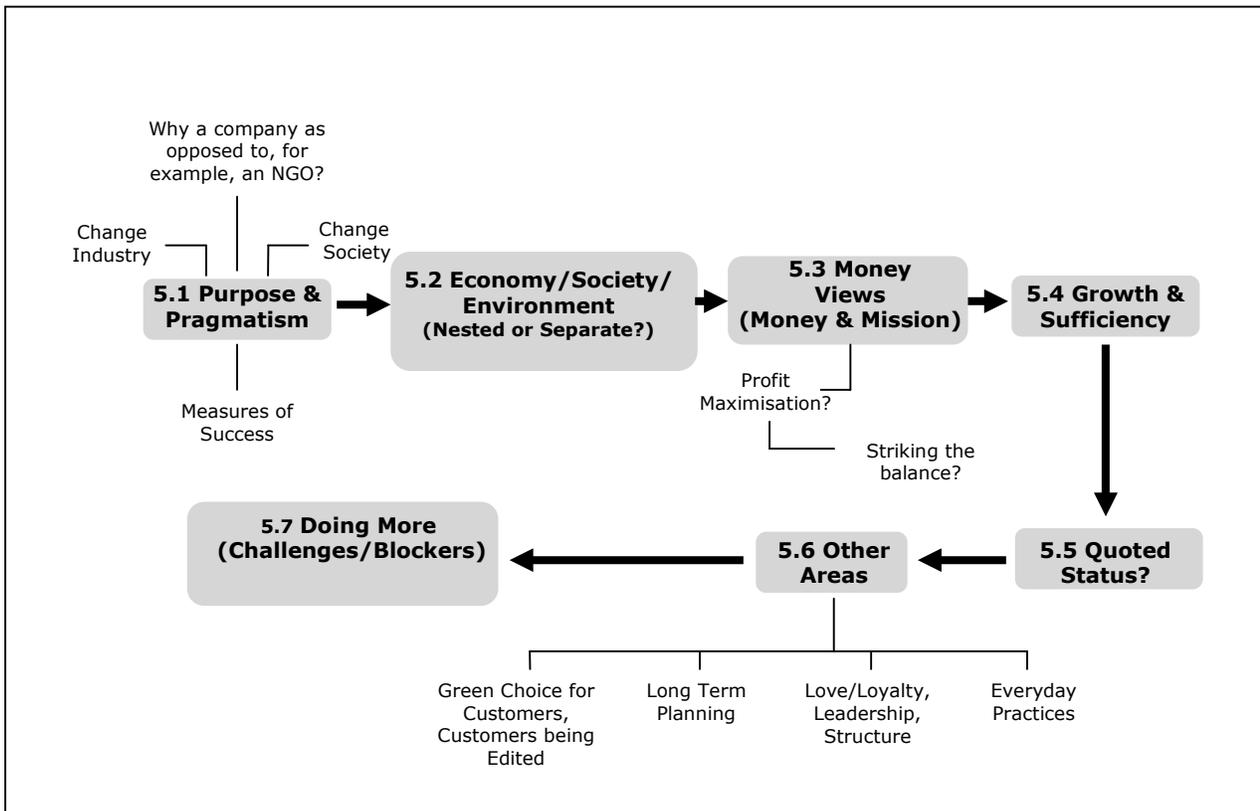
Data Interpretation (1) Descriptive Release

Introduction

This chapter comprises data interpretation (1), a descriptive release of findings based around the themes formed from coding the interview transcripts. In this chapter the interpretation makes extensive use of quotes and offers minimal discussion beyond the narrative that arises from the quotes. In doing this, the attempt is to allow the reader to 'hear' the interviewees' narratives. The discussion of these narratives and the implications that arise from them that would in effect complete data interpretation (1) can be found in the next chapter, chapter six. This separation to different chapters may appear unusual to the reader. The rationale is simply to enable manageable chapter lengths for the reader, as per Phillips and Pugh's (2001) advice that a chapter should be approximately ten to twelve thousand words in length. In addition, there is an ancillary benefit to this split, in that it allows the reader to read the interviewees' narratives without the interruption of overt researcher interpretation framing their stories.

The narrative flow for this chapter is outlined in Figure 5.1. As is evident this flow steps away from the six research questions at the core of this study. This movement was necessary in order to create a coherent narrative. In following Figure 5.1 from top left, the first section (5.1 – purpose and pragmatism) relates interviewees' views on what they are trying to achieve with their organisations (the purpose). This first section also explores why the interviewees started a company to realise the purpose as opposed to for example; a non-governmental organisation. The next section (5.2) discloses how the interviewees perceive of the relationship between the environment, society and the economy, in particular whether interviewees see the environment, society and economy as connected, in some manner, or not. Following this, sections 5.3, 5.4 and 5.5 disclose the interviewees' views on money, profit maximisation, growth and sufficiency and quoted status respectively. These sections relate closely to the research questions covering those same topics. Section 5.6 discloses other areas that emerged from the interviews such as interviewees' views on engendering staff loyalty and their love for their work. The final section, 5.7, captures the interviewees' views on the key challenges they believe they face in order for their organisations to become sustainable.

Figure 5.1: Narrative Flow of Findings (Data Interpretation 1)



After following the narrative flow highlighted in Figure 5.1, the key messages are summarised, prior to the discussion and implications that arise from these messages being pursued in chapter six.

Finally, prior to disclosing the findings, the reader should also note that alongside some of the narrative in this chapter, some 'Interesting Asides' can also be found. These 'Interesting Asides' arise from the analysis that was conducted on the coding themes against interview attributes. Although much of this attribute analysis, as previously mentioned in chapter four, did not result in points of interest, some of it did. The results that are of interest and at best can be viewed as ancillary insights which enrich the overall narrative are titled 'Interesting Asides' in this chapter. However, because of the subjectivity involved in qualitative analysis they should be read just as they are titled 'Interesting Asides' as opposed to points of significance for the study, with their ultimate use perhaps being as potential points of investigation via future research studies.

5.1 Purpose & Pragmatism

In discussing the purpose of their organisations, the interviewees' stated purposes that are ambitious. The ambitions include a desire for their organisation to reverse previous environmental damage as well as not being seen as part of the problem (with regard to operating in an environmentally damaging manner). For example:

"In the late 1800s/early 1900s we did a lot of harm unto the Earth, and we sort of look at that and say our, our goal here is for our set of products to reverse that. So not just to do no harm, but how can we reverse some of the things that have been done" (Recycline, Jon Lively, Operations Director)

"It wasn't so much as an environmental thing, it was just kind of oh well, you know, we want to do it and not add to the problem" (howies,⁹⁵ Dave Hieatt, Co-founder)

5.1.1 Change Industry

The interviewees also express a desire to change the industry in which they operate, where they see their organisations as pioneers or exemplars of change. For example:

"What we are trying to do with the company is show that we can be far more adventurous with organisations and helping the planet. There is a ripple effect, we have to encourage their focus on their environmental footprint and even beyond the sector we are doing that, with others it's just a matter of time before they change" (belu, Reed Paget, Founder)⁹⁶

"I think in some ways we've developed it actually [referring to the sector they operate in] , and I guess one of our roles is to develop it and show that it's credible and that might encourage others to move in there" (Triodos Bank, Charles Middleton, Managing Director)

⁹⁵ Please note that the name of the company (howies) is spelt with a lower case 'h'. The interviewee asked the researcher to ensure this spelling was followed as from his perspective using a lower case 'h' as opposed to a capital 'H' demonstrates greater humility.

⁹⁶ This interview was not recorded, hence this quote represents the researcher's attempt at capturing the exact quote from the interviewee in note form during the conducting of the interview.

"We're just sort of breaking the mould of what normal stationers do, it's a critical market, and if we can show people that it works and that there is a market out there for it then I think it might encourage more of them to do it." (Green Stationery Company, Jay Risebridger, Founder)

"I want to create this brand and show that fashion ethics can emerge"... "I mean it's started happening, at my factory in England there are already two new shoe brands doing Vintage Recycled, that's only happened in the last six months, we've paved the way for that" (Beyond Skin, Natalie Dean, Founder)

5.1.2 Change Society

In some instances interviewees express a desire that their organisation enables change by changing consumer perceptions of the environment, thus realising some form of social change. In this regard, the interviewees believe that their products serve as point of curiosity about the environment or a physical everyday reminder that the environment is important in some way. For example:

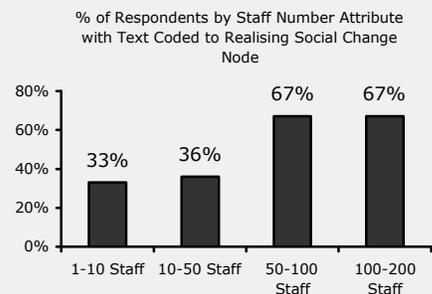
"I mean a recycled content toothbrush doesn't really keep that much plastic out of landfill, a toothbrush is pretty small, but there's a consciousness of someone buying and using this toothbrush every day, it's wow, every day you're using this recycled toothbrush and it's just this reminder of, hey the environment's important" (Recycline, Jon Lively, Operations Director)

"half the power, I think, of our product, is just getting the public to think about the way they purchase things in a different fashion" (TerraCycle, Jon Beyer, Co-founder)

[talking about what a customer might do after having bought their product] "[they] might start getting interested in the background, why do these bloody guys do this? And one by one she's becoming light green and after a while she's expanding her

Interesting Aside 1 – Social Change

Ten interviewees have transcript text coded to the theme of realising social change. As the chart below attempts to highlight the larger organisations appear more prone to have narrative linked to social change. This may illustrate that the larger an organisation the more viable, from the interviewee's perspective, it is to realise social change.



By absolute numbers this chart indicates that 2 out of the 6 organisations with 1-10 staff had text coded to realising social change. Similarly 4 out of the 11 with 10-50 staff, 2 out of 3 with 50-100 staff category and 2 out of the 3 with 100-200 staff, had text coded to this theme.

attention to other things. She might think about, well what's this stuff I have in the food? Especially in the UK you have these brightly coloured jellies everywhere, she might think well this doesn't seem to be cut from a tree so what's in it?" (Ecover, Peter Malaise, Concept Manager)

While some interviewees wanted to change industry and/or society they also recognize that they have to be viable in the world as it is, rather than as it could be or how they may want it to be. In an economic system, these organisations would cease to operate unless they had continued access to cash. Consequently, these organisations face a requirement to make enough money to operate (a pragmatic challenge). This can create a tension between their missions and financial requirements where their missions and the generation of cash can work in opposite directions. For these organisations, and in some contexts, there may not be the need for trade off. This tension and the various gradations within it will be more fully explored in section 5.3 (views on money). At this stage, however, it is enough to highlight that the interviewees are aware of the tension and operate according to a general principle of being financially pragmatic to ensure they can buy their freedom to operate and pursue their mission. Only one interviewee, as highlighted in the quote below, offers an example of how the mission of the organisation was refocused because of financial concerns:

"[We] couldn't sell social justice as a product⁹⁷ and so [had] used the environment as a way of reaching towards social justice" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

A shift towards the environment because it can be sold whereas social is more difficult to sell was not explored in the interviews. However it should be noted that some of the interviewed organisations pursue social aims within the realm of their operations, such as; fair trade sourcing⁹⁸ and the creation or use of co-operatives⁹⁹ to supply through to local manufacturing,¹⁰⁰ areas that will be explored more fully in sections 5.6 and 5.7.

⁹⁷ The interviewee explained how the organisation had been set up to realise social justice, but had instead refocused on selling environmentally friendly cleaning products as this enabled financial viability.

⁹⁸ For example: By Nature, Company A, People Tree.

⁹⁹ For example: biome lifestyle, Company A, People Tree.

¹⁰⁰ For example: Beyond Skin, revolve.

5.1.3 Measures of Success

While the interviewees are financially pragmatic, money is not necessarily the measure of success for them. Although not all of the interviewees were asked about their measures of success (due to the flow of semi-structured interviews and other contextual factors), responses from those asked range from the indirect influence they hope their organisation will have, such as:

"if that only sparked one bit of encouragement to one of your students who went on and achieved greater success, then great" (howies, Dave Heatt, Co-founder)

"that would be a measure of success, that would be one way to say, we've done our job because we, as a catalyst we'll have caused the change that made us redundant as it were"¹⁰¹ (Company B, Dale Vince)

"if we packed up tomorrow it would have been a success, because we did something different, we have had an effect in the world ...success is also getting the message out there"(Green Building Store, Bill Butcher, Co-founder)

Through to measures more closely linked to the particular company's purpose:

"one of our priorities is to create employment and so hand weaving is really to preserve hand skills. So one of our high priorities is to do more hand woven fabric ... we do a social review every couple of years looking at how we're rated by our suppliers, we have a big evaluation of what's gone on and what we've achieved, and what's been achieved socially. It's not one in number crunching terms, except in terms of increase of business [and] more livelihoods created" (People Tree, Deborah Isaacs, General Manager)

"we don't really measure ourselves in terms of turnover, except to say that in order to continue to operate successfully, we need to calculate wages as a percentage of our total sale. So we look at, at the cost of our people to the business, what we need to do to fund that cost to the business."(Suma Wholefoods, Andrew Mackintosh, member)

¹⁰¹ In this instance the interviewee is highlighting how if climate change was tackled, their wider purpose and point of difference would no longer be required and in effect the company's purpose would be redundant.

While notions of success beyond money indicate the aspirations of these interviewees, it is also important to them that they are successful in a conventional financial sense as well. By demonstrating financial success, they perceive that it is more easily demonstrable that there is another way to conduct business. As Dave Hieatt, co-founder of howies puts it:

"we want to show that there is another way to do business. So it's really important that we find [that way and] we're successful because nobody copies failure" (howies, Dave Hieatt, Co-founder)

5.1.4 Why A Company as opposed to a Non-Governmental Organisation (NGO)?

Trying to do business in another way is self evidently more difficult than following a tried and tested pattern. However it is perhaps a requirement of a business that it tries to do something different and realise a differential advantage lest it have no unique selling proposition. Nevertheless, the question arises of why the interviewees have chosen to pursue change via a business based entity as opposed to an NGO¹⁰² type vehicle? In response to this question, the interviewees' answers vary with some noting that:

"I set up a company rather than a charity [because] I think it's a better model, I think I can get more done, and as part of that it requires the employment of people and the engagement with other people" (Company B, Dale Vince)

"the things that were making a difference seemed to be business, they had these opportunities to make a real difference, as opposed to the Government organisations and the non-profit" (Recycline, Jon Lively, Operations Director)

For others the organisation is a tool that creates money which is then used to realise change:

¹⁰² An exact definition of an NGO is contested (Gray, et al., 2006), however NGOs have been "variously described as autonomous, non-profit-making, self governing and campaigning organisations with a focus on the well-being of others" (Gray, et al., 2006: 324). Further they have also been characterised as organisations "whose stated purpose is the promotion of "whose stated purpose is the promotion of environmental and/or social goals rather than the achievement or protection of economic power in the market place or political power through the electoral process" (Gray, et al., 2006:324 citation Bendell, 2000:16).

"we're not an NGO, we're not a campaigning organisation in a pure sense, some of what we do fits into those areas. But essentially, we are a bank that is using money, if you like, as the tool to deliver on social and environmental change" (Triodos Bank, Charles Middleton, Managing Director)

While others, again, outline that operating a business is congruent with their assessment of who they are as individuals and what they believe they can do to realise change:

"we're looking at this and thinking that there's a real transformation now of green going on. We feel that as individuals we're doing it and, and then when you couple that with a real interest in greening for everything people are doing, we thought well shoot, let's just bite off what we can chew, we are good marketers, very good product developers, and that's how we focus" (Recycline, Jon Lively, Operations Director)

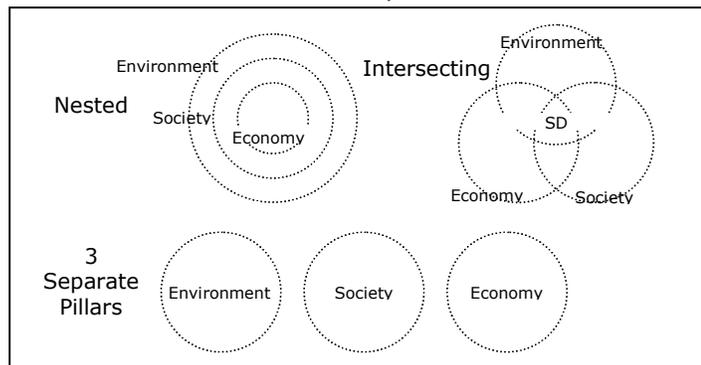
Views from the one charity interviewed support a view that the organisational form chosen is one that fits with interviewees' assessments of who they are as individuals and what is pragmatic and viable for them:

"the model is very much, we want to do some new things and developing new things takes time and money and we don't have any money but we had some time, so we applied for grants, and if you want to get grants you're better off being a charity" (BioRegional, Sue Riddlestone, Co-founder)

5.2 Economy/Society/Environment – Nested or Separate?

When considering the relationship between the economy, society and environment, an individual can take a view that society and the economy are nested within the environment or that the economy, society and the

Figure 5.2: Economic/Society/Environment – Nested or Separate?



environment are three separate areas that may or may not need to overlap in to realise sustainable development. The nested view can be likened to strong sustainability¹⁰³ and by extension, as Brych, et al., (2007) argues, to ecocentrism. While the three separate areas view can be likened to weak sustainability or by extension, again as per Brych, et al., (2007), to technocentrism. The interviewees were asked their views on how they conceptualised the relationship between the environment, society and the economy as an indicator¹⁰⁴ towards the primary research question.¹⁰⁵

Some of the interviewees see the relationship between the environment, society and the economy as being three separate areas:

"Triodos has come from and what its mission and ethos is,[has] always been based on the triple bottom line, the social, environmental and economic drivers it's always been very clear from the very outset that those are the three pillars on which it's built" (Triodos Bank, Charles Middleton, Managing Director)

"Sustainable business does have three platforms to it and environmental sustainability's one and looking at social issues is another and being economically viable is another" (By Nature, Graham Randles, Co-founder)

In contrast, other interviewees outline how they think the importance of the environmental and social pillars will increase through time, relative to the current importance of economic considerations:

"I think, again, in the next twenty years, if this gets serious , there will be a re-balancing of these two [referring to social and environmental pillars and their increasing importance relative to the economy]" (Company A)

"the mindset will change over the next decade to cheap doesn't equal great, it means that's not so great." (Beyond Skin, Natalie Dean, Founder)

¹⁰³ Also see Milne, et al., (2006) or Bebbington and Thomson (1996), for a discussion on strong sustainability.

¹⁰⁴ As indicated in the semi-structured interview guide, Appendix 3, section A3.2, table 2, question 3

¹⁰⁵ Do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)?

While a sizeable number of interviewees (nine),¹⁰⁶ moved the terms of the discussion away from the consideration of the three separate pillars by outlining how any distinction is artificial and a different view needs to be taken:

"I don't see a distinction, economic, social and the environmental, yeah it seems artificial to me. It's not real" (Company B, Dale Vince)

"I don't think you can separate the social and the ecological aspect ... it's the whole again, I hate to say it, but the holistic view of what we do, how we do it and where we do it." (Suma, Andrew Mackintosh, member)

"we really need to look at environment in a very holistic kind of framework. It's not just the air and the water, it's the humanity and the animals and it's nature, it's sort of non-nature, I mean, really the environment encompasses a lot more than the way we frame it" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

Building upon this, some interviewees highlight how in their view humanity fundamentally relies upon the environment.

"[we are] umbilically attached to it. Umbilically attached from birth, you see we're a product of the land" (Company E, Eoin Cox, Founder)

"our business has to understand that it's going to take from it to be able to be a business .. and somehow, it's not easy, we've got to find a way that it kind of works with the planet rather than just taking from it" (howies, Dave Hieatt, Co-founder)

This emphasis on a more entwined and holistic relationship with the environment is in contrast to the relationship that two interviewees perceived non-environmentally orientated businesses may have. To summarise, they suggest that for other organisations the environment is just "another category they need to deal with" (Company D, Paul Ellis), whereas for them (and by extension the types of organisations interviewed) the environment is part of their "DNA rather than just bolted on" (Green building Store, Chris Herring, Co-founder).

¹⁰⁶ Of these nine, eight organisations are privately held and one is a co-operative.

5.3 Money Views (Money and Mission)

The interviewees' views on money can be summed up in their own words, where because "economic rules have infected everything in society, nothing can be done without money" (Ecover, Peter Malaise, Concept Manager). Therefore the interviewees' organisations pursue the "art of combining the mission and the values with the reality of [doing] this with people in a business world and [having to] succeed in commercial terms" (Company C, interviewee). However, as indicated previously in the context of measures of success, money is not an arbiter of success rather it's a means, as opposed to an end in itself. For example:

"[The] purpose is not to make money. Full stop. Our purpose is to make money so that we can spend the money on what we believe in, which is bringing about the change in our case to the way electricity is made. So money for us is, is not the end, it, it comes before the end, it's the means to the end" (Company B, Dale Vince)

"[To be] able to put back something, which we believe that we're doing, into the world, we still have to survive, we still have to have that money there to give us the flexibility of being able to carry on putting things back" (revolve)

"we are a business using the tools of business to solve social and environmental problems...basically we are using trade not just to make money but to derive money and to push that towards the environment – basically use the resources not just for the financial community to exploit but for other worthwhile areas as well"(belu, Reed Paget, Founder)

There is a tension in the above quotes of ensuring financial viability in the face of environmental standards. As one interviewee states; if the organisations "don't have the business success [they] can't do the other stuff" (Company C, interviewee). This tension arises from the balance that the organisations try to 'walk' between money and pursuit of mission:

"it's taking steps as we become more profitable to become more environmental" (Recycline, Jon Lively, Operations Director)

"As we make more we reinvest some of that profit back into other woodland restoration work ... and I'll only put it into woodland restoration, I will not put it into administrative time" (Company E, Eoin Cox, Founder)

"The money you can't take it with you we wouldn't be here if it wasn't economically viable but we wouldn't be here if it wasn't environmentally making some sense to us, we'd walk away" (Green Building Store, Chris Herring, Co-founder)

"[we would] fail before we decide to just become another company" (TerraCycle, Jon Beyer, Co-founder)

Although there is a balance, only two of the interviewees (both working for organisations that are either a subsidiary of, or partly owned by a quoted parent organisation) highlight that at times economic decisions are the priority:

"if we had our backs to the wall I think the economy would come first" (Company A)

[Referring to the CEO] "when things are really coming under tension, he will take decisions which are based on conventional economical rules" (Ecover, Peter Malaise, Concept manager)

Outside of the two quotes above, the interviewees also highlight that the degree of balance between the pursuit of mission and financial requirements varies. Where some interviewees indicate that the mission clearly comes before financial considerations, for example:

"The business case of that turbine didn't exist, it just didn't, but we built it anyway because we really believed in it and it worked and it actually changed the way people looked at wind turbines" (Company B, Dale Vince)

"When we've eventually followed our beliefs, we've done much better out of the business and, initially when we introduced organic cotton, we pretty much lost most of our wholesale accounts because they weren't prepared to sell a howies t-shirt for £27 which then, at the time, was kind of a bit of a disaster but it kind of led to us doing a catalogue, because if they weren't going to sell our stuff, we had to find another way to do it and perhaps the moral of the story is actually when you do follow your heart, what's proven to be is that the business followed too" (howies, Dave Hiatt, Co-founder)

Other interviewees are more circumspect and less absolute in their views, highlighting how they believe that if the pursuit of mission is taken too far, the ability of the organisation to attract customers is also limited with the result that organisation could be too marginal in its appeal and consequently the financial viability of the organisation is potentially impacted. For example:

"if you just sit down and write down every environmental concern that it would be nice to subscribe to and you just do it on a kind of general thinking way, then you're only certainly going to write down something very idealistic that will end up being exactly that, very idealistic and insignificant and therefore actually not achieve very much" (Company C, interviewee)

"you can put your green issues very much up front but if you're running a business you've still got to run it as a business and you've still got [to] sort of aim for your markets and you can't, in a way, be as completely purist as some people might want you to be ... you can't go right out there too far, otherwise you just end up completely limiting yourself" (Green Stationery Company, Jay Risebridger, Founder)

"we're in competition with the other folks that make toothbrushes out there, and if we run ourselves into the ground pursuing every environmental advantage that we think we can gain, we might not be competitive any more" (Recycline, Jon Lively, Operations Director)

"if you've got the fantastic idea and it does the environmental aspect masses of good, if you can't make it work, if you can't make the money .. then it won't work at all" (revolve)

"You cannot put the one before the other. If something absolutely fantastic, fantastically ecological or sustainable cannot be done in a rentable way well then (laughs) you can do what you want but you will never be able to realise it" (Ecover, Peter Malaise, Concept Manager)

"I think it's really critical that we do remain relevant, that we don't sort of slide off into some parallel universe" (Triodos Bank, Charles Middleton, Managing Director)

This balance of money and mission can also be juxtaposed against the views that two interviewees offered regarding what they perceive as being the priorities of finance personnel in their organisations - money. For example:

"I would say [the founder] puts the environment first and finance second and I would say our new financial director puts finance first and the environment second" (Terra Plana, Rosie Budhani)

"I've heard somebody in finance say oh why don't we cut retail off and just focus on wind farms cos they make more money. (laughs) Do you know, I say 'Well, you know, that's not what we're here for, so forget it'" (Company B, Dale Vince)

5.3.1 Profit Maximisation

Outside of the interviewees' perceptions of finance personnel, the balancing act the interviewees say their organisations pursue and their view of money as a means makes it relatively clear that they are not pursuing profit maximisation. A point three interviewees highlight clearly in the quotes below:

"am I holding the company back? In a commercial world, whereby profit is everything .. yes I am" (revolve)

"the absolute maximum profit isn't what counts and nor is, nor is the timeframe" (Company B, Dale Vince)

"The proposition they're offered is not one about maximising shareholder return, that's very clear, it's about investing in a bank that is taking a more sustainable view, i.e. a more long-term view" (Triodos Bank, Charles Middleton, Managing Director)

5.3.2 Striking the Balance

The balance of mission and money also begs the question of how is the balance struck? What decision criteria are used, within the bounds of a particular organisational mission, to prioritise one set of environmental outcomes over another? In response to this area of investigation the interviewees are clear that it is a question of judgment rather than 'hard data'.

"It is a judgment call on any given day with regards to what it is best to do" (belu, Reed Paget, Founder)

"you try to make a judgement about what your consumers expect of you" (Company A, interviewee)

[Discussing the appropriateness of a material and the conflicting information available regarding its sustainability] "I just have to trust my judgements" (Beyond Skin, Natalie Dean, Founder)

"It's a gut feeling" (People Tree, Deborah Isaacs, General Manager)

5.4 Growth and Sufficiency

The interviewees take a view that their growth is desirable, a perhaps not unsurprising result given many are relatively small organisations within their particular markets and their view that their products and services create a better social or environmental outcomes relative to conventional products and services offered by conventional organisations. Thus, a key outcome of enacting their mission is that 'better' products and services displace more environmentally damaging products/services and as a result their organisations' growth is consistent with lower environmental impacts. For example:

"If we believe in organic cotton then let's sell more of it. If we believe in Merino base layers being better than petrochemical ones, let's sell more of them. If we want to be responsible for change, then let's give more money away, not less" (howies, Dave Hieatt, Co-founder)

"We've got to step back and say that, using the toothbrush as an example, we would like every toothbrush sold everywhere to be ours and it's not just from an economic perspective, that's from an environmental perspective. The more toothbrushes we can sell, we think the more good we're doing" (Recycline, Jon Lively, Operations Director)

"Growth is, if you like, a social target as well, if we can place more orders, it's not about profit this end, except we would like to have a profit this end... but it's about

*how much we can place and how much we can sell, so how many people can we help”
(People Tree, Deborah Isaacs, General Manager)*

In moving people onto their organisations’ products and services, interviewees also believed that they are edging out ‘environmental bads’ – a necessary but insufficient step towards ecological sustainability.

“I think I can be absolutely clear, we are taking people from a bad product to a better one. So as we grow we’re taking people from this brown supplier, kind of complacent place, to this, world where they take responsibility for climate change” (Company B, Dale Vince)

“our type of trade is cannibalism” [referring to existing non ‘green’ competitors] “we do not want to sell more and more cleaning products to our customers, we want to sell our cleaning products to more and more people and that’s a different thing” (Ecover, Peter Malaise, Concept Manager)

“we are happy to grow in terms of cannibalising existing business” (belu, Reed Paget, Founder)

While these attitudes towards growth might, as previously stated, be expected, it is also clear that some of the organisations do not pursue growth unthinkingly or that growth is good is an axiom that should never be questioned. They do see the paradox of growth in that:

[Referring to his company] “if we grow then the paradox is that we will become more, more of a problem [referring to environmental burdens]” (howies, Dave Hieatt, Co-founder).

Conundrums about growth also came to fore regarding the desirable size of the organisation:

“Now if you go down the big mass market route, to my mind all your eggs are in one basket and you get to the point whereby you lose sight of what you really should be doing ... What we don’t want is to be able to have a massive workforce whereby we lose control, and sight, of what we want to do” (revolve)

"[Regarding growth] actually been tension over the years on that question...the question is can we hold the culture together, can we still be who we are and not have that sort of dinosaur"¹⁰⁷ (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

"You can argue that it's impossible to retain that sense of integrity as you grow beyond a certain size. I think that's a bit defeatist actually, I think that it's very important that that isn't the case. That organisations like us can grow, can become more powerful and still retain their integrity. But it is something that has to, there has to be a real consciousness about that" (Triodos Bank, Charles Middleton, Managing Director)

The undercurrents suffusing these quotes relate to concerns about maintaining the cultures of the organisations. In order to maintain culture while still growing, two organisations offer alternative models for how they might organise as they grow:

"We even wondered at one point... would we get a point where we actually want to break ourselves up into smaller units just to keep that way of working [referring to their culture] ...if it's a case within the organisation of dropping into regional units in some way and doing it that way, maybe that's how we do it when it comes to it" (Company D, Paul Ellis)

"The bio-mimicry¹⁰⁸ path goes on to one prototype, which was how do you really begin to create maybe a franchise business that could look at ways of building small little factories in a box, where you could raise the product locally (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

5.4.1 Sufficiency

The interviewees' previous statements that highlight the balance of mission and money and not pursuing profit maximisation, also suggest that some notion of sufficiency is practiced. The examples the interviewees offer that demonstrate sufficiency through the application of their mission and principles include 'delisting' suppliers and employing more expensive labelling solutions to name a few:

¹⁰⁷ The term dinosaur here is a metaphor that was used in the discussion to describe large organisations which have bureaucratic cultures and are focused on monetary aims.

¹⁰⁸ Biomimicry is a framework which has at its core the principle of copying nature's design and production methods. For further information see Benyus (1997).

"we 'delisted' a couple of products, even though they were, at that time about £1 million worth of turnover. Our buyer in, actually in what a really rather unprecedented move said 'No that's it, this is ridiculous. Not only should we not be shipping water from [XXXX] any road, the cost both of shifting it and the environmental costs are stupid, but [also] they're a despicable company' ... if we were being short-sighted, if we were looking purely at business costs, then you would have said 'What on earth are you doing? Why would you chop £1 million turnover out of your business?' But the choice for us wasn't that, it was clear ... we always make this joke about karma here as well, you know. The fact that when we dropped XXXX, it just so happened that the idea of local food initiative and food miles came to the fore" (Suma, Andrew Mackintosh, member)

"I mean we used to sell, for some reason, something called yoghurt raisins, which would apparently be healthy but they weren't organic, they're actually full of sugar, but they sold really well, we made a lot of money selling these damn things (laughter) and when we [were] reviewing what we were doing, we said "Well why are we selling these things and why are we selling so many sweets and all this nonsense?" and, the answer came back to me "Well cos, people buy them, we make money Bruce, that's what pays the wages." I said "Well maybe not, maybe we should actually stick to more principles here and actually reduce what we, that stuff." (Pillars of Hercules, Bruce Bennett, Founder)

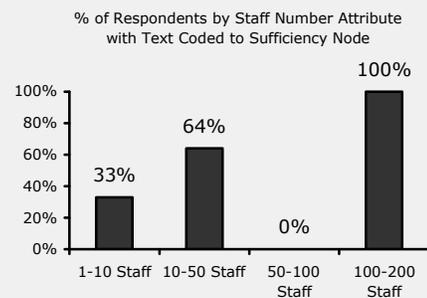
"the recycled plastic label. It's more expensive. When you shrink wrap around the bottle it doesn't shrink wrap quite as cleanly...So that was one trade-off" (TerraCycle, Jon Beyer, Co-founder)

Other examples of applying the notion of sufficiency include not selling adjacent products or being driven by rates of return:

"We have to believe that we're selling insurance because it's actually something that's worth having, and there have been

Interesting Aside 2 - Sufficiency

Twelve organisations had text coded to the theme of sufficiency. As the chart below attempts to demonstrate, relatively, the larger an organisation (with the exception of the 50-100 staff category) the more the likely the interviewee would mention sufficiency. This is a perhaps not unexpected result given a larger organisation is likely to be more financially stable than a smaller one and hence more able to apply notions of sufficiency. However, given the exploratory aspect of this study this result may just be indicative of the particular interviewees and the coding process.



By absolute numbers this chart indicates that 2 out of the 6 organisations with 1-10 staff had text coded to realising social change. Similarly 7 out of the 11 with 10-50 staff, 0 out of the 3 with 50-100 staff category and 3 out of the 3 with 100-200 staff, had text coded to this theme.

occasions in the past where that clearly hasn't been the case and so we haven't got engaged in that which potentially puts us at a competitive disadvantage through not maximising our other income and so on" (Company D, Paul Ellis)

"If we were making an investment decision in a project .. we aren't concerned (laughs) we don't even (laughs) calculate the internal rate return .. we aren't interested. If it pays the bank back, which means we can borrow the money and build it, that's it, that's enough (Company B, Dale Vince)

While these examples of sufficiency may be nothing more than demonstrable examples of adherence to mission and by extension stakeholder expectations they suggest in the light of the previous quotes, a different perspective that is perhaps best summed up in the following quote:

[speaking about his company and contrasting its difference]"You know, that's fundamentally I think a different proposition to your average business that exists to grow its market share, put its competitors out of business and make a lot of money, float, you know, off into the sunset kind of stuff, you know, as a classic model. But I think that way of life is unfulfilling and I think more and more people are seeing that (Company B, Dale Vince)

5.5 Quoted Status? ¹⁰⁹

In general, the interviewees are not positive about quoted status. In response to being asked about their organisations potentially becoming quoted, some of the interviewees discuss alternative ownership models, with two (Pillars of Hercules and seventh GENERATION) stating a desire to move towards a form of greater employee ownership, in order to reward the individuals who built the business. Another interviewee (People Tree) highlights an intention to have a significant proportion of the organisation owned by its suppliers/producers (i.e. the weavers of its clothes, which in this particular case are small co-operative groups of women). Finally,

¹⁰⁹ In the interviews the term plc (publicly limited company) was used and taken as being synonymous with an organisation whose shares are traded by the public on a stock exchange, such as the London stock exchange. However, it is recognised that some plc companies can be privately owned and their shares not be traded on a stock exchange.

another interviewee (belu) stated that it didn't have shareholders in a conventional sense except for the people it supported via its water projects.

Ownership models based on employee, producers or community ownership can be interpreted as a desire to have an ownership that is not based purely on the exchange of money, but an expanded notion of reciprocity. For example:

"if some of your shareholders are your suppliers, then that fits your ethos completely because you're returning some of the profits to them" (People Tree, Deborah Isaacs, General Manager)

"Well I don't just mean money ... if you look at it in terms of sweat and you look at it in terms of all the intellectual investment that would go with that and also the goodwill that would come with that and everything else ... you would get a share certificate based on your sweat, not just necessarily on what came out of your wallet, and that will then tie you in to one policy, vision, philosophy" (Company E, Eoin Cox, Founder)

When asked if their particular organisation would ever become quoted, interviewees are in the main resistant to that idea because of the impact they believe this ownership model would have. Only one interviewee answered with a clear never regarding becoming a quoted company (revolve), whereas others are less absolute but nonetheless critical of the idea. They are critical because of the assumption that quoted status will change the organisations' parameters and move its focus away from the mission towards a demand for short term monetary returns. For example:

"It will never be a PLC....Because it takes away from what we want to achieve, what we feel we want to achieve. I don't want to be forced into doing something which might harm the environmental side, because we're not making enough money" (revolve)

[discussing whether the organisation would become a PLC] " I think it's useful to go back to the Body Shop analogy once that was bought out by L'Oreal, I don't think, [L'Oreal will] maintain those principles within that subsidiary, I think too much of it is lost." (By Nature, Graham Randles, Co-founder)

"There are no free lunches, people don't put money in to your company because they believe in what you do. Oh there are exceptions, I know there are ethical investors

but, you know, floating would get us a bunch of shareholders that wanted to take money out of the company. There would be issues of control, issues of mission and, you know, we wouldn't be the same entity. We'd have a share price to be concerned about, we'd have a city, looking over our shoulder second guessing everything that we're doing, trying to tell us, you know, that, you know, the best way do stuff and a whole bunch of distractions I think from the day job. So, you know, I'm not a big fan of the City or of shareholders or of venture capitalists or people like that, so don't really want any of them getting in the way" (Company B, Dale Vince)

BioRegional, a charity that spins-out organisations from its research base also supports these views. As they highlight in the following quote regarding their discussions with city investors.

"I don't feel that we want to rip anyone off and we just want to be fair. But these people that we're dealing with [city investors] want to make as much money as possible" (BioRegional, Sue Riddlestone, Co-founder)

"I've always been scared of getting into one of these contracts with someone who puts money in or something who then, you know, destroys what we've tried to do" (BioRegional, Sue Riddlestone, Co-founder)

Another of the interviewees highlighted how the company that that the individual works for had been quoted on the stock exchange, but it was, in the interviewee's terms, so bad, the organisation was taken back into private ownership:

"It was public for a while and it was so bad¹¹⁰ that [the founder] brought it back" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

Furthermore one interviewee expressed concerns about the company becoming quoted, but is also optimistic that short term monetary demands of investors may change to demands for long term value creation, where this change would perhaps be created by the demands of the climate change agenda:

"you have to be concerned about entering a pop-up¹¹¹ market because of the short-term time pressures. But watching some of the changes, you know, climate change

¹¹⁰ Within the context of this conversation, what was so bad was the focus on monetary returns as opposed to mission.

has forced a lot of change in board rooms and shareholders and I am more optimistic that we could be a public company and the pressures on us would be realistic with the long-term value creation instead of short-term" (Recycline, Jon Lively, Operations Director)

Although a negative perception of quoted status comes through from the interviewee comments, three of the interviewees work for or founded organisations that are now partially owned or a subsidiary of a quoted company. It might be expected that these interviewees would be less critical of quoted status. However even these three interviewees (howies, Company A and Ecover) do not demonstrate outright support for quoted status. Two of the three (Ecover and Company A) highlight how their degree of freedom is compromised because the organisation is partially owned or a subsidiary of a quoted parent company:

"even our CEO would agree with that, that he also, at times, would like to do things in a different way but he's bound by rules and, and things which he has to report to the shareholder, he has to report to the banking commission and so on and so forth" (Ecover, Peter Malaise, Concept Manager)

"Now I guess where it would come to conflict, if I suddenly said 'Well I think the right thing to do would be to give half of our profit back to farmers in the [XXX]' I think we would then have a conflict with, with [the parent] I'm sure, you know, I'm sure we would" (Company A, interviewee)

While the other interviewee (howies, Dave Hieatt) highlights how along with the Ecover interviewee that if the organisation ever became fully listed (rather than just subsidiaries of or partially owned by a quoted company) the problem would be that the compromise would be complete because in this situation:

"You can't run the company in the way that you wanted to and then you're going right, actually, all the things that you wanted to fight against, you, you can't" (howies, Dave Hieatt, Co-founder)

¹¹¹ In this context – the interviewee was using the term 'pop up market' to represent the short term nature of the stock market.

"a publicly listed company...No. No, no and I hope they never will. I think the day that happens I retire unbelieving...the Stock Exchange, its unbelieving... buying and selling money" (Ecover, Peter Malaise, Concept Manager)

These negative perceptions are countered to a certain extent by a quote from the interviewee of Company A:

"The great thing with this brand it is sort of self-reinforcing in a very nice way, the beauty with this brand is we do the right thing and people want us to do the right thing, they buy us because we do the right thing" (Company A, interviewee)

In this particular case, the interviewee came from the quoted parent company after that parent organisation had bought Company A. What this quote illustrates is that the expectations of customers and the brand perception could be seen to compel 'appropriate' behaviour. In this regard, while being listed may be too constraining for some of the interviewees, this interviewee highlights that the perceptions and expectations built up around an organisation and its offerings could be seen to oblige a certain pattern of behaviour. This obligation to a certain pattern of behaviour also comes through the following two quotes, where the interviewees are from organisations which are privately or mutually owned. For example:

"I'm always careful when I talk to other people to say, look this works in our context with this community, this is how it works for us, you know, this is the model, this is how it works for us. I can't say that you can adopt that model and it would work, you know, elsewhere" (Company D, Paul Ellis)

"making those decisions in the long run I think has paid off because it gives us an identity that people then can say yeah, I can see the stuff you sell is organic, it's like we're making those sort of ethical decisions for people" (Pillars of Hercules, Bruce Bennett, Founder)

Thus the quote by the Company A interviewee and the reinforcement from Company D and Pillars of Hercules does raise questions about whether organisations (such as those interviewed for this research) are destroyed or lost when they are bought by a larger parent or can the reverse happen: that over time subsidiaries change the parent?

The general view that emerges from the interviewees is that quoted status or a form thereof is not desirable. This then begs the question of why did three organisations (Company A, Ecover and howies) become part of a quoted company in the first place? Only, Dave Hieatt of howies could provide an answer to this question as he was the only incumbent founder interviewed. His response outlined that the rationale for becoming part of a quoted parent organisation resulted from ensuring survival of the organisation he had founded, in that he had run out of available sources of finance to continue operating the business. Nevertheless, what this interviewee also outlined is that in searching for a larger organisation to invest in howies he could only find three potential companies that he would like to have invest and that “for us to only find three companies in the world to talk to you kind of think God” (howies, Dave Hieatt, Co-founder). Further, the organisation that finally invested in howies was Timberland (one of the three that Dave Hieatt was happy to do business with). As Dave Hieatt explains it, Timberland is unusual in its ability to withstand the short term pressures typically associated with quoted status because of its large percentage of family ownership. As the following quote illustrates:

“the interesting thing about Timberland, which is quite odd, is that sixty-one percent I think [of] the shares are family owned. So they’re in much more, in control than most companies” (howies, Dave Hieatt, Co-founder)

5.6 Other Areas

The other areas that came to the fore from the interviewees include examples of: how some of the organisations are prepared to ‘edit’ who their customers are, how long term planning is undertaken, the role of leadership, how interviewees love their work, a dynamic of staff loyalty and, lastly, how some everyday practices reduce the environmental footprint of their operations (easy wins). Each area is explored below.

5.6.1 Green Choice for Customers, Customers being Edited

Given the requirement to be financially viable, interviewees’ organisations, like many others, have to compete for customers’ spend. Also, given earlier discussions of how interviewees believe their products and services might pique customer consciousness once they are in customer’s hands, it is of little surprise that their products are often

a 'green choice' of an existing product rather than something completely new. A completely new product or service, in contrast, would be inherently more risky, potentially less acceptable to society and thus less likely to find its way into customers' hands where it could serve as a reminder of other values. Some of the interviewees rationalise their organisations' offerings as the 'green choice', as follows:

"you know, society's gonna consume whether we have our products out there or not, and if we're simply making a better version, then ... we don't see any issue with that"
(TerraCycle, Jon Beyer, Co-founder)

"if we don't go ahead and offer hope, hopefully a better alternative way of doing things then people are just going to carry on as normal" (howies, Dave Hieatt, Co-founder)

"we need to harness human nature, self interest, to create the change, there is no other way. We cannot wish humans to be what they are not, that is wishful thinking not borne out by my experience" (belu, Reed Paget, Founder)

While the offering of a 'green choice' may not directly challenge consumerism, and could in some respects be viewed as being complicit with it, it does not stop the interviewees recognising the limitations of their positions or outlining how they believe their offering is an appropriate step towards realising a more sustainable society with that step being partly mediated by customer expectations (or more plainly what sells).

" at the moment there's no point, this is for example, there's no point in me trying to convert a meat eater to go vegan, right, the thing you do first is you try and persuade them to give up a bit of meat and carry on eating fish and then possibly filter it down, filter it down" (Beyond Skin, Natalie Dean, Founder)

"if we provided the greenest product, then a lot of people wouldn't use it, and so nothing would move forward. You'd just either have the standard product or the very, very green product right over here and trying to get customers to move from here to here would be nigh on impossible, so you have to make it in a, in a step, you know, you have to move through" (Green Stationery Company, Jay Risebridger, Founder)

This recognition of not providing the greenest possible choice can be seen as a criticism of these organisations. It is, however, a position congruent with the requirement to do money and mission. Nevertheless this position does not mean 'anything goes' for all the interviewees. For example:

"the only people I've never ever sold to is [XXX],¹¹² you know, and they did ask me for a whole load of paper and I said 'No, we're not, there's no way we're supplying (laughs) you guys cos there's nothing positive about anything you do' (Green Stationery Company, Jay Risebridger, Founder)

"But the, the [XXX]s¹¹² of this world, the, [XXXs] of this world, the [XXX], the [XXX], no, no we have a responsibility not to support their actions and their behaviour" (Suma, Andrew Mackintosh, member)

"We'd sell in [XXX]. ... Even though they're a big corporation they're doing it in the right, in the right way ... but we wouldn't sell in [XXX]" (Terra Plana, Rosie Budhani)

These statements reinforce the primacy of the mission for interviewees and the ultimate secondary nature of financial concerns. Acting on these statements invariably limits financial throughput as well as potentially affecting their organisations' abilities to create change as the product or service may not reach certain customers' hands. It also indicates another rejection of any economic mantra focused on unquestioning growth. From an alternative perspective, this rejection may not be that significant a sacrifice given that the decisions to supply certain entities may create negative reactions from employees and existing customers and not be congruent with organisational mission. However, the impression given by interviewees is that these decisions are principle based as opposed to arising from a calculation of the likely financial effect that could arise from reactions by existing customers or employees.

5.6.2 Long Term Planning?

The missions of interviewees' organisations, as discussed in previous chapters, are focused on environmental integrity or aspects of sustainable development, which in a

¹¹² The names of the organisations in this set of quotations have been removed as it does not seem appropriate to reiterate their names. Suffice to say the organisations are major national/multinational organisations.

broad context makes the missions of the interviewed organisations likely to be informed by aspects of the values inherent in sustainable development. Sustainable development is especially concerned with inter-generational effects which dictate a consideration of generational timeframes. A generation can be defined as a time period of 30 years.¹¹³ When exploring whether any of the interviewee organisations planned or considered this length of time in the planning for their organisation, none did, except for Company E which relied on the regeneration of a natural resource base that extended beyond 30 years.¹¹⁴ Nevertheless, interviewees do describe instances where a longer term view is taken, or how they are guided by long term concerns. For example:

"We're building turbines where people live, where people can see them and it's part of a very long-term strategy that says we have to have fifty percent of our energy from wind by 2050" (Company B, Dale Vince)

"the long-term view of how we see, how we see the future of the planet perhaps might be, you could certainly say that that guides us" (By Nature, Graham Randles, Co-founder)

"we're kind of thinking about right, over the next ten years, you know, how do we try and shape howies that .. you know, so therefore it could be a company that we hoped it would be" (howies, Dave Hieatt, Co-founder)

At the same time as taking this longer term view, the interviewees express antipathy towards short termism:

"my problem with lots of companies is they're always governed by [the short term] ... their idea of long-term is the next twelve weeks,... and I think, we have to believe this thing on a, on a Monday and a Tuesday and in 2007/8/9" (howies, Dave Hieatt, Co-founder)

"we're not in for a short-term gain" (Triodos Bank, Charles Middleton, Managing Director)

¹¹³ A generation can be defined as "the average length of time in which children become ready to take their place of their parents, usu. reckoned at about 30 years" (Oxford Dictionary 2005:1082).

¹¹⁴ In this instance, because the timeframe for regeneration was in excess of 30 years the organisation focused on replanting as much woodland as they could, regardless of whether or not their particular organisation would benefit from that planting. The planting activity was driven (as is common with many organisations interviewed) by mission and values, rather than a sense that it was economically rational for the activity to take place.

However, interviewees from two of the youngest organisations at the time of interviewing, By Nature and TerraCycle, indicate that although guided by long term concerns they are especially short term with regard to ensuring their financial viability because of the desire to have the organisation reach a state where it can meet its liabilities.

Against these long term views and the particular views of the two young organisations, some of the other interviewees express planning horizons between three and five years (Company A, Green Building Store, Recycline) or perhaps longer depending upon the supply line for a particular aspect of their product or service, for example: Company A and Pillars of Hercules.

This flux between being guided by, and or taking a long term view while at the same time being concerned about shorter term financial considerations is unlikely to be a concern unique to these interviewees.

5.6.3 Love & Loyalty, Leadership, Structure

The primacy and importance of organisations' core missions is also reinforced by some of the interviewees using the word love to illustrate their sense of connection to what they are trying to achieve via the organisation. The use of the word love is unusual in any interview context or business setting. In total, eight interviewees (BioRegional, Company B, Company D, Company E, Green Building Store, Terra Plana, Suma and Triodos Bank)¹¹⁵ use the term love or affection in discussing their organisations. For example Sue Riddlestone (BioRegional, Co-Founder) describes the work her organisation does as being work of "love and attention", Charles Middleton (Triodos Bank, Managing Director) describes how the people in his organisation refer to themselves "slightly tongue in cheek [as being] the lurve bank", and Eoin Cox, founder of Company E highlights how the work he does comes from a "platform of soul".

This connection between the individuals and their work can be summed by the following two quotes:

¹¹⁵ Only four out of the eight interviews with these organisations were with founders.

"it's just a whole way of living. You know, to me work is part of life I don't, you know, I don't separate it that much" (Green Building Store, Bill Butcher, Co-founder)

"It's fun, we love it. You know, what are you going to do with your life?" (Company B, Dale Vince)

However, this love is not a 'romantic' love, but 'tough' love. As Dave Hieatt the co-founder of howies explains vividly, he sees his role as being the difficult individual, where the difficult individual keeps the organisation moving forward in its search for improved methods:

"difficult guys in the corner going we don't do that and we ain't ever going to do that and you can go and send it back and I don't care how hard you've done, and I think it, it needs those stubborn mules to go we're not doing that and I don't care and that I'm quite happy you know, to talk to anybody, but we're just not going to do that" (howies, Dave Hieatt, Co-founder)

Similarly, Sue Riddlestone the co-founder of BioRegional also expresses a desire to be "pushing the boundaries of how much better we can do to be sustainable."

Love and passion for a company is also likely to show itself in terms of commitment not only in the application of, or adherence to the mission but also in terms of staff loyalty. In this regard the interviewees offer examples that demonstrate that the organisations have strong staff loyalty. For example:

"We try, as far as possible, to, try to engender performance, if you like, from actual identification with the mission of the society, with, you know, the goals of the society, and .. by and large I think we're successful in doing that and that reflects in the fact that individuals tend to stay with us quite a long time" (Company D, Paul Ellis)

"Actually one of the advantages of the business, in the model we've got, is that people become very committed, and we keep our staff a long time... they find the direction of the business actually quite meaningful so therefore working here is more than just a job" (Green Building Store, Chris Herring, Co-founder)

The benefits of staff loyalty are well documented (for example see Reichheld, 2001) and for the organisations researched, this loyalty might be self-fulfilling, as the interviewees themselves recognise. That is, the individuals joining the organisations are likely to be self-selecting on the basis of mission statements.

"I suppose the people are attracted to us because as what they see as, you know, Triodos' mission or ethos, and that's a very important part of the, of the relationship we have... between the co-workers and Triodos"(Triodos Bank, Charles Middleton, Managing Director)

"I think a lot of, quite a lot of people have come here cos they've wanted to work here cos they... saw the business and thought I'd like, that's the business I'd like to work in" (Pillars of Hercules, Bruce Bennett, Founder)

This connection to mission also allows the organisations to attract individuals that might otherwise be beyond reach because of the typical market rates for remuneration.

"Anybody who's not committed to what we do, or at least sympathetic...our salaries aren't high enough, to be honest...I mean we wouldn't be able to recruit" (People Tree, Deborah Isaacs, General Manager)

Outside of attracting individuals that may typically be beyond reach, it is perhaps not surprising that any individual joining an organisation self selects based upon that individual's identification with an organisation's particular mission and in turn an organisation looks to recruit people who are on their "wavelength" (BioRegional, Sue Riddlestone, Co-founder). However, for some of the interviewees (biome Lifestyle, Green Building Store, Terra Plana, TerraCycle, Company B, Company C, Company D) what is also clear is that no one type of individual joins the organisation. There are a variety of individuals that differ according to the strength of their personal connection to the organisation mission. This variation can be illustrated by the following quote:

"inside TerraCycle we have, we have an interesting mix of people. We have people who .. I would describe them as pure capitalists, they don't necessarily care about the environmental nature of the company, they view this as a business. We have, the

people who are very concerned about the environment and the Greenpeace type people, and we have everybody in the middle" (TerraCycle, Jon Beyer, Co-founder)

Outside of adherence to mission, two of the interviewees offer alternative rationales for staff loyalty, low wage differentials and less bureaucracy. With regard to low wage differentials;

[Referring to a 5:1 salary ratio in the organisation] "it's really about reinforcing the idea that .. we're not here to, simply to make money and therefore the incentives for the people here is not just to make money from the organisation making money... but we want to, we want to engender an idea that .. within the organisation that we focused on the success of the organisation .. and that we're all involved in that" (Company D, Paul Ellis)

[Referring to low wage differentials] "Well it, it makes life so much easier because you can motivate your workforce far more ... Well I think they respect that you're doing something not just for the money, you know, it's for the quality of the product, if you like, or the service or whatever" (Green Building Store, Bill Butcher, Co-founder)

With regard to bureaucracy three of the interviewees (Company B, Company D and seventh GENERATION) highlighted that as their organisations are smaller they are potentially more intimate and thus less bureaucratic.

"we've had people who have come and joined us from large organisations, say it's a breath of fresh air" (Company D, Paul Ellis)

"We've got a lot of people, refugees from the big six I like to call them, from the big six XXXX companies and they had a career in conventional business and they're refugees and they come here and it's like they're on the beach, you know, they love it" (Company B, Dale Vince)

[Referring to individuals that worked for another company that was in the proximity that had been taken over by a PLC] "all of a sudden taking a big gulp of the dinosaur and smelling sort of the back end of the dinosaur. Everybody wanted to leave, and so we've been hiring an immense number of people because nobody likes the smell of the back end of a dinosaur" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

5.6.3.1 Leadership

A lack of bureaucracy, while potentially engendering loyalty, also demonstrates itself in how some of the interviewees¹¹⁶ discuss their leadership style. The general tone regarding the interviewees' discussion of their leadership style is one of reluctance, hesitancy and humility in that the leadership role is something that is forced upon them because of staff expectations:

"people do expect you to be leading them a bit" (BioRegional, Sue Riddlestone, Co-founder)

"people will bring things to me and say they need a decision on that" (Company B, Dale Vince)

"its just that I end up having the sort of final decisions about things, cos somebody has to at the end of the day" (Green Stationery Company, Jay Risebridger, Founder)

"because people like to be told what to do" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

By the same token, the interviewees highlight how even though they may be the leaders, there is no lack of discussion in the organisation and there is a striving for "an engaged relationship rather than a relationship of fear" (Company D, Paul Ellis).

Regarding leadership, two of the founders (Company B, Dale Vince and Green Building Store, Bill Butcher) also describe themselves as 'benign dictators'. However, this benign dictatorship comment is not as negative as it may sound, as it came across as being a short hand term to describe and reinforce this tone of reluctant leadership and an engaged relationship between employees, while at the same time reinforcing adherence to the mission as the following quote demonstrates:

"[in response to a question about the interviewee's use of the term benign dictator] how do I keep it in check?¹¹⁷ I don't know it must be about why I'm making the

¹¹⁶ Nine interviewees/organisations discussed this area (BioRegional, Company D, Company B, Green Stationery Company, Green Building Store, howies, revolve, seventh GENERATION, Company E) of these 7 were founders and 1 was a CEO and 1 was a director.

¹¹⁷ Here the interviewee is referring to ensuring that they keep their leadership style open as opposed to one based on fear.

decisions. So it isn't for personal gain and I enjoy working with a team of people, we talk as equals, you know. When I say I'm a benign dictator you know, all I really mean is I make, I call the shots but there's no lack of discussion ... I invite ideas and delegate and all that kind of stuff, but the ultimate strategy, when push comes to shove, people will bring things to me and say they need a decision on that and then I make it. You know, we are, we're quite democratic really, but at the end of the day, somebody has to say don't they, even in our democracy, the Prime Minister has to"
(Company B, Dale Vince)

This general tone of reluctant leadership may just be purposeful interviewee humility when discussing the subject of their leadership within the interview context, although it did not come across as this. Rather, it came across that leadership was a role that interviewees are genuinely uncomfortable with and something that they accept reluctantly, but is ultimately inescapable because every organisation needs decisions made.

5.6.3.2 Structure

Interviewees were also asked whether they had explored new organisational structures as opposed to conventional hierarchal structures. No interviewees could point to different approaches to their organisational structure, with only one interviewee offering a rationale for this, in that regulatory requirements required a "clearly identifiable chain of command" (Company D, Paul Ellis). Nevertheless the interviewees do place an emphasis on a "flat structure" (Triodos Bank, Charles Middleton) and a desire to "try and involve everybody" (BioRegional, Sue Riddlestone). Furthermore, one interviewee was particularly damning of conventional hierarchical structures, noting that:

"its blocking development when you have an old fashioned structure where one guy on the top is able to decide alone and himself about everything without consultation and without any possibility of retaliation afterwards... where you have an old fashioned hierarchy which is not enough based on consultation and dialogue" (Ecover, Peter Malaise, Concept Manager)

While another interviewee highlighted how there is a battle in the organisation to maintain informality:

"We have a board of directors, and our board of directors is always pushing for more formality and more structure .. but I, I think that Tom, Tom fights that, and I think that .. it, I think it's great for anybody to still walk into Tom's office and sit down and talk to Tom and think, you know, suggest that we should develop this product or that product. .. When you have that sort of atmosphere, everybody feels like they're, you know, sort of (...) in the company, they feel more a part of it if .. everybody's sort of at the same level." (TerraCycle, Jon Beyer, Co-founder)

Two of the larger organisations (>50 staff) also offer examples of practices they employ to maintain a lack of hierarchy that might not typically be associated with conventional organisational structures. One being the use of a lunch club, where:

"Well we're in pairs [ie two staff members] and then two of us go off for a week, so it's my week next week, and me and my partner will go and cook lunch for everybody for a week" (BioRegional, Sue Riddlestone ,Co-founder)

Another example being a Monday morning 'town hall' type meeting where everyone gets together to challenge and discuss issues with the aim of ensuring that the organisation remains, as the following quote highlights, a special place to work:

"As you grow you can't make assumptions that some of those things that were inherent... in terms of everybody knowing each other and, and having a sort of quite intimate relationship, you do have to put in place certain things... There are certain things that are very fundamental to the way that we work. I mean we are a group of co-workers, every Monday morning we have a meeting with the entire co-worker group in one room, where it's getting quite challenging, and I'll always be worried about the floor caving in but that's what we do and that's a really important part of what we do, it's just that it gives us an opportunity to be together and sort of talk about certain issues that are important to us. But yes we do have to work at it. I mean I'm very concerned that Triodos remains, a special place to work at and that does require, as I say, a level of consciousness" (Triodos Bank, Charles Middleton, Managing Director)

While these two sets of practices may be fairly conventional, they do (in conjunction with the use of the term 'co-workers' – see the quote above) indicate a sense of 'us' in the organisations as opposed to an 'us' and 'them.' Therefore, these practices reinforce an overall sense that arose from the interviews that these organisations are places of robust dialogue and engagement as opposed to hierarchy, silence and

order following. Furthermore this dialogue and engagement appears to be built around the entities' missions, as the following quotes demonstrate:

[Referring to the questions the company asks of itself] "how do we design everything around the earth" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

[Referring to the company's value team whose remit is to be] "Continually refreshing and challenging our thinking about the ethos [of the company]" (Triodos Bank, Charles Middleton, Managing Director)

"We turn everything seven times up and down before we take a decisions to make sure we don't take the, the wrong one" (Ecover, Peter Malaise, Concept Manager)

5.6.4 Everyday Practices

The ability to ensure a questioning environment within an organisation is one thing. There is also a need for organisations to reinforce everyday practices that are congruent with its mission. To this end, the interviewees also offer some simple examples of practices they engage in. These examples are listed below in Table 5.1, and although not strictly quotes they do offer a further understanding to the reader of the general modus operandi of the organisations interviewed.

Table 5.1 : Simple Everyday Practices the Organisations Engage In

Area	Example
Packaging	<ul style="list-style-type: none"> • Using recycled plastic bottles and applying recycled plastic labels to these bottles. These bottles and labels are then used as the package in which the product is sold (see www.terracycle.net, for an example) • Using recycled packaging, ie suppliers' packaging <ul style="list-style-type: none"> ○ <i>"we've never bought a piece of packaging in our life, you know, we don't buy it, you know, we just use everybody else's"</i> (Green Stationery Company, Jay Risebridger, Founder) • Using biodegradable plastic wrapping for catalogue mailings – Suma

Area	Example
	<ul style="list-style-type: none"> • Using non-plastic recyclable jiffy bags for packaging products for dispatch – biome Lifestyle
Employee Incentives	<ul style="list-style-type: none"> • Employee pensions and company banking is done with ethical funds/banks – BioRegional • Company loans for upgrading employees’ cars and houses to reduce their carbon footprint – seventh Generation • Mileage allowances for cycling to work – Green Building Store
Operations	<ul style="list-style-type: none"> • Not making to stock <ul style="list-style-type: none"> ◦ <i>"we no longer produce t-shirts people don't want to buy" (howies, Dave Heatt, co-founder)</i> • Product Take back - Exploring trade in policies for old clothes (howies) • Dematerialisation <ul style="list-style-type: none"> ◦ <i>(discussing their recent store opening) "we're going to email you the receipt rather than give you one, a paper one" (howies, Dave Heatt, co-founder)</i>
Trust and Transparency	<ul style="list-style-type: none"> • Transparent pay structures – BioRegional, Company E • Trust <ul style="list-style-type: none"> ◦ <i>"if you say you've got 400 mls in, in the bottle, I don't know exactly what the law says, but I think there's a certain amount of latitude around the 400 mls. We don't have latitude around the 400 mls, 400 mls. Is the minimum, right" (Company C, interviewee)</i> • Transparent bottles <ul style="list-style-type: none"> ◦ <i>"clear bottles means you can see what's in it,..warts and all" (Company C, interviewee)</i>
Other	<ul style="list-style-type: none"> • Heating the building with a wood powered boiler rather than burning oil – Pillars of Hercules • Planting trees to offset their carbon emissions – Suma • Sustainable/eco-efficient head office rather than a "shed on an industrial estate...important to us from the point of view of meeting our prime objectives" (Company D, Paul Ellis) • Second hand Furniture <ul style="list-style-type: none"> ◦ <i>"when we buy furniture its second hand or its wood</i>

Area	Example
	<i>from a sustainable source” (BioRegional, Sue Riddlestone, Co-founder)</i>

5.7 Doing More (Challenges/Blockers)

The interviews invariably came to a close with a final question that explored what the interviewees perceive as being the major challenges or blockers that prevent their organisations becoming more environmentally sustainable. The responses to this question range from comments regarding the availability of people and managing people effectively, through to the number of suppliers within the ‘green space’, to the challenges the organisations set themselves and the difficulty this creates because they are operating in a market space where there is a dearth of role models. Taking these areas in turn; the challenges regarding the availability of, and managing people to ensure engagement are illustrated via the following quotes:

“The biggest hurdle first of all is trying to find resource [referring to people] to do it, given the expansion’s going so much right now” (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

“The real barrier to doing any of those things is not the aspiration... it’s how you deal with the people issues and train and develop and get people to work as a team and delegate and all this kind of stuff. That’s always the most challenging part of any business and this business is no different, and if I had to point to one barrier, that’s it” (Company C, interviewee)

The lack of ‘green’ suppliers that provide products or services that are consistent with the organisations’ missions and the demands of the market space that the organisations are operating in also provide a challenge. For example:

Interesting Aside 3 – Supply Issues

Of the seven interviewees that had text coded to the theme of supply issues as being a challenger/blocker, all seven were from organisations that have less than 50 employees with 4 of the 7 having less than 10 employees. This may be illustrative of the difficulty of finding and securing supply deals when an organisation is smaller.

“an ethical company obviously has, has more hardships than obviously a normal small business, purely because our choices are limited, a lot more limited” (Beyond Skin, Natalie Dean, Founder)

"I would say that materials is, is kind of foremost in that. It's difficult to... just sourcing new ones" (Terra Plana, Rosie Budhani)

"I do think some of it is partly because we're an environmental company, cos as I say I think otherwise we'd be able to go and get things mass produced ... in foreign countries and I think ... the costs would be a lot lower and therefore you'd probably be able to reach a lot wider market with the products" (biome Lifestyle, Alexandra Bramham, Founder)

The following quotes highlight what some of the interviewees see as their organisations biggest challenges, the challenges they set themselves:

"How do we do the best organic line of cleaners how do we achieve that? You know the other part, we're doing a whole repackaging thing. So how do you look at packaging and how do you look at the end of cycle and how do we begin to think about designing, so that really there's no weight in the packaging? ...How do we design, how can we design every moment for one hundred percent of the wellbeing of all humanity? ... some people have talked about can we actually make the packet out of the detergent, so at the end you the packaging goes straight into the washing machine or whatever. ... another one is why are we still thinking in spray cans, I mean why aren't we thinking in a whole another level of what does it really mean to create the healthiest house possible"(seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

"how do you, you make a tee shirt and cut down the amount of water used? How do you make something so it can be unmade?"(howies, Dave Hieatt, Co-founder)

Whereas for other interviewees the challenge is the lack of role models or a prescribed path, for example:

"I mean it would be nice if I knew where to go. I mean with, with everything we do it's yet another step forward and then you have to find out something else, but it'd be good to know what are all the options, you know" (BioRegional, Sue Riddlestone, Co-founder)

Interesting Aside 4 – Role Models

The issue of role models is mentioned by four interviewees all from organisations with less than 50 staff with one having 10 or less staff. This is perhaps not to be unexpected for relatively small and relatively new ventures.

"there's no, there's no role models out there, there's no, you know, so we're sort of, we're always having to make the way, you know what I mean" (biome lifestyle, Alexandra Bramham, Founder)

"So you're building a boat and, and you're sailing it at the same time ... meaning that you, well whilst sailing you'll discover a lot of things which you then can apply in your business, and by doing that you'll discover other things and, well it's constantly, a constant to and fro .. between discoveries and, and applications" (Ecover, Peter Malaise, Concept Manager)

The challenges and blockers that emerge are ones that point both to the pioneering role the organisations are taking, the relative newness of their markets and the lack of supporting business ecosystem. ¹¹⁸

Summary

As highlighted at the start, this chapter has attempted to minimise discussion from the author surrounding interviewees' quotes and in so doing, as per O'Dwyer (2004), make "liberal use of quotes...in order to allow the reader to hear the interviewees' voices" (ibid:403). Consequently there is minimal discussion or summary to be offered within this chapter. The chapter covered a multitude of areas ranging from; what interviewees' see as the purpose of their organisations (pioneers of change in industry and or society), their views of the relationship between the economy, society and the environment, that money is a means and their organisations are tools to realise the mission, to their examples of sufficiency, generally negative views on quoted status and their desire for the growth of their organisations. Outside of this, some surprising areas also arise; in particular; how the interviewees brought forward notions of love and reluctant leadership as well as some perhaps more mundane but every day practices that organisations can implement such as using recycled material for packaging.

¹¹⁸ In this sense eco-system refers to a mature set of suppliers, retailers and other component supply chain operators all aligned to offering the environmental choice. For a full understanding of business eco-systems and the concept it incorporates see, for example, Iansiti and Levein (2004).

Alongside the interviewee quotes, some 'interesting asides' were also brought forward in this chapter, asides that are potentially points for future research. These highlighted how interviewees from larger organisations are more likely to discuss their organisations purpose as realising social change and have examples of sufficiency. While interviewees from smaller organisations are more likely to cite a lack of available suppliers and a lack of role models as challenges for their organisations' progression.

Although minimal discussion occurred in this chapter regarding the interviewees' quotes a close reading highlights that the interviewees' quotes carry within them assumptions; for example, the ability of their products to influence and change customer perceptions of the environment. This and a more detailed discussion of the interviewees' quotes will be explored in the following chapter, where the narratives are reflected against academic literature.

Chapter 6

Discussion of and Implications from Data Interpretation (1)

Introduction

This chapter discusses data interpretation (1), the content of the previous chapter, drawing out key messages, implications and reflections on that content. The previous chapter had minimal discussion throughout in order to “allow the reader to hear the interviewees’ voices” (O’Dwyer, 2004:403) without overt interruption and narrative from the researcher. This chapter takes the opposite view and offers the researcher’s view on the content of chapter five and the implications that arise to the researcher, from ‘hearing’ the interviewees’ voices.

The chapter proceeds by first discussing and drawing out the implications from, in the researcher’s view, the core narrative that arises from the interviews: the need to balance mission and money. In particular this discussion leads to how an aphorism of “altruistically selfish and selfishly altruistic” (Maturana & Varela, 1998:197) can be used to conceptualise the organisations’ balancing of mission and money. After this, a discussion of the interviewees’ views on their organisations pioneering status is offered prior to exploring how the interviewees’ views inform the research questions. Following this, a review of other points the interviewees raise and how these are reflected in the literature is offered: for example how the interviewees believe that their products will create change in the customer when in customers’ hands is discussed. Penultimately, a conceptual model for the zone of operation of the organisations is offered and finally the chapter’s key messages are summarised.

6.1 Mission and Money

As seen in chapter five, numerous messages are evident from the interviewees, for example: how they see their organisations roles as being pioneers to change industry and or society, how money is a means to realise their missions ends and how they try and balance between ensuring financial viability and acceptability to customers and realising the organisations’ purpose, to name a few. In the previous chapter some of the interviewees’ views are summarised under a title of ‘purpose and pragmatism.’ Similarly, the interviewees’ views could be summarised as being evidence of organisations which pursue mission **and** money. While it could be argued that the pursuit of mission and money is an obvious statement, particularly because

for profit organisations will cease to operate unless they maintain access to or can generate via their operations money. There is more subtlety to the interviewees' positions. The interviewees do not appear to be purely exploiting win/win strategies, although some exploitation of a win/win is a necessary aspect for their organisations' continued survival. Rather the interviewees' views highlight that their organisations are vehicles for change and money is a means to allowing that vehicle to realise environmental and social goals. In this regard the interviewees' are aligned to Morgan's (2006) discussion of organisations as being a "tool or instrument" (ibid:15), where that tool is being used to realise a future that revolves around environmental and social outcomes that the interviewees perceive as being favourable.¹¹⁹ This focus on the mission being primary and money being secondary implies that the interviewees, and by extension their organisations, cannot be reduced to cynical money chasers; where money is the aim and, for example, the environment is a means of getting it. This is because the interviewees' demonstrate the primacy of the mission and the secondary status of money through their examples of: sufficiency, alternative measures of success, a general rejection of quoted status, editing customers, questioning growth and their desire to change society and/or their industry.

The primacy of mission and secondary pursuit of money also represents a departure from the setting up of an 'either or' situation between environmental and social outcomes and money, where money and environmental or social outcomes are equivalents. The interviewees demonstrate this through seeking minimal rates of return, delisting of or not taking on new product ranges, and their refusal to sell to particular customers. However, at the same time there is a limit to this behaviour. The interviewees are also clear that if something "fantastically ecological or sustainable cannot be done in a rentable way" (Ecover, Peter Malaise, Concept Manager), to some level of return, then it is unlikely that the initiative will be pursued. Thus while they are pursuing mission and money they are ultimately bound by the requirement to ensure economic viability by competing for customer's economic votes (Dickinson & Carsky, 2005) in order that their organisations continue to operate. This movement from a focus on mission and recognising limits because of a requirement to ensure economic viability could be described as the interviewees moving through different conceptions of self-interest, from wide to narrow concerns,

¹¹⁹ Although not conducted in this study, future studies could perhaps explore the interviewees' notions of what is favourable.

as described by Egri and Pinfield (1999). In this context if the organisation can maintain a minimal level of economic viability from an offering then the scope of self-interest for the organisation is relatively broad.¹²⁰ Whereas as economic viability is challenged the scope of self-interest narrows.

This recognition of money being the ultimate arbitrator for economic organisations is not unexpected. However, it should not be assumed that because of this the interviewees will allow their organisations to submit only to this arbitrator. For example, the interviewees' views on their organisations becoming quoted are mixed with some highlighting that they would never allow the organisation to become quoted because in so doing money becomes the measure. Others were less absolute and hoped that ultimately the demands of quoted status would change to reflect environmental issues, thus infusing quoted status with different metrics. Similarly, many of the interviewees are clear that they would rather their organisations fail than the organisation "just become another company" (TerraCycle, Jon Beyer, Co-founder) which is no longer "environmentally making some sense" (Green Building Store, Chris Herring, Co-founder). Taking this further, when asked about how the organisations would compete, if there was no point of difference between their offerings and other competitors the interviewees are clear that the organisation would either compete on the basics of great service and products or it might actually cease to exist and "that would be a measure of success, that would be one way to say, we've done our job because we, as a catalyst we'll have caused the change that made us redundant as it were"¹²¹ (Company B, Dale Vince). Thus although the interviewees recognise that money is perhaps an ultimate arbitrator for the continued survival of the organisation, the survival of the organisation is viewed through a lens that reinforces that the organisation is merely a tool (Morgan, 2006) for shaping a future (Sarasvathy, 2004). Further the organisation is not the focus of what needs to survive, rather its continued survival is reliant on its continued relevance within conceptions that include the environment, society and the economy, ie a wider sphere of concern.

¹²⁰ A view to some degree supported by the second 'interesting aside' of the previous chapter where it was highlighted that larger organisations (by staff number) offered more examples of pursuing sufficiency.

¹²¹ In this instance the interviewee is highlighting how if climate change was tackled, their wider purpose and point of difference would no longer be required and in effect the company's purpose would be redundant.

In this regard, the views taken by the interviewees would not appear to be *orgocentric* (Egri & Pinfield, 1999), where organisations are the foci and environmental and social concerns are only defined relative to them. Further, the interviewees' views indicate an expanded notion of self interest (Egri & Pinfield, 1999) regarding the organisation and its purpose in society. This expanded notion of self interest does not sit well with metaphors such as machine or organism metaphors that promote a narrow self interest regarding the organisation (Egri & Pinfield, 1999).

The interviewees' views on their organisations' pursuit of mission and money and their expanded notion of self interest regarding the organisations purpose and their apparent dismissal that the organisation is the sole focus of value and the unit that must survive, indicates that a metaphor for their organisations such as the machine or organism metaphor are not entirely applicable in the context of this research. Although not a metaphor, an aphorism that resonates with the interviewees views of the organisations is "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197).¹²² This aphorism draws upon biology and faces an issue in that organisations are not biological they are social phenomena (Katz & Kahn, 1966; Burrell & Morgan, 1979). Nevertheless, what is useful about this aphorism is that it appears to fit relatively well to how the interviewees conceive of their organisations purpose within wider society. The aphorism describes behaviour but places the behaviour within a wider context. To explain, altruistically selfish and selfishly altruistic is an aphorism that describes the paradoxical behaviour that can occur in individual animals which also operate as part of herd. Whereby the animals act selfishly by aiming to ensure their own survival but also act altruistically by aiming to ensure the survival of the herd (see Appendix 6, section 6.1 for further notes on this behaviour). Thus there is an emphasis on the actions of a few, at any point in time, within a wider society that helps ensure the survival of the few and the wider society. To explain further, Maturana and Varela (1998) describe how, for example, herds of animals ensure their survival by having some of the herd act as 'look outs' for danger. Consequently, an individual 'look out' helps to ensure not only its own survival but also that of the herd as a whole, with the individual's behaviour being appropriate if an expanded notion of self-interest that includes the herd as well as the individual is taken. Thus by extension, the interviewees' views highlight how

¹²² See Appendix 6 for some expanded notes on this aphorism.

their self-interest is expanded to include society and the wider environment, as it was concerns about these aspects that drove them to start their organisations. Further, as the interviewees highlight, the organisations continued operation is only of concern in so far as the organisations actions are relevant to realising environmental and social outcomes.¹²³ In this regard the interviewees are also demonstrating some aspect of embeddedness¹²⁴ regarding their views of their organisations, whereby they understand that their organisations sit within a wider context and are not separated out. As demonstrated by the following quote;

"our business has to understand that it's going to take from it [the planet] to be able to be a business .. and somehow, it's not easy, we've got to find a way that it kind of works with the planet rather than just taking from it" (howies, Dave Heatt, Co-founder)

Taking the aphorism further, Maturana and Varela (1998) argue that this altruistically selfish and selfishly altruistic behaviour of herds is concerned with groups trying to maintain the ability to adapt and the individual providing that ability to adapt within a wider group setting. Thus the individual is individualistic in its desire to seek adaptations that benefit the herd as a whole. By extension, the interviewees' comments regarding their organisations pioneering status are perhaps similar to the seeking of adaption and ultimately the creation of new market space in which others may flourish.

6.2 Pioneers

As highlighted previously, the view that arises from the interviewees is that the organisations are pursuing mission and money. Further, in pursuit of this they face difficulties such as: accepting reduced rates of return, a lack of role models, a lack of

¹²³ Even though this relevance is defined by the interviewees, the important aspect to note is that the concern is not with regards to the survival of business. Rather it is driven from a perspective on social and environmental issues.

¹²⁴ The concept of embeddedness is typically discussed in terms of the social embeddedness of economic action for example discussing how individuals are not purely economically rational agents but rather economic decisions are also taken cognisant or inclusive of social outcomes such as status and power (for example, see Granovetter, 1985, Granovetter, 2005, Uzzi, 1997). The concept of ecological embeddedness has also been offered by Whiteman and Cooper (2000). Embeddedness is discussed more extensively later in this chapter (section 6.3.1) and at this stage the use of the word embeddedness is purely to denote the literal sense of the term as it arises from the interviewees' comments.

suppliers and the availability of suitably trained staff.¹²⁵ In this regard the organisations are perhaps suffering the difficulties of being pioneers that are trying to realise a new market space, as any pioneering organisation lacks a mature business ecosystem¹²⁶ to support it. The pioneering status is something that the interviewees generally welcome as the following quotes highlight:

"Our mission is not that much to become the biggest in the world in, in let's say a Microsoft way of dealing with business, but is to stay on the forefront of developments, to be a pioneering company." (Ecover, Peter Malaise, Concept Manager)

"I think our charge is to always be looking for the next sort of horizon, where is the next area of social and environmental change that we want to influence and have an impact on?" (Triodos Bank, Charles Middleton, Managing Director)

"Well I think there is this opportunity to perhaps never to be mainstream almost to be constantly promoting that actually more needs to be done, because, as I say, if people just sort of bought in, en masse, and we were selling sort of hundreds of thousands of everything that's in our product line, we'd probably have to say well what about the environmental impact of all this and, and we'd constantly have to be taking it a step further."(By Nature, Graham Randles, Co-founder)

Being akin to a pioneer allows the continual challenge of the mainstream; it also brings forward a campaigning element to the organisations. The campaigning element might not be unexpected given Carroll's assertion that "most industries begin looking like social movements" (Russo, 2003:318 citing Carroll, 1997)¹²⁷ and Isaak's (2002) observation that 'ecopreneurs' (a term Isaak uses to describe entrepreneurs who establish organisations focused on environmental missions) know

¹²⁵ Tilley (1999) found a similar barrier regarding businesses being able to behave in a more environmentally responsible manner. One of Tilley's key conclusions regarding helping organisations to pursue environmental ends was ensuring that environmental education and training is provided in society.

¹²⁶ In this sense ecosystem refers to a mature set of suppliers, retailers and other component supply chain operators all aligned to offering a particular service. For a full understanding of business eco-systems and the concept it incorporates see Iansiti and Levein (2004). Taking this concept further, mature organisations and market spaces have in their genesis co-created an established supplier base, a set of comparable companies and an evidence base for teaching and training personnel. An argument that Drayton (2006) makes by highlighting how as the number of organisations focused on a particular area increases so do the support services, thus making the routes more prescribed for subsequent generations of organisations.

¹²⁷ Also see Swaminathan and Wade (2001) who make a similar point regarding new industries and small organisations but argue as social movements grow and acquire more resources they move from activism to maintenance and oligarchisation.

that they "will never reach the ideal" (ibid:81). Nevertheless, this pursuit of the next mission horizon is underpinned, for some, by a fear of a loss of the uniqueness that they have and if lost the organisation would not be able to survive;

"we need to find a way to really find our niche in this world of cleaning and homing and healthy homing in a way that we haven't done before. Because just selling spray cleaners and a high level of spray cleaners, is not going to be enough when P & G or one of the big guys comes in and says look we have an entirely green line, we can do it for a lot less, ...they've got much more of a presence in lots of ways, they could smash us quickly" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

This fear of loss of niche is compatible with ensuring relevance within a context and congruent with the concept of competitive advantage.¹²⁸ A concept that dictates that unless the organisations can maintain uniqueness to their identity and or offerings then their economic survival will ultimately be challenged by those competitor organisations that can offer the service or product via a superior cost or differential advantage. Thus, as Morgan (2006) argues, the capitalist producer has to "find ways of constantly beating the competition" (ibid:277) and consequently organisations are perhaps compelled to be pioneers even though as Morgan (2006) argues each new frontier carries within it the basis of new competition and the seeds of its own destruction.

Although this pursuit of an ideal and a desire to be organisations that are pioneers carries with it the seeds of its own destruction, the benefit is that (at some level) the profit motive has created a movement towards continual improvement. Within the context of the missions of the organisations interviewed this provides the possibility for wider environmental and societal benefits to be realised. Further, within the context of realising industry and or social change, the logic of the interviewees' views regarding the growth of their organisations being preferable relative to the growth of others can be understood. Their growth, other than helping to ensure their economic survival, also creates increased impetus for the 'mainstream' to move as it

¹²⁸ Competitive advantage can be defined "When two firms compete (i.e. when they locate within the same market and are capable of supplying the same customers), one firm possess a competitive advantage over the other when it earns a higher rate of profit or has the potential to earn a higher rate of profit." (Grant, 1995:151). Alternatively, competitive advantage can be defined as "the unique set of assets, capabilities, positions and environmental circumstances that enable an organisation to consistently outperform its competitors in its chosen strategic outcomes" (Angwin, et al., 2007:118).

signals to the 'mainstream', that there is market share and economic returns to be had through behaving and offering products and services in a particular way. In light of this, it can be seen that the organisations need a mainstream against which to define themselves as much as the mainstream needs these organisations to help create new frontiers of competition.¹²⁹

While growth, through a purely financial lens, can be seen as both enhancing organisational survival and creating impetus for others to move, the interviewees are also clear that growth is a mixed blessing both in terms of how growth will impact their organisations' cultures but also because growth will create a larger entity level environmental footprint. In this regard, the interviewees' views on growth are in some manner aligned to the views of growth which Gladwin, et al., (1995) assign to the sustaincentrism paradigm, where the role of growth is 'mixed/modify'. Within the sustaincentrism paradigm Gladwin, et al., (1995) outline that growth can have useful outcomes such as enabling poverty alleviation but at the same time growth should also be "bounded by ecological and entropic limits" (ibid: 893) of the earth. Thus Gladwin, et al., (1995) are arguing for a balanced view of growth (mixed/modify).¹³⁰

Notions of pioneering status can perhaps reinforce images of the plucky entrepreneur up against the mainstream. However, it is important not to present the interviewees and their organisations as the sole heroes and in so doing ascribing to the interviewees some notion of supernormal qualities that may be ascribed to typical conceptions of heroes. Many of the interviewees make it clear that their organisations are engaged in relationships with customers and employees and the organisations and its actions make sense within a context. For example;

"The great thing with this brand it is sort of self-reinforcing in a very nice way, the beauty with this brand is we do the right thing and people want us to do the right thing, they buy us because we do the right thing" (Company A)

¹²⁹ A similar argument is made by Smith (2003) who describes how because large, established organisations need to maintain financial returns they are bound into existing modes of operation. Hence exploiting new modes of operation, products or services is resisted until such time as the new basis of competition has been established by new market entrants.

¹³⁰ This is counter to the views of growth within technocentrism and ecocentrism which assume that either growth is good/necessary (technocentrism) or growth is bad and should be eliminated (ecocentrism).

"Some of it we can do it because we, as an organisation we come from within the issue. I'm always careful when I talk to other people to say, look this works in our context with this community" (Company D, Paul Ellis)

Further, the interviewees highlight how their adventurousness is limited by what customers will buy. Interviewees highlight how they cannot be too idealistic in their offerings, for example;

" if you just sit down and write down every environmental concern that it would be nice to subscribe to and you just do it on a kind of general thinking way, then you're only certainly going to write down something very idealistic that will end up being exactly that, very idealistic and insignificant and therefore actually not achieve very much" (Company C)

"you can put your green issues very much up front but if you're running a business you've still got to run it as a business and you've still got [to] sort of aim for your markets and you can't, in a way, be as completely purist as some people might want you to be ... you can't go right out there too far, otherwise you just end up completely limiting yourself" (Green Stationery Company, Jay Risebridger, Founder)

The quotes above demonstrate the view that an organisation needs to ensure that a product or service is acceptable to a reasonable number of customers who are willing to pay for the service, clearly a self evident claim. However, the quotes also demonstrate that customers are perhaps not that adventurous in their willingness to purchase the greenest offering. In this regard the quotes indicate that customers are offered the products and services that they, customers, are willing to pay for. Thus perhaps slightly counter to Vandermerwe and Oliff's (1990) view from surveying chief executives that "customers drive corporations green" (ibid: 10). Perhaps customers help enable green offerings and organisations but they also hinder these offerings and the ability of some organisations to become greener, faster. Therefore, although the interviewees may welcome a view that they are pioneers, it is also clear that they are pioneers in so far as they are allowed to be. As such the positive connotations that accompany a term such as 'pioneers' should not be solely attributed to the interviewees but also more widely, as pioneering customers buy pioneering products and services. However at the same time it would

appear that the interviewees' perceptions of what customers will accept results in some restraint of how far reaching the pioneering status can be.¹³¹

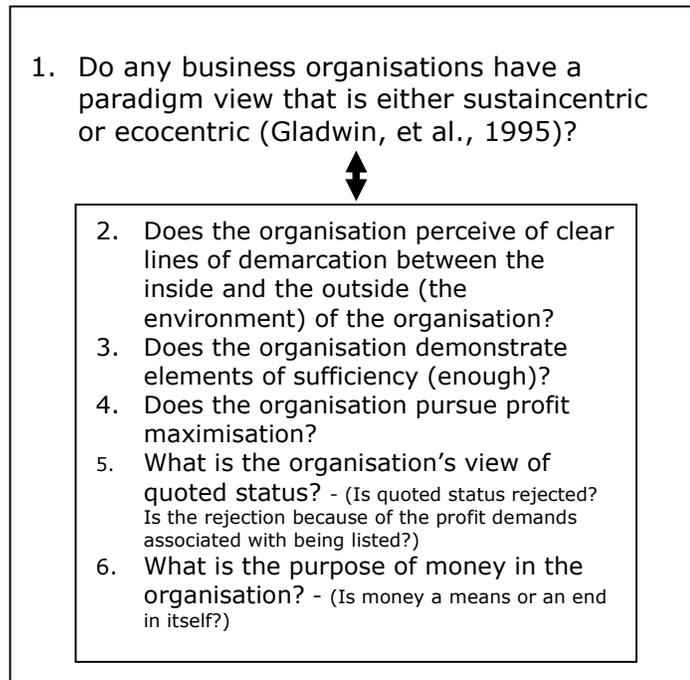
The interviewees' expression of how their organisations are, to a degree, captured by expectations raises an interesting point for when organisations, such as those interviewed are bought by a larger, perhaps quoted and apparently less environmentally focused organisation. Company A is a subsidiary of a large quoted organisation and the interviewee from Company A (the managing director) had originally worked for the parent organisation. The interviewee from Company A viewed the brand as being self-reinforcing and this suggests that the parent company has, in buying Company A, trapped itself into a particular mode of operation regarding Company A's offerings. In this regard while being purchased by a quoted parent organisation might typically be viewed as a poison chalice by some of the interviewees, the possibility exists that such a move could create change in the parent organisation towards more responsible behaviour. Thus to lean on some of the terminology associated with corporate takeovers, perhaps a poison parent can be partially purified by a principled pill. Thus an area for future research could be to investigate whether the interviewees' organisations could realise greater change by being bought by a larger parent. Moreover, investigating whether this has happened in the past would be a productive avenue of investigation.

¹³¹ This hindering aspect from customers is also echoed by Marcus and Fremeth's (2009) observation that "Being early to market does not guarantee success if firms are too far ahead of consumer tastes" (ibid:23).

6.3 Reflecting on the Research Questions

The six research questions¹³² at the core of this study are reproduced in Figure 6.1. As previously mentioned in chapters four and five, the interviewees' responses only allowed a partial understanding of whether question one is answered; thus, a secondary piece of analysis that can be found in chapter seven was conducted to answer this research question more fully. Notwithstanding this secondary piece of analysis, indications from the results so far such as: the interviewees' mixed views on growth and their views on the relationship between the environment, society and the economy and how the environment is entwined as opposed to a separate category to deal with¹³³ point towards at least some of the interviewees operating to a sustaincentric or ecocentric paradigm.

Figure 6.1: Research Questions



These tentative indications regarding the interviewees evidence and research question one being positively answered is also supported by other interviewee views such as: concerns about maintaining the culture of the organisation as it grows, the interviewees' desire for robust discussions throughout the organisations, how long term views inform the purpose of their organisations and the examples of low earning differentials and the desires for non-hierarchical structures.¹³⁴ As well as

¹³² The research questions are developed in chapter two. As outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being 'led' by the researcher.

¹³³ See Chapter 5, section 5.2 for the interviewees' views.

¹³⁴ The interviewees' views regarding non-hierarchical structures and the maintenance of informality in the organisations is a finding echoed by Egri and Herman (2000). Where Egri and Herman (2000) highlight that "green businesses are more likely to have flat informal and flat organisational structures" (ibid:596).

commentary from Shrivastava (1995a) that ecocentric organisations are “appropriately scaled, provide meaningful work, have decentralized participative decision making, have low earning differentials among employees, and have non-hierarchical structures” (ibid:130).

6.3.1 Research Question 2 (Clear Lines of Demarcation)

With regard to the second research question, there is some evidence that the interviewees’ do not see clear lines of demarcation between the inside and the outside of the organisation. This evidence comes from how some of the interviewees expressed how, for example, a more holistic view of the environment, economy and society interaction needs to occur and any lines of demarcation are artificial. Moreover it also arises from interviewees’ comments regarding their attachment to their organisation, their love for it, how the environment is part of their DNA and how for some they operate from a “platform of soul” (Company E, Eoin Cox, Founder). These aspects reinforce that the interviewees and by extension their organisations are bound into realising environmental and social outcomes. In this regard the interviewees are demonstrating a lack of clear lines of demarcation and perhaps more permeable boundaries than might conventionally be conceived. This lack of clear lines of demarcation might also be described as embeddedness¹³⁵ (Granovetter, 1985 & 2005; Uzzi, 1997). It also raises a reflection point back to mainstream management literature, if the arguments of Gladwin, et al., (1995) are accepted. First it challenges conventional management theory in so much as it does not indicate a “fractured epistemology, which separates humanity from nature” (Gladwin, et al., 1995:874). Second it challenges, perhaps simplistically, a

A perhaps not unsurprising finding given that the majority of Egri and Herman’s (2000) research sample had less than 25 employees and similarly 73% of the research sample for this study are organisations with less than 50 employees.

¹³⁵ Granovetter (2005) explains embeddedness in the following way; “Much social life revolves around a non-economic focus. Therefore, when economic and non- economic activity are intermixed, non-economic activity affects the costs and the available techniques for economic activity. This mixing of activities is what I have called ‘social embeddedness’ of the economy - the extent to which economic action is linked to or depends on action or institutions that are non-economic in content, goals or processes. [Further] among the kinds of embeddedness that sociologists have discussed are embeddedness of economic action in social networks, culture, politics and religion.” (Granovetter, 2005:35). Whiteman and Cooper (2000) have made an argument for ecological embeddedness based on their ethnographic study of a Cree tallyman in Northern Quebec. They argue that ecological embeddedness is to personally identify with the land, adhere to beliefs and assumptions of ecological respect, reciprocity, and caretaking, to actively gather ecological information and to be physically located in the ecosystem. These components of ecological embeddedness are difficult to ascribe, as Whiteman and Cooper (2000) offer them, to the interviewees. However, the theme of having some notion of connection to the environment is clear from the interviewees’ responses.

conventional principle of strategy. Grant (1995) highlights a principle of strategy is "insightful understanding of the external environment" (ibid:11). With this principle, Grant (1995) is reinforcing the creation of a separation or boundary between the organisation and the environment in which it operates. However, if as indicated, interviewees' do not perceive of distinct boundaries then at the least, this principle could perhaps be refined for the research sample in this study and defined as 'insightful understanding of all the exchanges (environmental, social and economic) an organisation is involved with'.

6.3.2 Research Question 3 (Elements of Sufficiency)

As section 5.4.1 of chapter five highlights many of the interviewees offer examples of pursuing sufficiency, eg; seeking minimal rates of return, delisting suppliers and not selling particular products to name a few. These examples come across as purposeful decisions to pursue a particular course of action as opposed to the satisficing outcome resulting from cognitive limits and thus an inability to maximise because of bounded rationality (Godfrey, 2005; Shafritz & Ott, 1999). Hence in this regard the research question is answered positively, particularly in relation to realising a sufficient level of financial return when balanced against the other priorities of the organisations. Whether this is akin to the 'strategic satisficing' concept offered by Parrish (2007), where levels of both qualitative and quantitative outcomes that are deemed satisfactory are pursued and one goal is not elevated above others, is less clear. However, the comments and examples do indicate that the interviewees are balancing the goals of the organisation and maintaining a focus on mission. Thus it would appear, in summary, that the interviewees' responses provide a positive answer to research question three and that to some degree, strategic satisficing (Parrish, 2007) is occurring.

6.3.3 Research Question 4, 5 & 6 (Profit Maximisation, Quoted Status and Purpose of Money)

As highlighted previously in the literature review (chapter two) and showed figuratively via Figure 2.3, research questions four, five and six are linked, hence these three research questions will be dealt in one discussion. The interviewees'

views captured in the previous chapter (chapter five) in sections 5.3, 5.3.1 and 5.5 make it clear that the interviewees do not pursue profit maximisation, generally reject quoted status because of the profit demands of being listed and view money as a means to an end, not an end in itself. Further support regarding these questions is also apparent in a previous discussion in this chapter concerning mission and money (section 6.1) and the section above (6.3.2) regarding sufficiency. These discussions highlight and reinforce how for the interviewees' the mission is the purpose and money is a secondary concern.¹³⁶ In this regard the interviewees' organisations do not subscribe to the conventional narrative promoted by the media and textbooks that businesses are focused on profit maximisation (Collison, 2003; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Morgan, 2006; Shrivastava, 1995a & c; Purser, et al., 1995; Whittington, 1993). However, because many of the organisations interviewed are privately held organisations this result may not be a surprise, particularly as Siegel (2009) highlights private organisations are "under no obligation to maximise profit" (ibid:5). While this may be the case for private organisations, paradoxically, Whittington (1993) highlights, citing Marris's (1964), Holl (1977) and Lawriwsky (1984) in support that "managerially controlled enterprises tend to maximise growth rather than profits" (Whittington, 1993:51), whereas owner controlled organisations will opt for a moderate growth/high profit strategy (Whittington, 1993). Although the studies Whittington cites are focused on large corporations, the views gathered in this study would appear to contradict this claim regarding owner operated organisations maximising profit at the expense of growth and perhaps highlight the converse. Further, the interviewees are clear that they welcome the growth of their products and services, thus indicating that they are perhaps more supportive of a high growth/moderate profit strategy, that is more akin to the strategies Whittington (1993) cites as being adopted in managerially controlled enterprises.

¹³⁶ As highlighted in chapter 5, section 5.3, two interviewees (Terra Plana and Company B) expressed views that their perceptions of the finance functions of their organisations are focused on monetary concerns. For example; "I've heard somebody in finance say oh why don't we cut retail off and just focus on wind farms cos they make more money. (laughs) Do you know, I say 'Well, you know, that's not what we're here for, so forget it'" (Company B, Dale Vince). The primacy given to money by the finance director or the finance team perhaps highlights the effects of an accounting/business education, which is arguably primarily focused upon educating individuals to understand companies through a monetary lens. This may be indicative of any education in a functional specialism, where for example, marketing professionals might view a business through a marketing lens. More widely this perhaps points to ensuring education for business professionals incorporate the wider systemic views inherent in sustainability.

Similarly that the interviewees do not pursue profit maximisation, are sceptical of quoted status and see money as a means indicates that the interviewees' organisations are aligned to values beyond money. Thus the interviewees' views indicate that the objectives of their organisations are beyond the efficient allocation of resources to realise profits but rather, more aligned to objectives such as quality of life or ecological integrity. These are objectives Gladwin, et al., (1995) ascribe as being the primary economic and psychological objectives of the sustaincentric or ecocentric paradigm. Thus there is another indication that the organisations maybe sustaincentric or ecocentric in their paradigm views.

6.4 Reflecting on Other Views raised by the Interviewees

Outside of the research questions, other views expressed by the interviewees include: (1) how for some they might expand their organisations by creating "regional units" (Company D, Paul Ellis, CEO) or "factories in a box" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness), (2) the love and affinity the interviewees had for their organisations and how they believed others in their organisation also had this and (3) how they thought their products in customers hands would create greater environmental awareness in customers and thus change customers purchasing habits towards 'greener' products and services.

Taking each of these areas in turn, the concept of the organisations growing by creating regional/autonomous units in new areas is perhaps a typical form of expansion for any business, particularly if considering a multinational organisational structure. However, the interviewees' views are more subtle than this, in that they did not wish to create multinationals with perhaps some centralised oversight. Rather, the interviewees are alluding to more autonomous units of self-organisation which allows a continuation of the culture and their "way of working" (Company D, Paul Ellis, CEO) while still being local to the area the business services. This model of expansion appears to be similar to Morgan's (2006) discussion of holographic organisation where "it is possible to grow while staying small" (Morgan, 2006:102). Further, the resulting whole in parts organisation does not have to be a collection of clones, rather the organisation can be "holographic yet differentiated" (Morgan,

2006:106), ie similar sizes, similar operating principles but also local and differentiated.

The second area, the love interviewees had for their organisations and how they believed others in their organisations also shared this love for the organisations. That the interviewees had this love or thought others had it is not particularly surprising given individuals are likely to self-select, to a certain degree, the organisations they wish to join. Moreover, if it is accepted organisations are held together psychologically (Katz & Kahn, 1966) and they are "cognitively biased" (Whittington, 1993:112 citing Cyert and March, 1963). Then the expression by senior individuals (as per the interview sample) of love for the organisation and their assumption that others have it, is again not particularly surprising, as those that don't love the organisation may suffer some form of bias. Nevertheless that the interviewees mentioned the term love, reinforces a blurring of boundaries and a degree of embeddedness. Outside of these aspects, it has been noted elsewhere that environmentally orientated organisations have relied upon people's love for the organisations' missions. For example, John Sawhill, the president and CEO of the Nature Conservancy has highlighted that environmentally organisations have relied upon "people's love for the organisation's mission rather than on their career ambitions or financial incentives" (Egri & Herman, 2000:579 citing Howard and Margretta, 1995:111). Further, "Sawhill noted that clarity about and commitment to core values permitted high levels of individual autonomy" (Egri & Herman, 2000:580). Consequently some of the other aspects that arose from the interviews, such as informality, low levels of hierarchy and the ability to attract individuals that might command a higher salary elsewhere are, to a degree, caught up in this aspect of having a strong affinity/love for the organisation and its mission. Moreover, by extension, these results point towards a lesson for other organisations in that engendering affinity to an organisational mission can avoid hierarchy and reduce labour costs.

The third and final area concerns the interviewees' assumptions that their products and services, when bought by or used by customers, will change customers' perceptions of the environment and in effect make their customers more environmentally aware and thus (maybe eventually) change society. For example:¹³⁷

¹³⁷ For similar quotes, see chapter 5, section 5.1.2

[talking about what a customer might do after having bought their product] "[they] might start getting interested in the background, why do these bloody guys do this? And one by one she's becoming light green and after a while she's expanding her attention to other things. She might think about, well what's this stuff I have in the food? Especially in the UK you have these brightly coloured jellies everywhere, she might think well this doesn't seem to be cut from a tree so what's in it?" (Ecover, Peter Malaise, Concept Manager)

The interviewees of this study are not alone in believing they are creating change in this manner, as another study on hybrid organisations that pursue environmental missions by Boyd, et al., (2009) highlights a similar claim by its research subjects. This type of change has been termed "positive spillover" (Crompton & Thorgersen, 2009:6), where because of one purchase of an environmental good, the assumption is that the customer will then move towards examining all that they do and ultimately make "more ambitious behavioural change" (Crompton & Thorgersen, 2009:6). However, Crompton (2008) and Crompton and Thorgersen (2009) highlight a positive spillover effect is only realised if a customer is buying a product for intrinsic as opposed to extrinsic values (such as being seen to have the latest fashionable 'green' product). Similarly, it is argued that spillover is dependent upon whether the product or service is advertised using environmental credentials or other aspects such as being fashionable or saving money. Positive spillover is more likely to occur if the product is advertised using environmental credentials (Crompton, 2008; Crompton & Thorgersen, 2009). Consequently, while the interviewees' claims may have some validity, their claims cannot be accepted fully. As spillover depends on both the motivations of the individuals buying the products and services and also the messages used to advertise those same products and services.

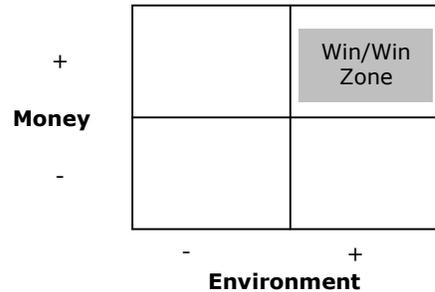
6.5 Conceptual Model regarding the Zone of Operation of Interviewees' Organisations

This section will introduce a conceptual model for the zone of and potential zone of operation of the organisations interviewed. This conceptual model attempts to summarise the research findings. It was formed from the conjunction of two

aspects. First the researcher's many attempts to summarise the findings of the study for individuals who were pressed for time. Second the researcher being cognisant of the apparent preference for conceptual models to aid communication in management education.¹³⁸

Simplistically the organisations could be said to be operating in the conceptual space (as indicated by the shading) of the win/win zone between environment and profit (Figure 6.2). However, it would appear to be inappropriate to view their zone of operation as something akin to the exploitation of 'environment' to realise

Figure 6.2: 2X2 Environment vs Money
(Too Simple?)



'money,' not least because the interviewees' offer views which place their reasoning beyond a simple financial calculation. Further the interviewees' views on for example sufficiency highlight that in terms of their financial reasoning, their reasoning is more nuanced than a simple win/win, as a win/win indicates little about the size of the win.¹³⁹ Likewise a positive environmental outcome says nothing about how the interviewees' understand that their organisations have an environmental burden and potentially indicates the opposite; ie that there is no environmental burden.

As a result of this research, a potentially more appropriate conceptual model for depicting the relationship between the environment and money and the zone of operation of the interviewees' organisations is offered, as depicted in Figure 6.3. Although as with Figure 6.2, this conceptual diagram suffers with putting the environment and money on perpendicular axes, thus indicating that there is no relationship between these variables,¹⁴⁰ a situation that is challenged if the concept of one material earth is accepted. The three by three matrix appears to capture the position of the interviewee organisations more appropriately for a number of reasons. First the money axis highlights a gradation of maximum return, enough (or sufficient) returns and too little. Second the environment axis highlights a gradation

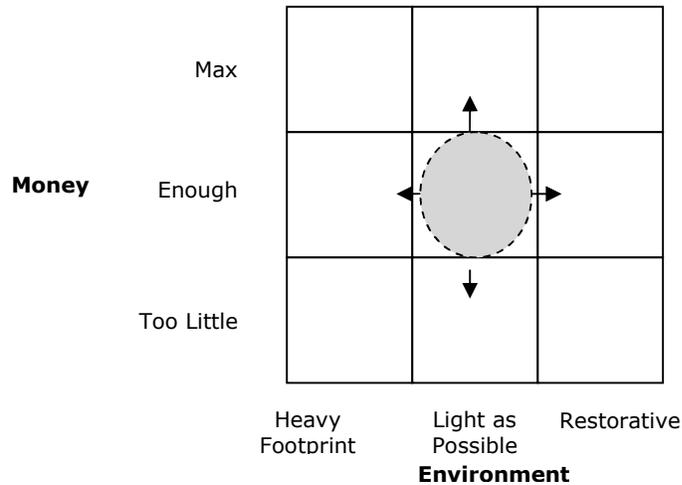
¹³⁸ For example the growth share matrix, the strategy as intention and anticipation matrix (Cummings & Wilson, 2003) or the strategy as orientation and animation matrix (Cummings & Wilson, 2003) to name a few.

¹³⁹ See Spence and Gray (2007) for a discussion on the win/win scenario.

¹⁴⁰ See McKiernan (1992) for a discussion on this point.

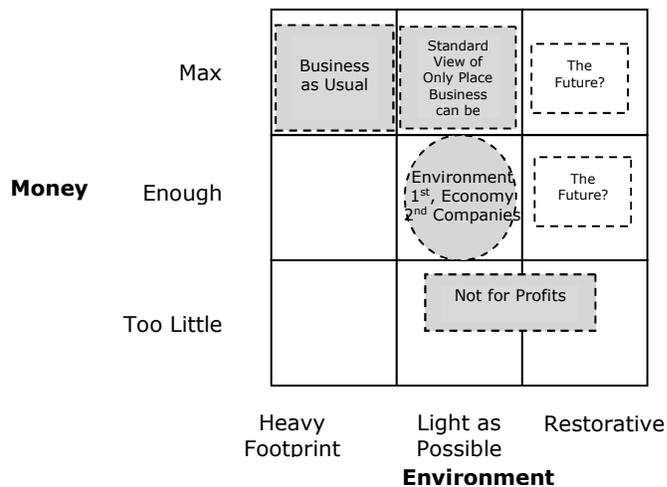
of organisations and their products and services having a 'heavy' environmental footprint versus as 'light as possible' versus being 'restorative', where restorative is aspirational.¹⁴¹ Using this matrix the zone of operation of the organisations interviewed could be the middle cell, a position that is consistent with their views regarding the understanding of their organisation its impact and its priorities regarding the seeking enough money as opposed to maximum returns.

Figure 6.3: 3x3 Environment vs Money (Zone of Operation of Interviewees' Organisations)



By extension, this matrix could also be used to indicate the future zone of operation of either the organisations interviewed (as indicated by the arrows on Figure 6.3) or others, as well as the current zone of operation of for example, the understanding of where more conventional business organisations might operate ('business as usual'), as indicated in Figure 6.4. Although this conceptual model has limitations it does highlight that a more nuanced view of organisations and their operation on a materially closed planet is possible. While at

Figure 6.4: 3x3 Environment vs Money (As is operation and the Future?)



¹⁴¹ Company E, for example, could be argued as being restorative because while the organisation uses timber products, it is also involved in woodland restoration.

the same time being because of its simplicity, a useful tool for individuals to utilise in considering how they might conceptualise the operation of organisations in the future.

Summary and Conclusions

This chapter has focused on discussing the key messages from the interviews: mission and money, pioneers, how the interviews inform the research questions and interview narratives regarding growth by regional unit, love and creating change. Outside of this, the chapter has also offered a conceptual model for the zone of operation of the interviewees' organisations. Taking each of these areas in turn, the discussion of the interviewees' organisations operating to mission and money was an attempt to capture their mode of operation and encapsulate all of their views. This discussion highlighted that although the organisations operating to a principle of mission and money could in some respects be seen as a statement of the obvious; there are subtleties in their views, in that the mission appears to be primary and money secondary, where money is a means to realise the mission with the organisation being a tool for delivering change. In this regard, the intention of the moniker of 'mission and money' was to emphasise the primary importance of the mission relative to money while at the same time the 'and' was used to indicate that economic viability is necessary for continued operation. This discussion also drew out that the interviewees' views on their organisations being a tool indicated that the interviewees were perhaps not totally orgocentric (Egri & Pinfield, 1999) in their views and that they had an expanded notion of self interest. Through this discussion an aphorism was offered regarding the organisations, that of the organisations being "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197).

The second area explored was the notion of the organisations being pioneers. This discussion highlighted that this is not an unusual aspiration for newer organisations (Russo, 2003) or those operating with environmental or socially orientated missions (Isaak, 2002). It was also highlighted that this pioneering view is consistent with the concept of competitive advantage (Grant, 1995) but that it also carries with it the seeds of its own destruction (Morgan, 2006). Further it is a position that is reliant

on the organisations being seen to challenge a mainstream. Thus the organisations are in a relationship that is bound to a conceptual 'other' that is mainstream business. Also within this area, the interviewees' views on growth were rationalised as not only being an enhancement to economic survival but also as creating an impetus for the mainstream to move. At the same time, the interviewees' views on growth were highlighted as being indicative of a sustaincentrism paradigm assumption (Gladwin, et al., 1995). The final area discussed within this area explored how the interviewees while perhaps being perceived as pioneers are not the sole heroes and their customers also help to both enable and hinder movements towards 'greener' products and services. Consequently it was argued axioms such as "customers drive corporations green" (Vandermerwe & Oliff, 1990:10) cannot be simply accepted. There needs to be recognition that many actors, not just managers and customers, are involved in the strategic agency of an organisation.

The third area of this chapter explored how the interviewees' comments informed the six research questions at the core of this study. This area contained some brief discussion of how the interviewees' mixed views on growth, the relationship between the environment, society and the economy, the secondary nature of monetary concerns, the informality of their organisations and their mission statements (Shrivastava, 1995a) indicates that they might be sustaincentric or ecocentric. In exploring the second research question (clear lines of demarcation between the inside and outside of the organisation), it was highlighted how the interviewees' do not perceive of clear lines of demarcation and their views also echo Granovetter's (2005) concept of the embeddedness of economic activity while challenging conventional notions of strategy (Grant, 1995) which reinforce the creation of an external environment that is outside of the organisation. With regard to the third research question (sufficiency) it was highlighted that the interviewees did demonstrate examples of sufficiency. With reference to the final three research questions it was highlighted that the interviewees do not pursue profit maximisation, generally reject quoted status and view money as a means, with a key point in this section being that the findings from this study challenge findings brought forward by Whittington (1993) that owner controlled organisations tend to maximise profit at the expense of growth.

The fourth area reflected on other views brought forward by the interviewees and highlighted how some of the interviewees' views are reflected by the literature and not to be unexpected. For example it was highlighted that informality and low levels of hierarchy are perhaps self realising in organisations where individuals have a strong commitment to the organisational mission (Egri & Herman, 2000). More pertinently, this area also exposed that the assumption of the interviewees' that their products and services will create change in customers' perceptions is challenged by Crompton (2008) and Crompton and Thorgersen (2009) and is dependent upon whether individuals buy for intrinsic or extrinsic reasons.

The fifth and final area offered a conceptual model for considering the zone of operation of the organisations interviewed. Here it was highlighted that although the conceptual model is flawed, it may be a useful tool for individuals to consider using when developing strategic direction. Furthermore like all models, although limited, perhaps its greatest use is as a tool to foster thinking about future options (Cummings, 2005).

To close, this chapter attempted to not only discuss the interviewees' views, it has also attempted to summarise their views. At the same time it has also intended to demonstrate that the interviewees' views are supported by some of the literature as well as being challenged by and challenging of other aspects of the literature. In a previous report written about this research (Barter & Bebbington, 2010)¹⁴² the organisations were summarised via the use of the following interviewee quotes as being a potential 'future normal',¹⁴³ that summary is also, perhaps, appropriate here.

"The traditional kind of thinking mind does not live here very easily" (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness)

¹⁴² See Appendix 6 for a brief discussion of this report and its contribution relative to this thesis.

¹⁴³ In this context, 'future normal' is a term that attempts to capture the key message of the three quotes immediately following the phrase. Notwithstanding the three quotes, the term 'future normal' also attempts to capture the general tone of the interviewees comments, as discussed in this chapter and the previous chapter, chapter five. While the organisations interviewed are not the answer to environmental and social degradation their commitment to realising more environmentally benign and socially positive outcomes indicates that if all organisations operated as the interviewed organisations do, quite apart from there being little need for this research, the environmental crisis and social degradation might not be as bad as they currently are. In this regard, if the environmental crisis and social issues continue to get worse through time, then it is likely that organisations that offer more benign and/or positive outcomes will be sought out, founded or their models of operation copied. In this regard, the organisations interviewed do perhaps offer a glimpse into how mainstream business could be conducted in the future. Thus the interviewed organisations current mode of operation potentially represents a 'future normal'.

"now people say that's green and, and ethical, and I'm like oh well I'm not sure it's either, but I think it should be normal behaviour to try and run your business in as good a way as possible. So, you know, it's not normal to be a polluter or, or at least it shouldn't be. So that's why I'm slightly nervous about all this stereotyping, and you know you're green in your articles, that kind of makes it sound like that's odd behaviour and what I'm trying to achieve is to make that normal" (howies, Dave Heatt, Co-founder)

[...talking about sustainability and the organisation] "Sometimes when I talk to people I realise that for us what's normal is not normal for everybody else. I just realise how far we've come and how much we know. But I just do think that it isn't weird and it is just, we're just slightly in the future" (BioRegional, Sue Riddlestone, Co-founder)

Chapter 7

Data Display/Interpretation (2)

Looking for an Ism

Introduction

This chapter attempts to address whether the primary research question, do any business organisations have a paradigm view that is either sustaincentric or ecocentric (Gladwin, et al., 1995)? is answered positively. As highlighted in the previous chapter, there is some evidence that interviewees express views that are consistent with some aspects of an environmental paradigm. However, whether the interviewees, and by extension their organisations, accord more broadly with sustaincentrism or ecocentrism requires further analysis. This further analysis, as introduced in chapter four, focuses upon coding the interview transcripts to the assumptions within the paradigm scheme offered by Gladwin, et al., (1995). The chapter begins by discussing the process of analysis conducted on the interview transcripts. Following this, the results of this analysis are displayed and the interview text coded to the Gladwin, et al., (1995) paradigm scheme is discussed. The final section discusses the findings, prior to the chapter being summarised.

7.1 Data Reduction (2)

During the interviews attempts were made to explore whether the interviewees had views consistent with ecocentrism or sustaincentrism. These attempts focused upon questioning interviewees about how they viewed humanity's relationship with nature (for example; does humanity have stewardship responsibilities (sustaincentrism) or is humanity a part of nature with no more importance or responsibilities than any other animal (ecocentrism)?). This question about humanity's relative position to nature resulted in responses that could be seen as evidence that five interviewees are sustaincentric. When this question was coupled with the full flow of the interview, it was hoped it would allow a full exploration of whether the interviewees were sustaincentric or ecocentric in their views. However, as discussed in previous chapters, this hope was not realised with any degree of confidence and thus the separate and systematic analysis supporting this chapter was conducted in order to answer the primary research question satisfactorily. In particular, the transcripts were analysed against the paradigm scheme¹⁴⁴ offered by Gladwin, et al., (1995).¹⁴⁵ This analysis (data reduction (2)) involved using the NVivo software coding tool and creating 90 themes (30 themes per paradigm of technocentrism, sustaincentrism

¹⁴⁴ The Gladwin, et al., (1995) paradigm scheme can be found in Appendix 2, section A2.7, Table A2.6.

¹⁴⁵ A brief summary of the paradigms offered by Gladwin, et al., (1995) can be seen in Figure 7.1.

and ecocentrism as per the Gladwin, et al., (1995) scheme) within it. The titles of the themes were the constituent assumptions under each paradigm as offered by Gladwin, et al., (1995). Each interview transcript was then analysed to understand whether interviewees expressed views that were consistent with any of the assumptions in the three paradigms. This process resulted in 168 pieces of text from the interview transcripts being coded to 18 themes. On average, each transcript had text linked to five themes relative to a maximum of 11 themes and a minimum of two.

Figure 7.1: Brief Summary of Technocentrism, Sustaincentrism and Ecocentrism (Gladwin, et al., 1995)

(1) Technocentrism is focused on precepts such as: the Earth is an inert machine to be exploited; humans are disassociated from the earth; and that nature has no inherent value other than that perceived by humans.

(2) Sustaincentrism takes a position that is between technocentrism and ecocentrism. It views the Earth as a life-support system that is to be treated as a home rather than as something dead or alive; it believes that humanity is interdependent with the Earth and that nature has inherent value.

(3) Ecocentrism takes a position that is at the opposite end of the spectrum to technocentrism. It assumes that: the Earth is alive and is the key to the web of life; that nature has inherent value; and that humans are an intrinsic part of nature.

This approach to data reduction appears to be relatively unique and transparent compared to some other studies that discuss or use paradigms as part of their conclusions but also did not utilise a questionnaire (Halme, 1996 and Brych, et al., 2007). For example, Halme (1996) argues that the case study companies she researched shifted in paradigm and the shift was similar to them shifting between the 'frontier economics' and 'resource management' paradigms as offered by Colby (1991). However, Halme (1996) offers no clear explanation supporting this claim by, for example, showing how Colby's (1991) original framework maps to the data gathered. Similarly Brych, et al., (2007) offer no clear explanation covering process for how they concluded from their cognitive mapping of interviewees that some interviewees are ecocentric, technocentric or sustaincentric as per the Gladwin, et al., (1995) scheme. Consequently, the method of this study (explicitly coding the interview transcripts against the constituent assumptions of the Gladwin, et al., (1995) scheme) appears to be relatively unique and transparent compared to some other studies. Nevertheless, while this method may be relatively unique and transparent it is limited by the nature of the Gladwin, et al., (1995) paradigm scheme.

In particular, Gladwin, et al., (1995) do not clearly define the assumptions within the scheme, rather only a general description is given. For example, in discussing the ten ontological and ethical assumptions under sustaincentrism, the assumptions are discussed in several paragraphs (see Figure 7.2 for a truncated example). As such in identifying whether an interviewee's views are consistent with a particular paradigm assumption there is a degree of interpretation on behalf of the researcher, as the researcher draws from the

paragraph as opposed to a list of specific definitions.¹⁴⁶ For example, in the case of the humans and nature assumption within the sustaincentric paradigm the understanding of this assumption is drawn from Gladwin, et al.,'s (1995) description of humans being "neither totally disengaged from nor totally immersed in the rest of nature" (ibid: 890) and that humans are "part of the biosphere in organic and ecological terms...[but] above the biosphere in intellectual terms" (ibid:890).¹⁴⁷

Figure 7.2: Example of Gladwin, et al., (1995) discussing a range of assumptions

"Sustaincentric ontology and ethics. The earth is humanity's home, kept clean, healthy, and properly managed for the sake of human survival and welfare. There are no wholes and no parts anywhere in the universe; there are only "holons" (i.e., whole/parts). The nested holons within this multilevel "holoarchy" change at varied rates, communicating each other in both an upward and downward fashion. Economic and human activities are inextricably linked with natural systems. Because dynamism and cyclicity are fundamental, synthetic, nonlinear, and intuitive modes of understanding are required.

Humans are neither totally disengaged from nor totally immersed in the rest of nature. Although they are part of the biosphere in organic and ecological terms, humans are above the biosphere in intellectual terms. The biosphere is more fundamental for existence than humans, yet humans are more significant than the biosphere because they embrace a much deeper and greater wholeness. The crucial consequence is that humans have become, by the power of a glorious evolutionary accident called intelligence, the stewards of life's continuity on earth. We did not ask for this role, but we cannot abjure it. We may not be suited for it, but here we are..." (Gladwin, et al., 1995: 890)

It is worth noting that it is perhaps intentional on the part of Gladwin, et al., (1995) that there is an interpretive space for researchers in the use of their paradigm scheme. As Gladwin, et al., (1995) discuss their paradigm scheme in terms where they emphasise that it is a "schematic, [and] not photorealistic" (ibid: 881) and their intent is that the scheme is "heuristically useful" (ibid: 881). Further Gladwin, et al., (1995) highlight that the argument they are making regarding their scheme is one of "coherent persuasiveness" (ibid: 882) as opposed to one based on "inherent truth

¹⁴⁶ Notwithstanding that there is interpretation of the interviewees' comments as well. Thus two areas of researcher interpretation (subjectivity) are brought into the analysis; from the scheme to the interview text and from the interview text to the scheme.

¹⁴⁷ See highlighting in Figure 7.2.

[or] rightness" (ibid: 882). Thus a lack of exactitude is perhaps to be expected as it would appear that Gladwin, et al., (1995) are intent on leaving space for the reader to interpret via the use of terms such as heuristic, coherent and persuasive.

Nevertheless, although there is a lack of definitional clarity for each and every assumption, descriptions that informed many of the paradigm assumptions could be identified. After having identified descriptions that informed the assumptions the interview text was reviewed and if appropriate text that reflected the assumption was coded to the particular assumption(s). Once the coding was completed, the coded text was analysed against the seven interview attributes in order to identify any patterns, this analysis revealed little, however, examples of it can be found in Appendix seven.

7.2 Data Display/Data Interpretation (2)

This section outlines how the interview transcripts have been coded to the Gladwin, et al., (1995) paradigm scheme and it begins by discussing the coding by number of interviews for the interview sample as a whole (Table 7.1), against the paradigm scheme. This is followed by displaying the coding to the paradigm scheme by number of pieces of text (phrases or sentences) from the interview transcripts (Table 7.2) and discussing the text that was coded. It is worth noting that this second table contains an element of double counting as one interview transcript may have multiple quotes from it coded to a particular assumption within a paradigm. Following these two displays are two further displays that highlight where references from each interview are coded (Table 7.3 and Table 7.4) without the double counting of pieces of transcript text.

Table 7.1 is a reproduction of the paradigm scheme offered by Gladwin, et al., (1995), where each paradigm has 30 assumptions that are subdivided into three groups of ten per paradigm under the headings of: (1) Ontological & Ethical, (2) Scientific & Technological and (3) Economic & Psychological. There are a number of aspects to notice from this display. First the coding and subsequent shading (for accentuation) suggests the interview sample as a whole is predominantly sustaincentric, with 10 assumptions (out of a possible 30) within this paradigm

having text coded to them compared to four assumptions for technocentrism and ecocentrism respectively. Thus it would appear from this display (Table 7.1) that there is evidence to support the contention that there are business organisations that have a paradigm view that is sustaincentric or ecocentric.

A second aspect of this display is that not all of the coding is within sustaincentrism rather it cuts across technocentrism and ecocentrism. This is not to be unexpected, as Gladwin, et al., (1995) highlight that their paradigm scheme has no hard boundaries between each paradigm and the paradigms are not "closed or monolithic" (Gladwin, et al., 1995:881). Further as discussed in chapter six, the organisations interviewed pursue mission and money and work to manage this tension while succeeding in the economy as it is, rather than they may ultimately want it to be. In succeeding in the economy as it is, some existing assumptions about how to operate economically are perhaps appropriate, for example, the interviewees supporting the growth of their organisations. In this regard, that the interview sample as a whole has some coding to other paradigms, particularly economic assumptions within the technocentric paradigm is not to be unexpected.

A third aspect of Table 7.1 is the numbers in bold font. These numbers indicate the number of interviews that had text coded to a particular paradigm assumption, for example, eleven interviews had text coded to the sustaincentrism assumption of interdependence. The numbers also indicate that in total more interviews had text coded to 'economic & psychological' assumptions relative to the 'scientific &

Table 7.1: No. of Interviews Coded to a Constituent Assumption of the Gladwin, et al., (1995) Paradigm Scheme

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchival 2	Heterarchical
5. Humans and nature	Disassociation	Interdependence 11	Indisassociation 2
6. Human role	Domination	Stewardship 13	Plain member 1
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1	Multiscale 5	Indefinite 1
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Scientific & Technological			
1. Resilience of nature	Tough/robust	Varied/fragile	Highly vulnerable
2. Carrying capacity limits	No limits	Approaching	Already exceed
3. Population size	No problem	Stabilise soon	Freeze/reduce
4. Growth pattern	Exponential	Logistic	Hyperbolic
5. Severity of problems	Trivial	Consequential	Catastrophic
6. Urgency of solutions	Little/wait	Great/decades	Extraordinary/now
7. Risk orientation	Risk taking	Precaution	Risk aversion
8. Faith in technology	Optimism	Scepticism	Pessimism
9. Technological Pathways	Big/centralised	Benign/decoupled	Small/decentralised
10. Human vs Natural Capital	Full substitutes	Partial substitutes	Complements
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 19	Ecological integrity
2. The good life	Materialism	Post materialism 5	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 16	Green economy 15	Steady state
5. Role of growth	Good/necessary 8	Mixed/modify 13	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 4	Bioregional
10. Political structure	Centralised 7	Devolved 6	Decentralised 2

technological' or 'ontological & ethical' group of assumptions. Further within the 'economic & psychological' assumptions many of the interviews were coded to both sustaincentrism and technocentrism. That more interviews had text coded to the 'economic & psychological' assumptions relative to the 'ontological & ethical' assumptions is again not to be unexpected given the focus of the interviews was on how the organisations conducted their business.

A fourth aspect is that not all of the assumptions had text coded to them, again this is not to be unexpected given the interview focus and that the coding of the interviews to the paradigm scheme was never meant to be an exercise in coding text to each and every assumption. However, notwithstanding the interview focus, the non coding to an assumption occurs for two primary reasons, (1) the assumption was not discussed or (2) researcher caution regarding interpretation of the interview text. Taking each assumptive grouping in turn, the non coding will now be discussed.

In the 'ontological & ethical' group of assumptions there was no coding to assumptions regarding a metaphor of earth, perception of earth, system composition, value of nature, ethical grounding or logic/reason. From the interviewer perspective questions regarding these assumptions were not asked and thus the lack of coding is easily explainable. However, beyond this simplistic reasoning the absence of coding also highlights how these assumptions were not discussed explicitly by the interviewees. With hindsight this is an expected result as interviewees are unlikely to bring forward, unprompted, their 'ontological & ethical' assumptions regarding, for example, their metaphor for the earth. Nevertheless the lack of discussion aside, it is worth highlighting that a position on some of the assumptions could have been deduced for some of the interviewees. However, rather than attempt to deduce a position for an interviewee, researcher caution regarding stretching interpretation beyond that which (in the researcher's opinion) could be reasonably and transparently defended has come to the fore. For example, when discussing the relationship between humans and nature, the interviewee from Company E (Eoin Cox, founder) described his relationship with nature as one of being "umbilically attached". By extension this phrase could perhaps be extended to surmising that Eoin Cox's metaphor for the earth is one where the earth is a mother (an ecocentric assumption). However, within the context of the interview, the discussion with Eoin Cox was focused on the relationship between humans and

nature not the interviewee's metaphor for the earth. Thus text such as "umbilically attached" was coded to indisassociation (an ecocentric assumption regarding the humans and nature relationship) as that position can clearly be established within the context of the discussion.

Turning to the 'scientific & technological' assumptions grouping it can be seen that no text was coded to these assumptions. Simplistically, this occurred because these assumptions were not discussed either by the interviewer or interviewee. However, beyond the simple explanation, it can be seen that these assumptions are invariably focused upon topics of whether the environment is under threat, how to resolve issues, the severity and urgency of problems, risk orientation and faith in technology. Referring back to the purpose of this research, the study's intent was to research organisations that had an environmentally orientated mission. As such implicit to this focus is that there is an environmental problem and this problem is an accepted truth of the interviewees.¹⁴⁸ Consequently, within the context of the interviews and this study, that there is an environmental issue was accepted and thus from the interviewer and probably the interviewee perspective as well, the metrics of the environment issue did not need discussion, indeed this would have detracted from the focus of the study. Thus, given the interview focus, that the interviewees did not bring forward a discussion of any of these areas, unprompted, reveals, in the researcher's opinion, little. Nevertheless as with the other non-coded assumptions a position could potentially be deduced from the full range of an interviewee's discussion. However, as none of the 'scientific & technological' assumptions were discussed explicitly, researcher caution and a focus on maintaining transparency means that positions were not deduced. Notwithstanding this, if the focus of the study had been on the motivations of founders and their assumptions regarding environmental issues, the assumptions of the 'scientific & technological' grouping would provide a useful template from which to explore the assumptions of individuals.

Finally, in the 'economic & psychological' assumptions grouping it can be seen that no text was coded to human nature, poverty alleviation, natural capital or discount rate. This is because these areas were not discussed or explored by either the interviewer or the interviewee. That they were not discussed, again in the

¹⁴⁸ Upon reflection, this accepted truth or assumption would be worthwhile testing in future research.

researcher's opinion reveals little. Further as above it is likely that a position for each assumption could be deduced, however as above, researcher caution means that no such positions have been deduced.

Moving away from the number of interviews coded to an assumption to consider the number of pieces of interview text (phrases or sentences) from the transcripts coded to the paradigm scheme (Table 7.2 below) a similar pattern to that of Table 7.1 is revealed. However, the numbers within Table 7.2 are invariably slightly larger than those in Table 7.1. This is to be expected as an interview transcript may have more than one piece of text from it (a reference) coded to a particular assumption.

Table 7.2: No. of Pieces of Text (Phrases/Sentences) Coded to a Constituent Assumption of the Gladwin, et al., (1995) Paradigm Scheme

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 3	Heterarchical
5. Humans and nature	Disassociation	Interdependence 17	Indisassociation 3
6. Human role	Domination	Stewardship 16	Plain member 1
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicalism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1	Multiscale 5	Indefinite 1
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Scientific & Technological			
1. Resilience of nature	Tough/robust	Varied/fragile	Highly vulnerable
2. Carrying capacity limits	No limits	Approaching	Already exceed
3. Population size	No problem	Stabilise soon	Freeze/reduce
4. Growth pattern	Exponential	Logistic	Hyperbolic
5. Severity of problems	Trivial	Consequential	Catastrophic
6. Urgency of solutions	Little/wait	Great/decades	Extraordinary/now
7. Risk orientation	Risk taking	Precaution	Risk aversion
8. Faith in technology	Optimism	Scepticism	Pessimism
9. Technological Pathways	Big/centralised	Benign/decoupled	Small/decentralised
10. Human vs Natural Capital	Full substitutes	Partial substitutes	Complements
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 28	Ecological integrity
2. The good life	Materialism	Post materialism 5	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 21	Green economy 20	Steady state
5. Role of growth	Good/necessary 8	Mixed/modify 18	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 4	Bioregional
10. Political structure	Centralised 7	Devolved 8	Decentralised 2

7.2.1 Discussion of the Text Coded to the Paradigm Scheme

This section discusses the text coded to the Gladwin, et al., (1995) paradigm scheme. First the interview text coded to the 'ontological & ethical' assumptions will be explained followed by an explanation of the text coded to the 'economic & psychological' assumptions. Outside of the discussion below, further detail on the text coded to the assumptions can be found by referring to Appendix 7, sections A7.1.1.1 and A7.1.1.2.

7.2.1.1 – 'Ontological & Ethical' Assumptions Coding

The majority of coding to this set of assumptions was within the humans and nature, human role and time/space scale assumptions. This result is to be expected given that the majority of interviewees were asked about how they saw their relationship with the environment and the timescales their organisations operated to. When considering the humans and nature assumption, Gladwin, et al., (1995) explain interdependence as an understanding that "humans are neither totally disengaged from nor totally immersed in the rest of nature" (ibid: 890) and that humans are "part of the biosphere in organic and ecological terms...[but] above the biosphere in intellectual terms" (ibid:890). With regard to the human role assumption, Gladwin, et al., (1995) outline that humans have, because of their intelligence, a "moral obligation" (ibid: 891) towards the environment and thus a role of stewardship. The typical type of text coded to the interdependent assumption under sustaincentrism included phrases such as "[we are] trying to see how we fit into the ecosystem rather than what we can take out of it" (Pillars of Hercules, Bruce Bennett, Founder). Whereas the typical type of text coded to the human role assumption of stewardship under sustaincentrism included phrases such as; "we have a duty of care" (Green Building Store, Bill Butcher, Co-founder). The text coded to the ecocentrism paradigm under the assumption of humans and nature was from Company E and the Green Building Store. As discussed previously, the Company E interviewee highlighted how he saw his relationship with the environment as one where he was "umbilically attached". Similarly the Green Building Store interviewee commented that the environment is part of his "DNA rather than just bolted on" (Green Building Store, Chris Herring, Co-founder). Thus because of this phraseology these pieces of

text were coded to indisassociation (an ecocentric assumption). Further the Company E interviewee also described the human role in both stewardship terms and one of humans being just part of the "supply chain", thus text was coded to the human role assumptions of stewardship (sustaincentrism) and plain member (ecocentrism) for Company E.

With regard to the time/space scales assumptions, Gladwin, et al., (1995) do not appear to offer a description from which the intended meaning of short versus multiscale versus indefinite can be drawn. Nevertheless the descriptors of short, multiscale and indefinite can be understood literally. The text coded to these assumptions was informed by the interviewees' views on their organisations planning horizons as well as text the interviewees offered regarding the timescale of issues. As highlighted in chapter five many of the interviewees are guided by longer term concerns. The coding of text to the time/space scale set of assumptions was informed by whether interviewees commented specifically on whether they thought their planning horizon was short, long term or somewhere in between. Company A had text coded to short/near (a technocentric assumption) as the interviewee clearly highlighted that he did not think farther forward than three to five years. The typical text coded to the sustaincentric assumption of multiscale was from interviewees who were less definite in their comments regarding short term horizons compared to Company A. For example, interviewees coded to the sustaincentric assumption would outline how they may plan to three or five year time horizons but were also guided by "generational issues" (Green Stationery Company, Jay Risebridger, Founder). One interviewee echoed not only this typical view but also how he saw his work as similar to that of "cathedral builders [who] never saw the cathedral finished" (Ecover, Peter Malaise, Concept Manager). This quote of the work never being finished resulted in this text being coded to indefinite (an ecocentric assumption).

The final assumption to have text coded to it within the 'ontological & ethical' grouping was system structure. Gladwin, et al., (1995) discuss how "there are no wholes and no parts anywhere in the universe; there are only holons (whole/parts)" (ibid: 890). Thus within the system structure set of assumptions, holoarchival (a sustaincentric assumption) was assumed to be representative of this description of whole/parts. The text coded to this assumption was from interviews with Company D and seventh GENERATION. The text from the Company D interviewee reflected a

discussion he brought forward about society and how every individual in society has an important role in allowing the whole of society to function, hence whole and parts are intertwined (whole/parts). While the text coded from seventh GENERATION reflected a discussion the interviewee brought forward about a drive for whole systems thinking as well as ensuring greater capability in every individual, hence a focus on the whole and parts.

7.2.1.2 – ‘Economic & Psychological’ Assumptions Coding

Upon reading the ‘economic & psychological’ assumptions it could be assumed that the majority of the assumptions are macro-economic assumptions and potentially not relevant to organisations. However, Gladwin, et al., (1995) make it clear that any macro-economic shift “must find ways (now only dimly perceived) to have organisations operating within them to do the same” (ibid: 897). Consequently, although the Gladwin, et al., (1995) scheme could be thought of as a set of macro-economic assumptions, it is not unreasonable given the previous quote and Gladwin, et al.,’s (1995) indications regarding the paradigm scheme being a heuristic to apply the ‘economic & psychological’ assumptions at an organisational level.¹⁴⁹ Further, as Gladwin, et al., (1995) indicate it is not unreasonable if an economy is focused on quality of life, that organisations within that economy will be focused on a similar objective, likewise with views on growth, trade orientation and political structure.

The first assumption within the ‘economic & psychological’ grouping is primary objective. Gladwin, et al., (1995) discuss how organisations will become focused on increasing the “quality of life in equitable ways that maintain or reduce energy/matter throughput” (Gladwin, et al., 1995:897). Further humans need to learn to “satisfy non material needs in non material ways” (Gladwin, et al., 1995:893) and focus on their “spiritual and intellectual concerns” (ibid: 893).¹⁵⁰ These descriptions as well as a consideration of the ecocentrism assumption of ‘ecological integrity’, the technocentrism assumption of ‘efficient allocation’ and the wider framing by Gladwin, et al., (1995) that sustaincentrism is a synthesis (relative

¹⁴⁹ Further the Gladwin, et al., (1995) article is partially duplicitous in its messages. As although the assumptions could be read as macro-economic assumptions, the article is also making a clear call for research into organisations as opposed to conducting macro-economic research.

¹⁵⁰ Arguments regarding a focus on well-being and satisfying human needs in non-material ways have been made by Prof. Tim Jackson in numerous articles and books. For example see; Jackson, 2003; Jackson, 2004; Jackson, 2005 and Jackson, 2009.

to technocentrism being a thesis and ecocentrism an antithesis) informed the understanding of the primary objective assumption. In short the interview commentary where interviewees discussed the purpose of their organisation was coded to the quality of life assumption. This was because this text demonstrated the priorities of the organisations which were not about money or efficient allocation but arguably about quality of life. Thus typically text such as "social [outcomes]... are essential priorities, and if these aren't working there's no point...[having]...a business in the first place" (People Tree, Deborah Isaacs, General Manager) was coded to this assumption.

The next assumption, the good life assumption is informed by the Gladwin, et al., (1995) discussion, as above, that "humans can learn to satisfy nonmaterial needs in nonmaterial ways and to reduce preoccupation with material" (ibid: 893). As highlighted in chapter five, many of the interviewees had a desire for consumers to make "ethically responsible choices in what they do buy" (By Nature, Graham Randles, Co-founder) and be "careful about consumption" (BioRegional, Sue Riddlestone, Co-founder)¹⁵¹ rather than just buying more stuff. In this context, the text coded to this assumption reflected this typical commentary as it neither materialistic, not anti materialistic but arguably post materialistic.

The economic structure assumption and within that the 'green economy' (sustaincentrism assumption) is described by Gladwin, et al., (1995) as one where "ecological and social externalities are internalised...[and] markets are required to efficiently allocate resources...[and there is a requirement for] constraints on the pursuit of purely market criteria bearing upon natural resource use and the satisfaction of human needs" (ibid:893). Clearly Gladwin, et al., (1995) are discussing macro-economic structure, but as highlighted previously in order for a macro-economy to operate in a 'green economy' manner as described by Gladwin, et al., (1995) it will require actors within to do the same. It is likely to be of little surprise that interviewees had text coded to this assumption as it is an assumption congruent with the organisations pursuit of mission and money, notions of sufficiency and how they are using trade to benefit the environment and society rather than just the financial community, narratives previously discussed in chapters five and six.

¹⁵¹ Also see chapter 5, section 5.6.1 for a disclosure of the interviewees' views on their offerings being the green choice.

With regard to the free market assumption in the technocentric paradigm, Gladwin, et al., (1995) describe the technocentric view of economics as believing that “the optimal economic structure for satisfying wants and allocating resources most efficiently is laissez-faire capitalism” (ibid: 884). Further “goods and services are allocated to the most valued ends based upon the willingness to pay” (ibid: 894) and externalities are internalised if “cost effective” (ibid: 884). This focus within the ‘free market’ assumption on ensuring a good or service is cost effective and externalities are internalised if cost effective resulted in text also being coded to the free market assumption. This was done because as highlighted in chapters five and six, the interviewees were clear that while they pursued their mission and also practised elements of sufficiency, they also needed to ensure that their organisations succeeded in financial terms as otherwise the organisation would fail. For example, the revolve interviewee stated he thought “it would be very hard to achieve anything environmentally by running your own business without having a commercial mind” (revolve interviewee). Thus the interviewees were clear that their organisations needed to be cost effective and while that pursuit of being cost effective and cost efficiencies may, perhaps, not be as earnest as might typically be associated with conventional notions of laissez-faire capitalism. The requirement to be cost effective was clearly apparent from the interviewees. Hence text was coded to both the green economy assumption and the free market assumptions.

The next assumption, the role of growth, is described by Gladwin, et al., (1995) in terms where within the technocentric paradigm “growth is good and more growth is better” (ibid:884) whereas for sustaincentrism “material and energy growth are bounded by ecological and tropic limits” (ibid:893) and for ecocentrism “growth makes humanity and the rest of nature poorer” (ibid:887) and must be eliminated. The role of growth and the interviewees mixed views regarding growth, where they saw the growth of their organisation as both desirable but also as a potential issue regarding an increased environmental burden were discussed extensively in chapters five and six. The text coded to role of growth being necessary (technocentric assumption) and mixed (a sustaincentrism assumption) reflected the interviewees’ dual views on growth that was inherent in their commentary about growth and their organisations.

The trade orientation assumption is self-evidently focused upon macro-economic concerns. However four of the interviewees (Beyond Skin, biomelifestyle, Company E and Suma) brought up the subject of trade orientation. Within sustaincentrism, Gladwin, et al., (1995) discuss how "there is a recognition that trade may spatially separate the costs from the benefits of environmental and labour exploitation [and] uncontrolled capital mobility may work to lower workers' remuneration and environmental health and safety standards" (ibid: 894) and as such the orientation should be national. The text coded to the national (sustaincentrism) assumption reflected the commentary by Company E, Beyond Skin, Suma and biomelifestyle of their preference for national sourcing of product and to avoid unnecessary cross border trade. For example, the Suma interviewee outlined how if a local alternative product is in place, then product should not be shipped in from overseas. Further the Beyond Skin interviewee outlined that the public needs to understand that, for example, sourcing from Asia actually carries a price in terms of environmental damage, an argument the interviewee paraphrased as "buying cheap that's at a price"¹⁵² (Beyond skin, Natalie Dean, Founder) and because of this ultimately manufacturing needs to come back to the UK.

The final sets of assumptions within the 'economic & psychological' grouping to have text coded to them are concerned with political structure. As previously this assumption could be considered at a macro-economic level. However, within the context of this analysis the assumption has been considered at the organisational level. Gladwin, et al., (1995) offer no insight into their political structure assumptions of centralised, devolved and decentralised. However, the descriptors of centralised, decentralised and devolved are literally informative and can be related to the discussions with interviewees regarding the organisational structures of their organisations. As outlined previously in chapter five (section 5.6.3.2) many of the organisations had a classic hierarchal organisational structure but also had a desire for decentralised decision making and a flat organisational structure. This commentary reflects a tension in the interviewees and as such this text was coded to both the centralised (technocentric) and devolved (sustaincentric) assumptions. The two pieces of text coded to the ecocentric assumption of devolved were from Company D and seventh GENERATION. The text coded reflected their comments

¹⁵² The context of this quote was environmental and social costs associated with outsourcing manufacturing to, for example, Asia.

regarding breaking their organisations up into small units with no central oversight or operating their organisation as small, local factories in boxes.¹⁵³

7.2.2 The Coding Spread for Each Interview

Turning away from reviewing the interview sample as a whole, the following tables highlight the coding of each individual interview. First by the interviews coding to 'ontological & ethical' assumptions (Table 7.3) and second by the interviews coding to 'economic & psychological' assumptions (Table 7.4).¹⁵⁴

Table 7.3: Interviews coded to the 'Ontological and Ethical' Assumptions

Companies/Sources/ Organisations	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. belu			
2. Beyond Skin			
3. biome lifestyle		✓	
4. BioRegional		✓	
5. By Nature		✓	
6. Company A	✓	✓	
7. Company B		✓	
8. Company C			
9. Company D		✓	
10. Company E		✓	✓
11. Ecover		✓	✓
12. Green Building Store		✓	✓
13. Green Stationary Company		✓	
14. howies		✓	
15. People Tree			
16. Pillars of Hercules		✓	
17. Recycline		✓	
18. revolve		✓	
19. seventh GENERATION		✓	
20. Suma		✓	
21. Terra Plana		✓	
22. TerraCycle			
23. Triodos Bank			

¹⁵³ Further discussion regarding this point can be found in chapters 5 and 6.

¹⁵⁴ Coding to 'scientific & technological' assumptions has been omitted as no interviews had text coded to these assumptions.

Table 7.3 suggests that 13 of the organisations are solely coded to the sustaincentrism paradigm, whereas four are coded to sustaincentrism and technocentrism or ecocentrism. As discussed previously this spread is not to be unexpected, however, what is perhaps surprising is that so few interviewees had this spread. Thus indicating that across the sample the interviewees are relatively consistent, but also relatively compartmentalised in their 'ontological & ethical' assumptions.

In dealing with the outliers, Company A, Company E, Ecover and Green Building Store; Company A's coding to technocentrism can be explained by the interviewee's discussion of how the organisation operates to short time frames (a technocentric assumption). A view partially explained by Company A's status as a subsidiary of a quoted parent organisation. In contrast, as discussed previously, Ecover offered views that indicate a more indefinite view of time and thus text was coded to indefinite (an ecocentric value). While Company E founder Eoin Cox highlighted, as discussed previously, how he is "umbilically attached," and "part of the process" and hence had text coded to indisassociation and plain member (ecocentric assumptions). Similarly the Green Building Store interviewee highlighted, as discussed previously, that the environment is part of his DNA as opposed to being just bolted on; thus this text was coded to indisassociation (an ecocentric assumption regarding humans and nature).

With regard to the six interviewees that did not have any text coded to the 'ontological and ethical' group of assumptions, aside from the previous discussion that focused on researcher caution and maintain transparency as reasons for non-coding, there is little to add. As in reviewing the absence of coding by particular interviewee no additional rationales for a lack of coding arise.

Turning to the 'economic & psychological' group of assumptions, Table 7.4 below reveals that there is a predominance of interviews being coded to sustaincentrism and technocentrism. This greater spread is explained by a number of factors regarding the coding and the interviewees' views. First, the interviewees' dual views on growth whereby they understood that growth results in a larger environmental footprint, but the growth of their organisation was necessary. Second, how

Table 7.4: Interviews coded to the 'Economic & Psychological' Assumptions

Companies/Sources/ Organisations	Technocentrism	Sustaincentrism	Ecocentrism
Economic & Psychological			
1. belu	✓	✓	
2. Beyond Skin		✓	
3. biome lifestyle	✓	✓	
4. BioRegional	✓	✓	
5. By Nature		✓	
6. Company A	✓	✓	
7. Company B	✓	✓	
8. Company C	✓	✓	
9. Company D	✓	✓	✓
10. Company E		✓	
11. Ecover	✓	✓	
12. Green Building Store	✓	✓	
13. Green Stationary Company	✓	✓	
14. howies	✓	✓	
15. People Tree	✓	✓	
16. Pillars of Hercules	✓	✓	
17. Recycline	✓	✓	
18. revolve	✓	✓	
19. seventh GENERATION	✓	✓	✓
20. Suma		✓	
21. Terra Plana	✓	✓	
22. TerraCycle	✓	✓	
23. Triodos Bank	✓	✓	

interviewees discussed the purpose of their organisation was to enable more environmentally benign outcomes yet they also had to succeed in commercial terms and thus text was coded to both free market (technocentric) and green economy (sustaincentric) assumptions. Third, how the interviewees' organisations invariably had hierarchal organisational structures but at the same time there was a desire for a flat, informal structure with devolved decision making.

The two outliers in the 'economic & psychological' grouping are seventh GENERATION and Company D, both of whom had text coded to decentralised (an ecocentric political structure assumption) for reasons discussed previously.

7.3 Discussion and Reflection

One clear implication from this analysis is that there are business organisations which are sustaincentric in their views and thus the primary research question of this exploratory study is, to an extent, answered positively. However, in adding a layer of complexity what is also apparent is that interviewees hold views which inform all three of the paradigms and in particular the interviewees hold a relatively even mix of technocentric and sustaincentric 'economic & psychological' assumptions. This balance arises from the organisations assumptions regarding their growth, needing to succeed in commercial terms and their conventional hierarchal organisational structures.¹⁵⁵ It is perhaps not surprising that there is crossover between the technocentrism and sustaincentrism in this set of assumptions as the organisations operate in an economy as is rather than how they may want it to be. Further Gladwin, et al., (1995) argue that technocentrism is the current paradigm and Kuhn (1996) highlights that assumptions will continue to be subscribed to for as long as they have some validity. Self evidently technocentric assumptions still have validity. A view expressed clearly by the Ecover interviewee who highlights that "if something absolutely fantastic, fantastically ecological or sustainable cannot be done in a rentable way well then (laughs) you can do what you want but you will never be able to realise it" (Ecover, Peter Malaise, Concept Manager).

Another implication that arises is that relative to the 'economic & psychological' assumptions the 'ontological & ethical' assumptions are more compartmentalised in that the coding for this set of assumptions is more clearly focused upon sustaincentrism with less crossover to technocentrism as is the case for the 'economic & psychological' assumptions. The coding process aside, this result

¹⁵⁵ According to many commentators these are assumptions indicative of existing economic operating principles. For example see: Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna 1995; Halme, 1996; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a.

perhaps indicates a slight disconnect or compromise as one moves between the views one can hold as an individual relative to the views one can hold regarding how an organisation can operate and survive in the wider economy. This compromise in 'economic & psychological' assumptions could make for pessimistic reading should one desire a change towards a sustaincentric or ecocentric paradigm. As from a pessimistic view point it would indicate that even those organisations that espouse environmentally orientated missions are only ever likely to be limited in realising more sustainable outcomes and that nothing can be done without wider systemic changes.

However, from an optimistic perspective that the sample has sustaincentric and technocentric 'economic & psychological' assumptions and sustaincentric 'ontological & ethical' assumptions perhaps offers some hope, particularly in light of an argument put forward by Devereaux Jennings and Zandbergen (1995). Devereaux Jennings and Zandbergen (1995) discuss how organisations both help construct and destroy paradigms, citing the Bhopal and Three Mile Island disasters as examples of how organisations help change assumptions and in the process destroy paradigms. In this regard Devereaux Jennings and Zandbergen (1995) are making it clear that organisations are key actors in the development of paradigms and from this they offer a hypothesis that "the more enclaves of organisations devoted to sustainable values and practices, the more likely a society will be able to shift to a new paradigm for sustainability" (ibid: 1039). If this hypothesis is accepted, then it would indicate that the research sample for this study are likely to help enable society to "shift to a new paradigm for sustainability" (ibid:1039) and furthering their success will help this move, albeit ultimately wider macro-economic changes also need to occur.

In reviewing the results of this analysis against the previous narratives that the organisations are pursuing mission and money and are altruistically selfish and selfishly altruistic (Maturana & Varela, 1998), it would appear that the coding is consistent with the previous narratives. An alternative and slightly more nebulous viewpoint is that the relatively compartmentalised 'ontological & ethical' assumptions of the sample represent the ideal of the mission and or altruism. Whereas the 'economic & psychological' assumptions represent the tension between the mission and money, or altruism and selfishness and thus there is less compartmentalisation in this set of assumptions. Outside of this more nebulous viewpoint the relative

compartmentalisation of 'ontological & ethical' assumptions to 'economic & psychological' assumptions perhaps indicates the never reached ideal inherent in organisational missions relative to the essential functioning of organisations not being so ideal (Katz & Kahn, 1966).

When considering the findings from this analysis against the results of other studies, that the research sample is predominantly sustaincentric supports, to a degree, the findings of Brych, et al., (2007) that promoters of sustainable business are sustaincentric in their views.¹⁵⁶ As well as Shrivastava's (1995a) claim that "ecocentric companies have their commitments to nature clearly articulated in mission statements" (ibid:131). Similarly the results of this analysis also support Dunlap and Van Liere's (2008) finding that environmental organisations operate to an environmental paradigm. As well as Egri and Herman's (2000) finding that for profit environmental leaders operate to an environmental paradigm.¹⁵⁷

Outside of the results of the analysis, what is also apparent is that the coding of transcripts to the paradigm scheme offered by Gladwin, et al., (1995) is limited because of the ambiguity of the scheme. Although, Gladwin, et al., (1995) do not make claims to specificity for their paradigm scheme via their use of terms such "heuristically useful" (ibid: 881) and "coherent persuasiveness" (ibid: 882). The ambiguity of the scheme raises concerns on the part of the researcher that many individuals if asked the same questions, no matter what the orientation of their organisation, would have a similar pattern of coding to that realised from this analysis and thus there is nothing specific about the coding for this study. Concerns regarding ambiguity were also brought forward in chapter two where it was highlighted that the paradigms of ecocentrism and technocentrism, in particular, are likely to be straw men because they are either abstract or utopian respectively (Egri & Pinfield, 1999). Furthermore the straw men discussion also highlighted how, although, sustaincentrism can be seen as an optimistic and pragmatic outcome, it can also be criticised for being ambiguous, incoherent and too incremental (Colby, 1991; Egri & Pinfield, 1999; Purser & Montuouri, 1996). In the researcher's opinion these criticisms have not been countered by this analysis and if anything they have

¹⁵⁶ However, Brych, et al., (2007) did not interview any leaders of trading organisations as opposed to promoters of sustainable business within public sector departments.

¹⁵⁷ Egri and Herman (2000) specifically found that for profit environmental leaders operate to an environmental paradigm, but also are not as strong in those views relative to not for profit leaders.

been supported. Consequently although this study was exploratory if the study was repeated it would perhaps be appropriate to match each interview with an environmentally orientated organisation with an interview with a non-environmentally orientated organisation operating in a similar market. As if a difference in paradigm coding then arises the conclusions regarding paradigm adherence could be accepted with a greater degree of confidence.¹⁵⁸ Notwithstanding this, as stated in previous chapters, if the study were to be repeated it would be beneficial to also utilise a paradigm questionnaire with, for example, a Likert type scale regarding adherence to each paradigm assumption. This would enable a more complete range of assumptions from the Gladwin, et al., (1995) scheme to be coded and thus any findings regarding paradigm adherence could be answered with even greater confidence than that allowed with this research. Lastly, given the Gladwin, et al., (1995) scheme is fifteen years old and widely cited it may be appropriate to conduct a current state review of the scheme and if appropriate bring its assumptions up to date as well as perhaps enhancing the specificity of the assumptions.

Summary

This chapter has presented and discussed the analysis of the interview transcripts against the paradigm scheme of Gladwin, et al., (1995). It has highlighted how the primary research question (are there business organisations which are sustaincentric or ecocentric?) is more satisfactorily answered, to the researcher's mind, than the indications from the analysis and discussion in previous chapters. However, in adding a layer of complexity it has demonstrated that the organisations interviewed are predominantly sustaincentric in their 'ontological & ethical' assumptions while being a mix of sustaincentric and technocentric in their 'economic & psychological' assumptions.

The chapter covered three areas. The first concerning how the interview transcripts were coded to the paradigm scheme of Gladwin, et al., (1995), the second, the presentation of the results of the analysis and the third a discussion of these results.

¹⁵⁸ A study such as this might also help illuminate whether paradigms do influence behaviour.

unreasonable given the current dynamics of the economy. This discussion also highlighted that the extent of the crossover between technocentrism and sustaincentrism was less apparent in the interviewees' 'ontological & ethical' assumptions, indicating that it is perhaps easier for an individual to be compartmentalised in these types of assumptions relative to economic assumptions, as an organisation necessarily interacts with a wider economy whereas an individual's views can remain compartmentalised to the self. This discussion also highlighted that the findings are consistent with those of Brych, et al., (2007) and Egri and Herman (2000) as well as claims made by Shirvastava (1995a). However, given the exploratory nature of this research and the ambiguity of the paradigm scheme, in any future research it might be appropriate to interview individuals from environmentally orientated organisations and cross match their paradigm coding against interviews conducted with individuals in non environmentally orientated organisations, as this would potentially enhance the validity of any results regarding the peculiarities of environmentally orientated organisations. Lastly it was highlighted that given Gladwin, et al.,'s (1995) paradigm scheme is fifteen years old and widely cited it may be appropriate for the scheme to undergo a current state review.

Chapter 8

Data Interpretation (3)

Reviewing the Interviews through Actor-Network Theory (ANT)

Introduction

ANT promotes the idea that we (humans) “are not in society anymore than we are in nature” (Latour, 2005:241). It is a tool that attempts to abandon distinctions between nature and culture (Ashmore, et al., 1994; Callon, 1997; Castree, 2002; Fox, 2000; Ivakhiv, 2002; Latour, 1993; Latour, 2005; Law 1992; Lee & Brown, 1994; Lee & Stenner, 1999; Newton, 2001; Newton, 2002 and O’Connell, et al., 2009) and may be able to contribute to “a non-dualistic model of human-environmental relations...that can aid in the task of developing more appropriate ecological practices for a...pluralistic...world” (Ivakhiv, 2002:392). This chapter discusses the ANT analysis conducted on the interviews. The chapter proceeds by first discussing why ANT has been chosen as an analytical lens to apply in this research. From there the chapter will attempt to explain the peculiarities of an ANT lens (i.e. what is ANT?), some implications that arise from it, the language of ANT and the critiques that have been levelled at this ‘theory.’¹⁵⁹ Following this there will be an explanation of how ANT has been applied in this research study. This explanation is followed by a disclosure of how an ANT lens illuminates the interview data and a discussion of whether the analysis adds anything to that of previous chapters. Finally the chapter’s key messages will be summarised.

¹⁵⁹ The term theory has been put in inverted commas in this sentence as although Actor-Network Theory incorporates the term theory and articles that discuss ANT refer to it as a theory, Latour (2005) argues ANT is not a theory in a conventional sense as “with ANT we push theory one step further into abstraction” (ibid:221). Further Calas and Smircich (1999) also highlight that because ANT emphasises work, movement and flow and thus has no firm ground from which to speak, it (ANT) “has never been able to coalesce into a theory in the modernist sense” (ibid:663). This aspect of ANT implies ANT is in effect a way of seeing/analysing, aspects that will be discussed later in this chapter (section 8.2).

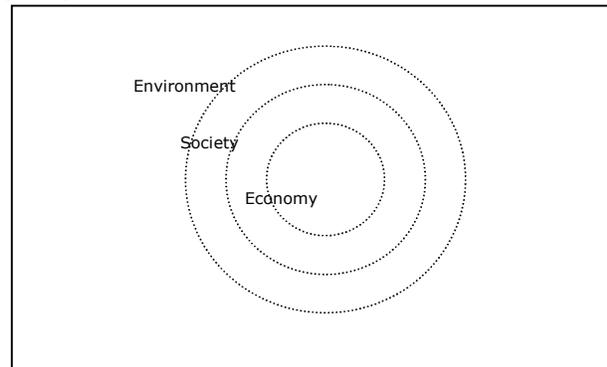
8.1 Why ANT for this Research?

As O'Dwyer (2004) highlights, at the start of his research gathering and analysis he had not "explicitly pre-selected" (ibid: 392) his analytical lens rather it was "implicit" (ibid: 392) in his thinking. In a similar manner at the start of this research what was implicit to the researcher was a desire for an analytical tool that dissolved boundaries between society and the environment; however it was some time before one was explicitly identified. The implicit desire for a tool that dissolved boundaries arose from three areas. First, one of the premises' behind this research is a questioning of whether organisations, socially constructed tools, can be part of the solution to environmental problems. Second a quote by Gladwin, et al., (1995:874) that "modern management theory is

constricted by a fractured epistemology, which separates humanity from nature [and] reintegration is necessary if organisational science is to support ecologically and socially sustainable development" (Gladwin, et al., 1995:874). Third the nested view of the relationship between the environment, society and the

economy (Figure 8.1) which reinforces an intermingling of the environment, society and the economy and thus how many of the environmental issues facing humanity are imbroglios that cut across the three areas.

Figure 8.1: Three Overlapping Spheres
(Adapted from Marcus and Fremeth, 2009:18)



The argument that environmental degradation is a range of imbroglios that cut across different definitional areas is made clearly by Ivakhiv (2002) who argues that "phenomena like climate change, ozone holes, AIDS and other viruses" (ibid: 392) are the latest in long list of phenomena that "cannot be understood from segregated vantage points of scientific realism or social constructivism" (ibid: 392). Rather these phenomena are "simultaneously real, like nature, narrated like discourse and collective like society" (Ivakhiv, 2002:392), in short they are "nature culture

imbroglios" (Ivakhiv, 2002:393).¹⁶⁰ Through this argument Ivakhiv (2002) makes the case that to understand these imbroglios an analytical lens is required that does not separate the world into a social realm and a scientific realm, rather one that allows, in simplistic terms, a "bypassing strategy" (Latour, 1999:17) is required. Consequently Ivakhiv (2002) and other scholars (for example see; Lee & Stenner, 1999 and Newton, 2002) identify ANT as an analytical tool that allows this bypassing and the understanding of nature culture imbroglios or as Newton (2002) states the examining of "how human and non-human networks align" (ibid: 531). ANT facilitates this understanding as it "stitch[es] back together the socionatural imbroglios that [a society-nature dichotomy]...has rent asunder" (Castree, 2002:118). Given these arguments ANT was identified explicitly as the theory of choice for this research, with that choice being definitively made after conducting the interviews and conducting the analysis of the previous three chapters.

8.2 What is ANT?

Actor-Network Theory (ANT) is an approach that is closely related to the works of Bruno Latour, Michel Callon and John Law (Callon, 1986; Callon, 1997; Harman, 2009; Ivakhiv, 2002; Latour, 1993; Latour, 2004; Latour, 2005; Law, 1992; Law, 1999; Law, 2000; Lee & Brown, 1994; Lee & Stenner, 1999). It is an analytical lens that aims to not separate the world into two houses, one society and one nature (Harman, 2009; Latour, 2004; Latour, 2005; Lee & Stenner, 1999). Rather it aims to bypass any social natural divide by arguing that "nature and society are two collectors that are a premature attempt to collect in two opposite assemblies one common world" (Latour, 2005:245).¹⁶¹ Further it is argued that "it is a grave methodological mistake to limit in advance...the range of entities that may populate the social world" (Latour, 2005:227) by limiting it to only humans, as it is "counterintuitive to try and distinguish what comes from viewers and what comes from the object when the obvious answer is to go with the flow" (Latour, 2005:237).

¹⁶⁰ This argument is also made by Briers and Chua (2001), Castree (2002), Latour (2005) and is one of, if not, the central message of Latour's (1993) book 'We Have Never Been Modern'.

¹⁶¹ To an extent this argument is similar to that offered by Tinker, et al., (1982) who outline that "the subject-object split is a false assumption: observers (subjects) are a product of the reality (objects) they observe (and so therefore are their models of observation and perception)" (ibid:173). Similarly Gibson (1986) when discussing his ecological approach to vision and the concept of affordances makes a similar claim as does Guattari (1989) when highlighting nothing is separate from the assemblage that brought it into being. Whereas McEvoy and Zarate (2007) discuss the properties of light and the relationship between the observer and what is observed.

Furthermore Latour (2005) claims “no amateur ever alternated between subjectivity and objectivity” (ibid: 240) so why should social scientists be forced into this “artificial quandary” (ibid: 240). This statement from Latour (2005) aside, the argument being made is illustrated by Law (1992) where he argues that there is no distinct domain that is social, and if, with reference to himself “you took away my computer, my colleagues, my office, my books, my desk, my telephone, I wouldn’t be a sociologist writing papers...I’d be something quite other” (Law, 1992:4). Hence “social agents are never located in bodies and bodies alone, but rather an actor is a patterned network of heterogeneous relations” (Law, 1992:4) between the human and the non-human and is social natural in form (Callon, 1986; Castree, 2002). Further all the attributes that may normally be ascribed to human beings “are generated in networks that pass through and ramify both within and beyond the body” (Law, 1992:4).¹⁶² Thus humans cannot be seen in isolation from that which makes them purposeful; humans and non-humans are intermeshed (O’Connell, et al., 2009; Steen, et al., 2006) and thus actor-networks (Law, 1992).

Consequently ANT brings within its analytical view all entities (humans and non-humans) and explicitly sets out to “clear the slate of nature-culture dualism” (Ivakhiv, 2002:391) treating all entities symmetrically. In this regard ANT has been described as a form of “ultra-liberalism” (Callon, 1997:2) as it is fair to all entities (Ashmore, et al., 1994; Callon, 1997; Fox, 2000; Ivakhiv, 2002; Lee & Brown, 1994; O’Connell, et al., 2009). Further, because ANT treats everything as equal from the outset, the analyst is then in a position to follow the production of inequalities (Ashmore, et al., 1994; Lee & Brown, 1994). However, it is important to note that this non recognition of fundamental differences is “an analytical stance, not an ethical position” (Law, 1992:4). It is not intended that in applying ANT objects become endowed with ethical or moral agency (Law, 1992). Rather, it is about not imposing asymmetry between humans and non-humans in the analysis (Latour, 2005) and giving “due consideration and recognition of [both] the non-human and human” (O’Connell, et al., 2009:20) in analysis. Thus to reiterate ANT is about showing how humans and non-humans are intermeshed (O’Connell, et al., 2009) and

¹⁶² In this regard, this concept is similar to that offered by Newton (2002) where people are seen as “*hominess aperti*” (ibid: 530) a concept counter to the notion of *homo clausus* a “person closed in on himself (sic)” (ibid: 530). Callon (1997) makes a similar claim regarding ANT not promoting *homo clausus* and also argues that the concept of economic embeddedness (Granovetter, 1985; Granovetter, 2005) is an “emerging theory of the actor-network” (Callon, 1997: 4) as it opens up the frame of concern for economic actions to include social elements beyond pure economic rationality.

the relationships between entities (human and non-human) or the associations between them.¹⁶³ In this regard, ANT is putting the analyst in the middle of the action where "connections are continuously being made" (Steen, et al., 2006:207) and remade. In other words asking the analyst to decentre everything and think relationally rather than separations (Castree, 2002). In so doing Calas and Smircich (1999) argue that ANT "defamiliarizes what we may otherwise take for granted" (ibid:663) and everything, including the entities themselves, become "an effect of an array of relations, the effect, in short, of a network" (Law, 2000:1).¹⁶⁴ Consequently, within ANT boundaries and differences are not only dissolved but they are effects rather than being given in the natural order of things (Latour, 2005; Law, 1992; Law, 1999; Law, 2000; McLean & Hassard, 2004; Newton, 2002). Thus "cultures and ecologies...[are]...not some essential bounded wholes but at best only analytically distinguishable moments within the fluid activity of network building" (Ivakhiv, 2002:399) and all is performance rather than a final or original state (Calas & Smircich, 1999). In sum, ANT could be described as being about viewing "the world as consisting of heterogeneous and dynamic networks that are constantly being made and remade through practice" (Ivakhiv, 2002:393).

Thus ANT brings forward a world of work, movement and flow¹⁶⁵ where everything is a relational field. This can be a challenging aspect to ANT as "order becomes an effect generated by heterogeneous means" (Law, 1992:3), not some final or end state. Further rather than order, within ANT what is occurring is ordering (Newton, 2002; Steen, et al., 2006) where some discernable entities or things happen to be more or less enduring (Newton, 2007) but ultimately entities or things are a form of punctualisation (Law, 1992). This analysis of the work of ordering or more particularly the translation¹⁶⁶ occurring between heterogeneous entities generates ordering effects such as devices or organisations¹⁶⁷ and is central to ANT analysis (Law, 1992).

¹⁶³A focus on associations prompted Latour (2005) to state that ANT should be renamed "associology" (ibid:9)

¹⁶⁴ Consequently within ANT "an actor is also, always, a network" (Law, 1992:4). Further as Callon (1997) states "language is an effect of distribution and not an inherent property" (ibid: 2).

¹⁶⁵ This ANT world of work movement and flow highlights a central difficulty for any ANT account as "any system of representation...automatically freezes the flow of experience and in so doing distorts what it strives to represent" (Cuganesan, 2008:99 citing Harvey, 1989:206)

¹⁶⁶ Translation has been described by Law (1992) as the generation of ordering effects such as devices, institutions and organisations. Appendix 8, Table A8.2 provides descriptions of various ANT terms.

¹⁶⁷ Within ANT, an organisation can be described as "an achievement, a process, a consequence, a set of resistances overcome, a precarious effect" (Law, 1992:8). In this regard there is congruence with open systems theory which reinforces the processual nature of organisations (Burrell & Morgan, 1979).

A further difficulty with ANT and its emphasis on everything being in flow, nothing ever being complete, final or autonomous (Law, 1992) and all being a relational field (Ivakhiv, 2002), is how can an analyst identify any fixed points or entities between which to analyse processes of work, movement and flow. As if the ANT lens is accepted, everything is atomized and the analyst is asked to concentrate on the relationships in between, but the relationships in between what? As with ANT everything is a network and in flow. To escape this quandary, Law (2000) outlines that when using ANT the analysis can occur at varying levels of magnification. In discussing his ANT analysis of Portuguese imperialist expansion in the 15th century, Law (2000) outlines that the analysis can be done at the level of an individual vessel and its "network of hull, spars, sails, ropes, guns, food stores" (ibid: 3) through an increased magnification to focus on the navigational system of a ship and its network or through a decreased magnification to consider the Portuguese imperial system as a whole and its "ports, ...its vessels, its military dispositions [and] its markets" (ibid: 3).

8.2.1 Some Implications of ANT

Some implications of passing significance to this study that arise from ANT and its opening up the frame of analysis to include all things (human and non-human) is notions of the special status of humans, freedom and paradigms. Taking each in turn, by opening the frame of analysis to include all things, humans no longer have special status. Humans are reduced to being things which also happen to describe (Latour, 2004; Latour, 2005), in short they are actors and describers. Second, with regard to freedom, because with ANT everything is a relational field this indicates that humans do not exist by themselves but rather they exist in chains of association with other things. Consequently freedom is not an absence of associations but abundance of associations (Latour, 2005) or in alternative terms an abundance of options. Third, this research study explores paradigms along a spectrum of anthropocentrism, sustaincentrism and ecocentrism. Castree (2002) highlights that neither ecocentrism nor anthropocentrism are consistent with ANT as each of these paradigms either biases nature over humanity or vice versa whereas ANT favours a "hybrid basis" (ibid: 120) for the relationship between nature and humans. Thus it is perhaps plausible, although this would be an ambitious claim that this researcher can

find no support for in the literature, that sustaincentrism is a paradigm view that is consistent with ANT as it attempts to be a synthesis of ecocentrism and technocentrism (anthropocentrism).

8.2.2 The Language of ANT

ANT has been described as a “machine for waging war on essential differences” (Law, 1999:7)¹⁶⁸ as ANT has helped to show that “what appears to be...given in the order of the world, is in fact produced in networks” (ibid:8). To help do this it has been argued that ANT has “tried to develop a neutral vocabulary” (Ivakhiv, 2002:393). An argument supported by Steen, et al., (2006) who outline that ANT can be “best thought of as a language rather than an explanatory framework” (ibid: 304). The ANT vocabulary is not necessarily full of new to world words; however ANT does use its vocabulary to imply different concepts. Five of these terms,¹⁶⁹ actant, collective, flatland, translation and punctualisation will now be discussed as they are in the opinion of this researcher, helpful to enhancing an understanding of the basic tenets of ANT. First, the term ‘actant’ is used by ANT to “to escape the anthropomorphism of ‘actor’ and point out that non-human entities also act” (Fox, 2000:859). Hence it is a term that aims to be more neutral than the term ‘actor’ which might typically denote a human being (Castree, 2002; Ivakhiv, 2002; McLean & Hassard, 2004). It is also a term used to reinforce that “agency is a relational effect” (Castree, 2002:121). Building upon this what an analyst might typically term an actor, but now an actant, is also because ANT highlights that everything is relational field and the effect of an array of relations (Law, 2000), a locational identifier to network traces (Latour, 2005). Furthermore because ANT can move through various levels of magnification an actant¹⁷⁰ can be almost anything.

Second, the term ‘collective’ is intended as a neutral term to help bypass any “reified and abstract use of collective categories” (Steen, et al., 2006:307) such as society and nature and thus the term intends to help emphasise that the world is full of things as opposed to two realms of material and social (Latour, 2005). Third, the term ‘flat land’ which has also been referred to as a “flat ontology” (Whittle & Spicer,

¹⁶⁸ Also see; Ashmore, et al., 1994; Lee and Brown, 1994 and McLean and Hassard, 2004.

¹⁶⁹ For a more extensive, although not exhaustive list, of ANT terms see Appendix 8, Table A8.2.

¹⁷⁰ A reading of the ANT literature indicates that the term actant is not used exclusively when discussing actors.

2008: 622)¹⁷¹ is a metaphor to ensure that scale and hierarchy of any form are not assumed and all connections are fully traced (Latour, 2005). However, it should be noted that ANT does not take a stance that scale and hierarchy do not exist, rather with ANT if scale and hierarchy and how they arise cannot be fully described then the connections have not been fully traced (Latour, 2005). Fourth, translation, this term is a “verb which implies transformation and the possibility of equivalence” (Law, 1992:5) between an actor and a network, or more simply that an actor is also a network and hence an actant. Further it is through the process of translation that ordering effects such as devices, institutions and organisations are generated (Law, 1992). Fifth and finally the term ‘punctualisation’, this term is used to highlight that although everything when using an ANT lens is in flow and thus “precarious” (Law, 1992:5) an analyst can use punctualised entities such as an organisation as a “way of drawing quickly on the networks of the social without having to deal with endless complexity” (Law, 1992:5).

8.3 Critiques of ANT

ANT has been critiqued by numerous scholars not least by Latour (1999), Callon (1999) and Law (1999) themselves. Latour (1999) argues that there are four things wrong with ANT, the words ‘actor’, ‘network’, ‘theory’ and the hyphen.¹⁷² He highlights how the term network carries with it a view that there is “unmediated access to every piece of information” (Latour, 1999:15) without translation. This is a point also made by Law (1999) who when discussing the term network argues that it carries with it a metaphorical baggage regarding computer networks, social networks, rail networks and alike. Second Latour (1999) argues that the hyphenated nature of the term actor-network can create a misunderstanding of the agency/structure debate as the hyphenated term makes it “impossible to see clearly the bypass operation” (Latour, 1999:16) attempted with ANT. Third Latour (1999) criticises the term theory arguing that ANT was never a theory in a conventional sense as opposed to a “very crude method to learn from actors without imposing on

¹⁷¹ Also see Ivakhiv (2002) who states that ANT creates a world that is “ontologically flattened” (ibid:394).

¹⁷² However, it should be noted that Latour (2005) pulls back from his rejection of the terms actor, network and theory and the acronym of ANT in his later work and accepts the terms and acronym given they have been widely adopted.

them an *a priori* definition of their world building capabilities" (ibid:20),¹⁷³ furthermore "with ANT we push theory one step further into abstraction" (Latour, 2005: 221).

With regard to John Law, Law (1999) criticises ANT from a naming perspective arguing that because of the "desire for quick moves and quick solutions...[and]...to point and name" (Law, 1999:8) particularly when the "tension originally and oxymoronically" (ibid:8) built into the term 'actor-network' is moved further from view by using the acronym ANT, harm as well as good has been created. Harm to understanding because the complexity of a centred actor in tandem with a decentred network that is intended to be relayed by the term 'actor-network' gets lost in a rush for simplicity, good because the ANT acronym has made the concept "easily transportable" (Law, 1999:8).

Moving from critiques levelled by Latour, Callon and Law, Ivakhiv (2002) highlights two criticisms. First, ANT provides little understanding of the differing motivations of actants because ANT treats all actants symmetrically. Thus the social psychology of ANT is rendered "thin and homogeneous" (Ivakhiv, 2002:394) and the fall back position is that "actants are said to mobilise other actants to build and strengthen their networks...but their motivations for doing so are unaccounted" (ibid: 394). Second, again because of the symmetry in ANT, there is a loss of "normative positioning" (Ivakhiv, 2002:395) and critical analysis of structures such as capitalism cannot be conducted. Ivakhiv (2002) doesn't expand on his criticism by way of examples. However the criticisms are to a certain degree negated by the following two points: (1) ANT's focus on describing and because of this focus on describing the claim that with ANT "explanation emerges once the description is saturated" (Briers & Chua, 2001:243 citing Latour, 1991:129); and (2) because ANT treats everything as equal it allows the production of inequalities to be highlighted (Lee and Brown, 1994).

¹⁷³ This is a view supported by Callon (1999). Further Calas and Smircich (1999) highlight that "ANT has never been able to coalesce into a theory in the modernist sense" (ibid: 663), where a modernist theory can be "presumed to represent some form of stable phenomena existing outside of their representation" (ibid: 653). As ANT decentres everything and does not allow final or original states as everything is in flow (Calas & Smircich, 1999).

Another critique of ANT is offered by Whittle and Spicer (2008) who argue that although ANT is a “valuable framework for the empirical analysis of the organising process, it cannot provide a critical account of organisation” (ibid: 611). Whittle and Spicer (2008) develop their argument by outlining that critical theories need to include a “commitment to ontological denaturalisation, the pursuit of epistemological reflexivity and a politically anti-performative stance” (ibid: 612). Where “denaturalisation involves recognising that the way things are is neither natural nor inevitable...reflexivity involves rejecting an assumption that reality is ‘out there’ waiting to be captured by a researcher...[and] anti-performative involves moving beyond reinforcing existing power relations towards considering new forms of social order” (Whittle & Spicer, 2008:612).

Taking each aspect of Whittle and Spicer’s (2008) argument in turn, with regard to denaturalisation, Whittle and Spicer (2008) outline that although ANT makes claims to the counter as, it “appears to naturalise organisational processes by appealing to innate capacities and characteristics that exist independently of human interpretation” (ibid:617), citing for example an ANT study by Callon and Muniesa (2005) on the stock market ticker that attributed inherent properties to the ticker. Second, regarding reflexivity Whittle and Spicer (2008) argue that although, for example, Callon’s (1986) study of scallops ascribed agency to the scallops, few fishermen would agree with this and thus ANT studies do not “produce explanations of the world that resonate with those given by local actors” (Whittle & Spicer, 2008:617). Further Whittle and Spicer (2008) argue that ANT studies do not treat all accounts as equal as invariably the only account produced is the one by the analyst and because of this ANT accounts belie ANT’s attempts to be a theory of equivalence. Building upon this apparent lack of reflexivity and equivalent treatment of accounts from all actors, Whittle and Spicer (2008) also argue that ANT has not been reflexive about itself as a ‘theory’ because Callon’s (1986) four stage process¹⁷⁴ has been applied in six other studies¹⁷⁵ and thus ANT has been subjected to a “positivistic attempt” (Whittle & Spicer, 2008:618) to verify its “universality” (ibid: 618). Third, with regard to anti-performative politics, Whittle and Spicer (2008) make the point that “by producing descriptions of existing networks of actors in an apparently neutral, apolitical manner, ANT actually reinforces the state of affairs that

¹⁷⁴ See Appendix 8, section A8.1.1 for an overview of this four stage process.

¹⁷⁵ Whittle and Spicer (2008) cite Gherardi and Nicolini (2000), Hardy, et al., (2001), Doorewaard and van Bijsterveld (2001), Harrison and Laberge (2002), Legge (2002) and Munir and Jones (2004).

it describes" (ibid: 622). Furthermore because ANT has a flat ontology, a focus on translation and a thin understanding of motivations, there is a focus on the victors of the translating and right is reduced to might because actants concentrate on strengthening their network (Whittle & Spicer, 2008).

The arguments made by Whittle and Spicer (2008) are coherent within their context, however they are arguments that are perhaps more indicative of an analyst's limitations as opposed to those of ANT in and of itself. A point that Whittle and Spicer (2008) acknowledge to a degree when they highlight that their "aim is not to discourage the adoption of ANT in organisation studies but rather to encourage those using ANT to be clear about the ontological, epistemological and political commitments it brings with it" (ibid:624). However, although Whittle and Spicer (2008) argue ANT is not critical because it does not fit their three way test (denaturalising, reflexivity and anti-performative). This result maybe because an analyst cannot meet the test and thus there is a loop. Whereby perhaps no theory can ever be truly critique as per the Whittle and Spicer (2008) test, as an analyst cannot be separated from the theory and the subsequent account, and analysts no matter how hard they try cannot be denaturalised. Lastly, to close on this discussion of Whittle and Spicer (2008) there is perhaps one aspect that they have failed to take in consideration, in that any critique is in a relationship with that that it is critiquing. Thus ANT's intent to bring all into the frame of analysis and trace the connections¹⁷⁶ does attempt to create an exposed terrain of all that is happening and within that the production of inequalities (Lee & Brown, 1994). Thus while an ANT account may realise explanation, it is also at the same time potentially a map for identifying inequalities and thus a useful tool for any critical scholar, which perhaps facilitates critique that might not otherwise have been possible had aspects of the research field been excluded from view via the use of a different less pluralistic 'theory.'

¹⁷⁶ Albeit with the limitations of the analyst because as McLean and Hassard (2004) outline "no piece of social research can ever be amoral or apolitical" (bid: 515).

8.4 The ANT Analysis, Data Interpretation (3)

8.4.1 Limitations, Negatives and Positives of this ANT analysis

Outside of studies on, for example; 15th century Portuguese vessels (Law, 2000), scallops and fishermen (Callon, 1986) or Louis Pasteur and Anthrax (Latour, 1993 citing Latour, 1988)¹⁷⁷ numerous studies have been done using ANT as an analytical lens in business and management studies. For example it has been used to analyse the role of accountancy in calculating customer intimacy (Cuganesan, 2008), the introduction of quality measures in chemical plants (Emsley, 2008), accounting techniques in hospitals (Lowe, 2001), activity based costing systems (Briers & Chua, 2001), the production of sustainability reports (Caron & Turcotte, 2009), the study of consultants and their enterprising behaviour in a firm (Whittle & Mueller, 2008) and business consultants selling total quality management (Legge, 2002 citing McLean and Hassard, 2004) to name a few. Further it is offered by Johnson, Langley, Melin and Whittington (2007) as a being an appropriate lens for conducting analysis on "Strategy as Practice" which aims to understand the everyday actions and behaviours of individuals in organisations and how they interact with all that surrounds them (human and non-human) in order to realise strategy. These studies are typically detailed case studies which would, for example, describe how a report or accounting technology may flow through a centre of calculation that becomes a default obligatory point of passage, and the impact this actant has on humans and their subsequent behaviour. In this regard, with reference to Whittle and Spicer's (2008) criticisms, these studies do not appear to be a simple application of Callon's (1986) four stage process rather they are detailed accounts of processes of action and the translations between human and non-human actors.

That ANT accounts are typically detailed case studies raises an obvious limitation regarding the use of ANT in this study, as a series of semi-structured interviews is self-evidently not a detailed case study. Indeed the application of ANT in this study can be viewed as being congruent with the O'Connell, et al., (2009) criticism, that in their view many studies appear to be "post-hoc analyses" (ibid: 1), especially as ANT

¹⁷⁷ Note McLean and Hassard (2004) raise a point of critique regarding historical ANT accounts in that they are likely to rely on present day ontology and an accepted mode of creating social accounts, where for example; the peculiarities of religion at a particular point in historical time are not likely to be understood by a present day analyst.

was not explicitly chosen or applied to this study's data until after conducting the interviews and the previous pieces of analysis. There is little that can be done with regard to this O'Connell (2009) criticism within the context of this study, other than asking the reader to contextualise this study as being exploratory, forgive the researcher for a late identification of a theory and to understand that if ANT was to be applied in a future study the method of data gathering would be different. For example extended access to research sites and multiple personnel would have been sought. Further as per Johnson, et al., (2007) data would have also been captured by video, to allow more explicit identification of the non-human, thus enabling the analysis to be more symmetrical in its treatment of human and non-human.

Notwithstanding that the method of data gathering may well be different for future studies. O'Connell, et al., (2009) recognise detailed immersion in the data is not the only way to conduct ANT analysis. O'Connell, et al., (2009) also argue that different levels of immersion have different "positives and negatives that flow" (ibid: 11) from them and any study should make this clear. Prior to outlining the positives and negatives regarding the level of immersion in this study, it is also worth highlighting the magnification level (Law, 2000) of the ANT analysis to be conducted in this study as this also impacts the positives and negatives regarding the use of ANT in this study.

The level of ANT analysis on the interviews in this study can be conducted at either an across the sample level or a within each interview level. The ANT analysis within this study has focused upon analysis and findings from across the sample. In this regard the ANT analysis could be simplistically understood as being applied to the findings that constitute data interpretation (1). At this level of magnification and immersion two negatives and two positives can be readily identified.

Turning to the two negatives, first, the level of ANT analysis in this study does not bring forward some of the actants in particular interviews, for example; the digital voice recorder and how some interviewees became conscious of it at particular points.¹⁷⁸ Second a series of semi-structured interviews and the time limits of these interviews, does not allow the impact of all the actants brought forward in an interview to be fully traced and even though McLean and Hassard (2004) highlight

¹⁷⁸ Consequently these non-human actors are not isobaric (Latour, 2005).

that the analyst needs to be pragmatic and not attempt to trace every single actant, the time limits of the interviews impose a clear limitation and force pragmatism into thin boundaries. The two positives of the ANT analysis in this study are first, the ANT lens does allow the impact of the non-human actor that is, principally for this study, the environment, to be brought forward more clearly. Thus human actors can to a degree be decentred and the association between the human and non-human can be more readily highlighted. Second the use of ANT in this study allows further testing of this analytical lens. Furthermore, in answer to the call of whether ANT is appropriate for use in management studies and understanding the greening of organisations (Ivakhiv, 2002; Lee & Stenner, 1999; Newton, 2002), this analysis will hopefully help to provide another indication of whether this call is appropriate.

8.4.2 Method of Analysis for this Study

The method of applying ANT to the data, for this study, is a mode or a lens and in this regard the process of analysis is a form of immersion, as opposed to the application of a template type of approach (Robson, 2002 citing Crabtree and Miller, 1992). In practical terms the method followed is, as per Whittle and Mueller's (2008) method of analysis, an "iterative movement between the data and...reading of the literature" (ibid:449). Where this iterative movement and enhanced understanding not only enables the analysis but also allows concepts used in a range of ANT studies to be brought forward; concepts such as 'centres of calculation' (for example see; Cuganesan, 2008 and Czarniawska, 2004) and overflowing (Callon, 1997).¹⁷⁹ Consequently when analysing the data the researcher was not only attempting to interpret the data via the ANT lens and a focus on work, movement and flow but he was also attempting to identify if concepts were apparent. Outside of this, the process of analysis was also informed by McLean and Hassard (2004) and their five notes of caution regarding creating an ANT account; (1) inclusion and exclusion of actors, (2) the treatment of humans and non-humans, (3) privileging and status, (4) agency and structure and (5) heterogeneous engineering.¹⁸⁰

Prior to disclosing the results it should also be noted that this account will undoubtedly suffer from the failings of the human analyst, in that "ultimately [all

¹⁷⁹ See Appendix 8, section A8.1, Table A8.1 for other ANT terms and concepts.

¹⁸⁰ For an overview on these notes of caution, see Appendix 8, section A8.1, Table A8.1

analysts engage] in a practice of ordering, sorting and selection" (McLean & Hassard: 500). However, although the analysis suffers limitations it is an analysis that attempts to follow the pragmatic advice of McLean and Hassard (2004) of producing analysis that is "sophisticated yet robust enough to negate the twin charges of symmetrical absence or symmetrical absurdity" (McLean and Hassard, 2004:516).

8.5 Data Interpretation (3): Results from using an ANT Lens

As previously indicated the organisations interviewed have missions that are environmentally orientated, with the interviewees describing that what drove them to set up their organisations was a level of concern about the environment. For example the founder of belu indicates that what drove the starting of the organisation was a desire to be "far more adventurous with organisations and helping the planet" (belu, Reed Paget, founder). Although simplistic, the aspect that underlies many of the interviewees' rationales for their organisations is evidently congruent with ANT as it involves a non-human actor, the environment. The implications of this are twofold. First the environment is clearly an actant for the research subjects and it impacts them by motivating them to innovate and formulate new organisations and products and services that they hope will realise change. Second because this actant is apparent in the interviewees' world it is evident that research subjects do not split the world into two houses, one social and one natural. Building upon this, some of the interviewees identified boundaries between the environment, society and the economy as being artificial as indicated by, for example, Dale Vince of Company B who stated "I don't see a distinction, economic, social and the environmental, yeah it seems artificial to me it's not real".¹⁸¹ Other interviewees also highlighted how the environment was not out there and by extension "another category they need to deal with" (Company D, Paul Ellis) but part of their "DNA rather than just bolted on" (Green building Store, Chris Herring, Co-founder). As such it would appear the interviewees have a view whereby it is "no longer clear whether there exist relations that are specific enough to be called [just]

¹⁸¹ See chapter 5, section 5.2 for more quotes and discussion on this aspect.

social" (Latour, 2005: 2) and by extension their world is a collective, in which the non-human has an important role.

As well as the environment being an actant for the interviewees, money is also an actant. Although the interviewees outlined that this actant is of secondary importance to the environment, its impact was present throughout the interviewees' commentary. For example: the following quote from the Ecover interviewee that "if something absolutely fantastic, fantastically ecological or sustainable cannot be done in a rentable way well then (laughs) you can do what you want but you will never be able to realise it" (Peter Malaise, Concept Manager, Ecover); or the commentary from the seventh GENERATION interviewee about how the organisation had refocused towards environmental concerns, away from social justice, in order to realise a positive cashflow; or how the founder of howies outlined that financial success encourages change in other organisations - "we want to show that there is another way to do business. So it's really important that we're [financially] successful because nobody copies failure" (howies, Dave Hieatt, Co-founder).

These two actants of the environment and money were also captured by the narrative that the organisations pursue mission and money. Where the use of the term "mission and money" highlights how the interviewees brought forward commentary about the tensions of straddling the two domains of mission and money and in so doing their continual consideration of the relationship¹⁸² between the two actants. The relationship and tension between the actants was highlighted throughout the interviews with examples of sufficiency, concerns about quoted status and comments about ensuring a monetary return to maintain the viability of the organisations.¹⁸³ In this regard the interviewees are highlighting that there is a relationship to be negotiated or translated and the organisation is an entity that is at the nexus of that. This reinforces that the organisation, is an ordering effect (Newton, 2002; Steen, et al., 2006) rather than being a final state of order and therefore it is a form of punctualisation (Law, 1992). This view is also supported by the interviewees as they are clear that they, through their organisations, will never stop, for example, looking for the "next area of social and environmental change that

¹⁸² A focus on the relationships and interactions is a key aspect of ANT (Castree, 2002; Latour, 2005; Law, 1992; Law, 1999; Law, 2000; McLean & Hassard, 2004; Newton, 2002).

¹⁸³ Furthermore, two interviewees (Terra Plana, Rosie Budhani and Company B, Dale Vine) highlighted how the relationship between the actants may vary by organisational function with their examples of how the finance departments are focused on money rather than the environment. The understanding of this variance would be a useful component of any future study on the organisations interviewed.

[they] want to influence and have an impact on" (Triodos Bank, Charles Middleton, Managing Director). Further because of this movement, the negotiation between the environment and money actants will change through time and thus the organisations are compelling themselves to continual change and redefinition. Self-evidently this commitment to change and redefinition is unlikely to be different to many organisations. However, what is particular about the research subjects of this study is that their translation comes from a perspective that primarily there are always environmental problems to be tackled, rather than perhaps being conventionally driven by a requirement to identify new sources of revenue and profit growth.

Putting the organisations as an ordering effect at the centre of a translation between environmental and financial requirements also brings forward a notion that (the organisations) are also akin to centres of calculation (Czarniawska, 2004; Cuganesan, 2008). Within centres of calculation "inscriptions of different traces are accumulated and used to act on a distant periphery" (Cuganesan, 2008:82). Similarly, the organisations accumulate and translate the different environmental and economic traces and through the translation of these produce their products and services. Further the interviewees are clear that they perceive their products as actants which act upon their customers, changing customers' perceptions of the environment. For example, Jon Lively of Recycline states an assumption that his organisation's products can change customers' perceptions, for example, "there's a consciousness of someone buying and using this toothbrush every day, its wow, every day you're using this recycled toothbrush and it's just this reminder of, hey the environment's important" (Recycline, Jon Lively, Operations Director).¹⁸⁴ What this assumption by the interviewees highlights is that they, the interviewees, are again bringing their products into the social world as actants upon humans. Thus again, the interviewees are again thinking relationally and being complicit with a central tenet of ANT that there is no distinct domain that can be called social (Castree, 2002; Latour, 2005; Law, 1992; Law, 1999; Law, 2000; McLean & Hassard, 2004; Newton, 2002).

The interviewees' perceptions of their products creating change in humans also links to Callon's (1997) idea of overflow. Callon (1997) explains the concept of overflowing by using the example of buying and selling a car where he highlights that in the

¹⁸⁴ See chapter 5, section 5.1 for similar quotes from the interviewees.

buying and selling of a car “something passes from the seller to the buyer: the car, which conveys with it the know-how and technology of the producer” (ibid: 6). The interviewees’ assumptions that their products will create change in customers’ perceptions is an example of an assumption of overflow.

Although the interviewees’ organisations have been likened to centres of calculation, the interviewees also highlight that many of the decisions they make are due to the context of their business and their customer relationships as the following quotes highlight;

“making those decisions in the long run I think has paid off because it gives us an identity that people then can say yeah, I can see the stuff you sell is organic, it’s like we’re making those sort of ethical decisions for people” (Pillars of Hercules, Bruce Bennett, Founder)

“We try to have a relationship with our customers which is based on trusting us that we will manage the business prudently” and “Our members don’t really see us so much as a business it’s more like almost a collective,... it’s more of a sense of ownership really than just a supplier/ customer relationship”...we want the relationship to be about identification with what we’re trying to achieve” (Company D, Paul Ellis)

Taking this further, the interviewees also highlighted a degree of reluctant leadership, devolved decision making through the organisation¹⁸⁵ and a desire to maintain culture. The culture aspect, in particular, was about ensuring that the organisations continued to be a “breath of fresh air” (Company D, Paul Ellis) relative to large organisations and as such their organisations did not become just another large corporate company or “dinosaur” (seventh GENERATION, Gregor Barnum, Director of Corporate Consciousness). These aspects of the interviewees’ commentary bring forward how the interviewees are continually trying to negotiate not just the environment and money but a range of different actants.¹⁸⁶ In chapter six this was discussed within a context of highlighting that the interviewees are not the sole heroes of the piece.¹⁸⁷ Within ANT these negotiations between different

¹⁸⁵ See chapter 5, section 5.3 for interviewee quotes that indicate this position of the interviewees.

¹⁸⁶ Even if those actants are potentially unfounded perceptions of what other organisations might be like.

¹⁸⁷ See Chapter 6, section 6.2.

actants reinforces how the interviewees and their intentions are not particularly foundational to strategy (Steen, et al., 2006) rather:

“Instead of a single actor in control, we have to be open to the possibility that it is an amalgam of people in various positions ... that produces the effect of strategic organization. This does emphatically not mean that managers cannot make a difference in their organizations. It does, however, open our eyes to the possibility that strategic agency might not always and necessarily permit or require a mastermind in control”. Steen, et al., (2006:307)

That the interviewees may not be masterminds in control as opposed to individuals who are continually negotiating between different actants also indicates that the interviewees are not necessarily special or different. As what is shown is that, with reference to the earlier discussion about a sociologist and their relationship with their computer and alike, the interviewees do not see themselves and cannot be seen in isolation from the relationships that make them purposeful. In this regard the ANT analysis helps debunk notions that those who are perhaps perceived as powerful are different (McLean & Hassard, 2004), as opposed to merely negotiating between a different set of actants.

One last aspect that arises from the ANT analysis concerns the interviewees' comments regarding growth and the growth of their organisations being preferable.¹⁸⁸ Castree (2002) highlights that because some agents collect power and condense it through the immutable mobile of money, these agents have a greater capacity for “capturing the agencies and powers of human and non-human others” (ibid:403). The interviewees' comments regarding growth and the rationale behind it have been discussed in chapter six. However within ANT, this desire might also be interpreted as a motivation on the part of the interviewees to make their organisations an “obligatory point of passage” (Law, 2000:9) where the organisation is a point of accumulation (Law, 2000). In this regard the ANT analysis helps to reinforce the notion that actants motivations are only concerned with strengthening their particular network (Ivakhiv, 2002), albeit in the case of the interviewees that motivation is placed within ameliorating environmental issues.

¹⁸⁸ See chapter 5, section 5.4 for quotes that illustrate this aspect of the interviewees' views.

8.6 Discussion and Implications

Despite the limitations regarding the data gathering method in this study, the analysis has helped illuminate some aspects of the data. First the ANT analysis highlights how the interviewees do not split their world into two domains and thus how they do not alternate "between subjectivity and objectivity" (Latour, 2005:227). Second the interviewees' negotiation of environment and money actants as well as customer demands and their views of other organisations highlights how the interviewees' organisations are a punctualisation or ordering effect. Further because of this continual negotiation the organisations can be viewed as "an achievement, a process, a consequence, a set of resistances overcome, a precarious effect" (Law, 1992: 8). Third the ANT lens has reinforced the notion of debunking (Mclean and Hassard, 2004) and the views of Steen, et al., (2006) that there is no mastermind in control, rather strategic agency arises from a variety of actants. Further the view that interviewees cannot be seen in isolation from that which makes them purposeful has also been reinforced. Fourth, from reviewing the ANT literature a new vocabulary can be ascribed to the organisations and some of the interviewees' views such as; the organisations being a 'centre of calculation' (Cuganesan, 2008; Czarniawska, 2004) the products having 'overflow' (Callon, 1997) and a desire on the part of the interviewees to make their organisations 'obligatory points of passage' (Law, 2000).

Outside of the points above, when reflecting upon the use of ANT in this research study, two legitimate claims against the analysis arise. First has the analysis added anything new to the analysis and discussion of the previous chapters and second has the ANT analysis enabled a critique. In dealing with the first claim, in some respects the answer is no, as highlighting that the environment is an actor in the interviewees' worlds is relatively self-evident from, for example, the mission statements of the organisations. Further that the interviewees do not see themselves as masterminds in control (Steen, et al., 2006) and that the organisations' directions involves the non-human and the human and the relationships between was discussed in chapter six. However, what the ANT analysis has done is that it has decentred the human and brought forward the non-human as a valid actor. In this regard the analysis has helped to demonstrate that a fuller understanding of similar types of organisations cannot be realised unless an analyst is using an analytical lens (such as ANT) that does not have "a fractured epistemology which separates man

from nature" (Gladwin, et al., 1995:874). In this regard this analysis does provide some support to the claims of, for example, Ivakhiv (2002), Lee and Stenner (1999) and Newton (2002), that ANT maybe a useful tool to aid an understanding of how organisations and the environment are entwined. Furthermore this analysis also reinforces Newton's (2002) claim that considering human actors as being closed entities (homo clausus) is a "limiting assumption of much of the social sciences" (Newton, 2002:530) and that the notion of open people (homines aperti) influenced by a range of human and non-human actors should be embraced (Newton, 2002).

However regardless of the points above, the analysis is perhaps still subject to the claim of has anything really been added that is not apparent from the analysis in previous chapters? While this researcher would say yes, given the points above, perhaps a final practical point can put paid to this particular claim. It concerns the process of conducting analysis and writing up research. Whereby an understanding of ANT has been an ongoing and overlapping process that did not begin at the start of this chapter after all the previous analysis had been conducted. As such this researcher would make a counter to the claim of has anything been added, by outlining that an answer to the claim cannot be made from solid ground and hence there is little point in being concerned about it. As in reflecting upon the time line of this study and the beginning of gaining an understanding of ANT it is unclear exactly when ANT became part of how this researcher views the world.

Turning to the second claim, regarding whether this ANT analysis enables a critique, the short answer is no. While as discussed above, this analysis does provide some support to the claims of Ivakhiv (2002), Lee and Stenner (1999) and Newton (2002), that ANT maybe a useful tool to aid an understanding of how organisations and the environment are entwined. It is clear that this analysis has not enabled a critique of the researched organisations. This is perhaps understandable given this research was set up as an exploratory study and thus the research subjects and data were never approached with a particular critique to explore as opposed to a quest for understanding and exploration of the research questions. Thus in many regards the claims of Whittle and Spicer (2008) are supported, as within the bounds of this study, ANT is not a critical theory of organisations.

However even though the counter to the claims above may be limited, this analysis has reinforced the importance of an individual's economic votes (Dickinson & Carsky, 2005) or simply how individuals spend their money. As if it is accepted that trade with organisations will continue to exist and much of that trade will be facilitated with money, then the economic vote is critical as it reinforces behaviour or in ANT terms strengthens a particular network. Thus, while this researcher would not argue that the types of organisations interviewed for this study are an answer to environmental and social degradation. There is an argument that if all organisations operated in the manner of the organisations interviewed, environment and social degradation may be a less pressing issue but pressing none the less.¹⁸⁹ Thus to slightly alter the intention of a quote of Dave Hieatt's, co-founder of howies, "if we believe in [it] then let's [do] more of it," the argument is, if money is accepted as a "steering media" (Laughlin, 1991:218 citing Habermas (1981a/1984) and Habermas (1981b/1987)) then spending money with the organisations researched is a form of response to help enable the greening of society. This argument could be seen as condemning individuals to a consumer society and the individual accumulation of goods and the pursuit of growth on a finite planet. Thus running counter to arguments put forward by, for example, Daly (1996) and Jackson (2009). However, that is not the intention, rather this argument is about recognising that individuals do buy products and services and while this critique is not advocating the buying of more per individual, something not even the interviewees' advocate, customers perhaps should buy those goods and services that appear to be complicit with realising more socially and environmentally benign outcomes. There is another obvious critique that arises from this and that is, how is an individual going to recognise an organisation that is attempting to realise more benign outcomes as opposed to one that is perhaps engaged in a form of green wash? To this, there is no simple answer, other than the individual has to engage in the hard work of analysing the organisations that provide the offerings and thus attempt to be informed.

Consequently this analysis has perhaps brought forward a critique and it is a critique of the individual. In that the individual should use their economic votes to reinforce that which they believe in. Although this critique is not particularly sophisticated, it

¹⁸⁹ "If every company on the planet would adopt the best environmental practices of the leading companies, the world would still be moving towards sure degradation and collapse. So if the world's most intelligent managers cannot model a sustainable world, then environmentalism as currently practised by business is only part of an overall solution" Devereaux Jennings and Zandbergen (1995:1022 citing: Hawken, 1993: 55).

is consistent with ANT in that behind it is an argument that there is no societal structure as opposed to the traces of associations, with the immutable mobile of money being a powerful force in realising particular associations. Further, if Newton's (2002) comment that "the greening of organizations is intertwined with the broader project of greening societies" (ibid: 523) is accepted and the relationship between society and organisations is key, then where that relationship is mediated by money, there is a reflection back onto the importance of how money is spent and thus the individual and their economic votes. Finally, this argument, evidently, falls within the bounds of individuals who have discretion in what they purchase and more broadly consumer society. Consequently, the organisations interviewed are perhaps enabling of ecologically and socially sustainable development within the bounds of a consumer society and given this, they perhaps represent an environmental vote that might otherwise not be made. As such their growth and proliferation should perhaps be encouraged.

Outside of the discussions above, this analysis has highlighted how multiple actants are negotiated in organisations and thus it reinforces that any study that does not account for the non-human is a partial analysis at best. Further, this involvement of multiple actants highlights that concepts such as competitive advantage where motivations are reduced to only financial concerns is partial, limited and ultimately require updating. In this regard this analysis has provided an insight into how a future study, discussed below, could be conducted in order that more robust evidence could be gathered to enable some conventional management theories to be rigorously challenged.

As mentioned previously this ANT analysis is limited and actants cannot be fully traced, because of the limited amount of data gathered. For example money as an actant cannot be fully traced for its influence across a range of personnel and organisational functions. Similarly the actants impacting notions of sufficiency cannot be fully traced.¹⁹⁰ Consequently a future study should aim to gather data over an extended period of time, where there is open access to the organisations, their personnel, meetings and artefacts such as reports and presentations. Further the

¹⁹⁰ For example, what is the full range of actants and what is their balance? Do interviewees own desires impact levels of sufficiency and if so how?

data capture should rely not just on audio recording but also video recording,¹⁹¹ questionnaire, workshops and seminars.¹⁹² As this variety in media and methods would allow exploration from a different perspectives and thus enable the data to be cross checked, enhancing its reliability and generalizability. Further through extended access and a variety of data capture methods it is likely that actants could be more fully traced. For example, is the economic actant a set of assumptions that can be traced to being the terms of finance from a bank manager or desires regarding a new house or holiday?

With regard to the focus of a future study, this analysis has reinforced the importance of the non-human actor. Any future study should attempt to draw out the peculiarities of all actants and fully trace their influence. For example, assessing which aspects of the organisation are more impacted by one actant relative to another and why? To illustrate, within this study two interviewees highlighted that finance functions are more focused on money than the environment. Is this pattern repeated for different organisations and organisational functions? Further what is the balance across different organisations and functions and how is the balance negotiated?

In sum a comprehensive study such as that described would allow the impact of different actants to be more fully traced and thus better enable a challenge to conventional management theories that are focused on money and profits alone (Gladwin, et al., 1995; Shrivastava, 1995a,b&c). Further if a study such as this was cross matched with organisations that are not environmentally orientated results would have added validity.

To close this discussion and implications section, although the ANT analysis on the interview transcripts is relatively simplistic it has brought to fore and reinforced that the non-human is an actant in environmentally orientated organisations. It has also reinforced, for the researcher, the importance of economic votes as money is a key steering media. Outside of this, the analysis has helped to highlight how any concepts that are reductionist and assume that action occurs in separate realms or

¹⁹¹ For example, a video recording would make it easier to observe how human actors interact with non-human actors such as management reports or products.

¹⁹² It would be intended that any workshops and seminars would be recorded either by video recorder or audio recorder, depending upon permissions.

are focused on simple ends are quite simply wrong (Guattari, 1989). Finally it has facilitated an understanding of how a future study could be conducted. A study that might challenge conventions and help produce theories that enable more sustainable outcomes to be realised.

Summary and Conclusions

This chapter has discussed Actor-Network Theory (ANT) and its application to the research data. In so doing it has covered six areas; (1) a discussion of why ANT was used as a theoretical lens for this research, (2) an explanation of ANT, (3) a review of some critiques of ANT, (4) a discussion of the process of conducting the ANT analysis, (5) the results realised from the ANT analysis and (6) a discussion of the results.

In short, the ANT analysis conducted has proved useful in decentring the human actor and outlining that the interviewees bring the non-human into their world, indicating they do not split their world into social and natural realms. As well as this the ANT lens has reinforced the debunking of notions that those at the top of organisations are necessarily different to anyone else and that there is a mastermind in control of organisations' strategic directions rather than a variety of actants having an impact (McLean & Hassard, 2004; Steen, et al., 2006). The analysis has also highlighted how organisations are a form of punctualisation (Law, 1992) and akin to centres of calculation (Cuganesan, 2008; Czarniawska, 2004) as well as being supportive of the claim that ANT might be a useful tool for understanding the greening of organisations (Ivakhiv, 2002; Lee & Stenner, 1999; Newton, 2002).

Outside of these points, the ANT analysis has not provided a critique of organisations but it has reinforced the importance of economic votes and served as a primer for how a future ANT study that more rigorously challenges conventions might be conducted. To summarise this analysis has highlighted the shortcomings of reductionist management concepts and how "it is quite simply wrong to regard action on the psyche, the socius, and the environment as separate. Indeed, if we continue – as the media would have us do – to refuse squarely to confront the simultaneous degradation of these three areas, we will in effect be acquiescing in a general infantilization of opinion" (Guattari, 1989:134).

Chapter 9

Summary and Reflections

Introduction

This chapter attempts to summarise the key messages of this thesis. Also this chapter brings forward considerations for future research, and the contributions of this study. It begins by first summarising the previous chapters, second discussing potential future research and third the contributions of the study. This third area, the contributions of this study, also incorporates a discussion of the research and its findings that is perhaps less privileging¹⁹³ relative to the commentary of previous chapters. After moving through these three areas the chapter closes with some brief comments of reflection and a quote from Guattari (1989) which attempts to capture the overarching message, to the researcher's mind, of the study.

9.1 Route Taken through the Previous Chapters

At the core of this exploratory study was an attempt to understand whether business organisations can be part of the solution to environmental and social degradation. In particular the research intended to identify if there are any business organisations which have an environmental paradigm. Particularly as organisations with environmental paradigms are supposedly necessary if organisations and management studies more widely is going to support ecologically and socially sustainable development (Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna, 1995; Halme, 1996; Kilbourne, et al., 2002, Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a).

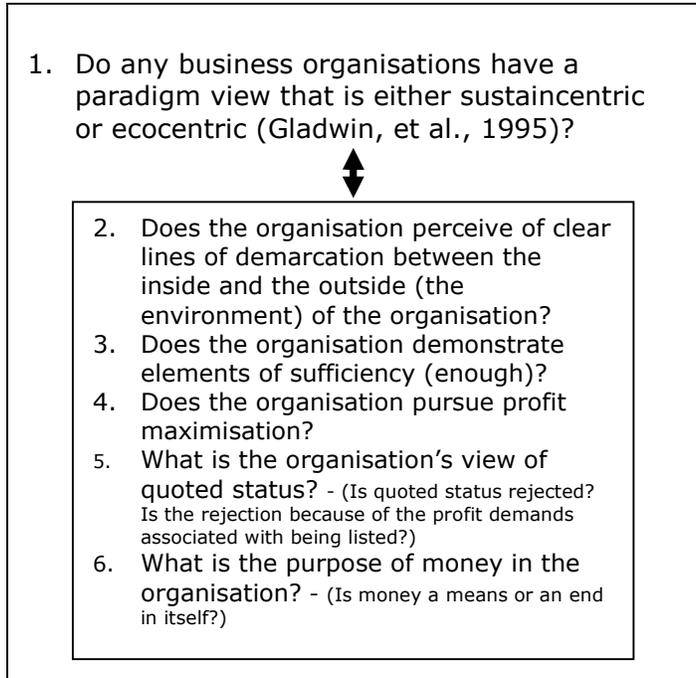
¹⁹³ In this context the term privileging is being used to highlight how for some readers the commentary of previous chapters could be seen as hopeful and positive.

The study focused upon six research questions, one primary and the others secondary (Figure 9.1).¹⁹⁴ The primary question focused upon a paradigm scheme offered by Gladwin, et al., (1995)

with the five other questions allowing the exploration of particular tensions that support the investigation of paradigm adherence and the exploratory nature of the study. These questions were developed in the literature review chapter (chapter two). The literature review began, after a brief statement of the case regarding environmental degradation and the importance of organisations as actors, by defining the term paradigm. A paradigm was defined for this study as “a world view or frame of meaning which is

composed of shared values, core beliefs and assumptions of the members of a certain group” (Halme, 1996:97). The review then discussed how paradigms, in the context of this enquiry, are typically presented as a range in the management literature from a pole of anthropocentrism to another pole of ecocentrism, with various gradations in between. Further, scholars (for example; Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995; Gopalkrishnan, 1999; Hanna, 1995; Halme, 1996; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a) make the argument that organisations need to move from an anthropocentric paradigm, the current paradigm of operation for organisations, towards a paradigm such as sustaincentrism or ecocentrism as these

Figure 9.1: Research Questions



¹⁹⁴ The research questions are developed in chapter two. As outlined in chapter 2, section 2.3.2; given this research is motivated from a perspective of environmental concern, research questions five and six do carry with them some assumptions of what may be found with the researched organisations, these assumptions are highlighted in the bracketed text. Please note that when interviewing the organisations, the bracketed text was not asked as is, rather the bracketed question if asked was asked in an open manner that allowed the interviewees to outline their views without being ‘led’ by the researcher.

paradigms embrace the environment. Furthermore, in so doing organisations will be able to help enable ecologically and socially sustainable development.

After discussing various critiques levelled at the paradigm schemes, such as how the poles of anthropocentrism and ecocentrism are effectively strawmen as their constituent assumptions are either challenged by research or suffer with issues of acceptability (Egri & Pinfield, 1999; Hanna, 1995). It was highlighted that this study intended to identify if any business organisations operated to sustaincentric or ecocentric paradigm (Gladwin, et al., 1995). Further in support of this primary question and in keeping with the exploratory nature of the study, five questions on boundaries, sufficiency, profit maximisation, quoted status and the purpose of money were developed.

After developing the research questions, how the study defines an organisation was outlined. An organisation was defined as a tool (Morgan, 2006) used by individuals to shape their future (Sarasvathy, 2004) and the glue that holds organisations together is values, and assumptions (Katz & Kahn, 1966; Kornberger, et al., 2006; Shafritz & Ott, 1992) or in other words paradigms. Following this, open systems theory was brought forward as the theory for conceptualising an organisation. This discussion also highlighted that typically metaphors get attached to organisations such as them being akin to machines or organisms (for example see; McAuley, et al., 2007; Morgan, 2006; Shafritz & Ott, 1992) and that this can result in orgocentric (Egri & Pinfield, 1999) views and a focus on the organisation as a unit of survival. Through this discussion it was made clear that in commencing this research there was no attachment of a metaphor to an organisation or the ascribing of orgocentric views. As although the research was looking to identify whether organisations can be part of a solution, there was not and has never been at any time throughout this research a view that organisations are a solution or a unit of survival that must be saved.

Following the development of the research questions, the sociological paradigm of this research (Burrell & Morgan, 1979) was highlighted (chapter three). This discussion outlined that this research has a realist ontology, positivist epistemology, deterministic view of human nature, is nomothetical in its methodology and sits within a functionalist paradigm, particularly at its commencement. Importantly this

chapter also outlined that the ontological and epistemological position of the study did not necessarily equate to that of the researcher, even though Burrell and Morgan (1979) argue that the position of the research and the researcher are typically equivalents.¹⁹⁵ Following this the research method (semi-structured interview) and how this method was consistent with other studies (Andersson & Bateman, 2000; Brych, et al., 2007; Egri & Herman, 2000; Halme, 1996) and the exploratory nature of the research was discussed. This chapter closed with a discussion of how the potential research population was focused upon organisations with environmentally orientated missions¹⁹⁶ and the interviewing of the key executives within those organisations, particularly as the views of a senior executive(s) of an organisation is a useful proxy for understanding an organisational paradigm (for example see; Plaza-Ubeda, et al., 2007).

Chapter four disclosed the research sample and the process of data analysis. It was highlighted how 25 individuals, predominantly founders or directors, from 23 organisations were interviewed¹⁹⁷ between August 2007 and January 2008. Further the organisations had a variety of ownership structures, were a range of sizes and operated in a breadth of different business areas. After profiling the sample and highlighting some peculiarities such as the interviewing of an individual with the title of 'Director of Corporate Consciousness' the process of analysing the interview data was discussed. Here it was highlighted that multiple iterations were conducted to not only provide the researcher with confidence but also to realise different data interpretations. Further the analysis process included (1) a content analysis identifying the key messages from the interviews, (2) a content and template type analysis to understand whether and if so how the interviewees correspond to the paradigm scheme of Gladwin, et al., (1995) and (3) an immersion type analysis using an Actor-Network Theory lens. After outlining this process some notes of caution regarding the analysis of interviews such as the deficiencies of the human as an analyst and holistic nature of conversations were discussed.

¹⁹⁵ See Appendix 3; section A3.7 for a reflection note on the Burrell and Morgan (1979) framework.

¹⁹⁶ It was also highlighted how this brought some bias into the research. As the focus on environmentally orientated organisations indicates how the researcher wanted to speak to individuals that are likely to positively answer the research questions. However, with the benefit of hindsight it might have been appropriate to also include some non-environmentally orientated organisations in the sample in order to enhance the validity of any results gathered.

¹⁹⁷ As highlighted in previous chapters, the interviewees did not receive the interview questions prior to the interviews being conducted.

The discussion then moved to chapter five and a release of key messages.¹⁹⁸ This release focused on using interviewee quotes with minimal researcher discussion in order to allow the reader to 'hear' the interviewees for them self. The messages that arose from the interviewees were numerous and covered how they saw the purpose of their organisations as creating change in society and or their industry of operation through to how they considered the relationship between the economy, society and the environment, money being a means, examples of sufficiency, a rejection of quoted status, their reluctant leadership and love.

Chapter six discussed the interviewees comments' brought forward in chapter five. The interviewees' commentary was summarised under narratives of mission and money and pioneers, with the mission and money narrative, in the opinion of this researcher, being the key narrative. The narrative of mission and money attempted to reinforce that mission is a primary concern for the interviewees but that they also balance this against ensuring they have enough money for the organisation to survive. However, money is not an equivalent, it is a means to help enable the organisation to realise its mission. Overlaid on this was a view from some of the interviewees that their organisation is not a unit of survival merely a tool and the organisation's ultimate survival is not paramount. This then led to the application of an aphorism to the interview sample of them being "altruistically selfish and selfishly altruistic" (Maturana & Varela, 1998:197). This aphorism attempts to capture how the interviewees do not take a narrow view of their organisations but see them within a wider societal and environmental context.

The second overarching narrative from the interviewee quotes concerned them being pioneers. This discussion highlighted how this view from the interviewees is consistent with other research (Isaak, 2002) and also consistent with conventional management notions of competitive advantage (Grant, 1995) and ensuring economic survival. However, at the same time this discussion also punctured the myth of the interviewees being held aloft as hero pioneers, as it brought forward that much of what the interviewees and or their organisations do makes sense within their

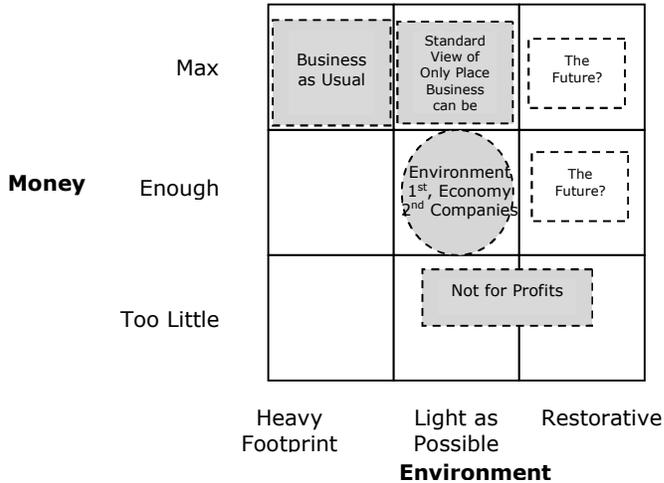
¹⁹⁸ These messages arise from the researcher's interpretation, via the processes of analysis, of the research subjects' commentaries when considered within a wider context of the range of literature read to support this study. In addition a reflection note has been added to appendix 4; section A4.4 which discusses this further. The range of analysis conducted on the data is discussed fully in chapter four. Lastly, please note as previously indicated when discussing the research questions and their normative underpinnings, there were no expectations regarding this research and the commentary that may arise from the research subjects.

context. Thus the argument was made that while the interviewees' organisations may be identifiable the individuals and or the organisations should not be regarded as heroes.

The third area of chapter six reflected the interviewees' comments against the six research questions. Here it was highlighted that the interviewee comments indicated that, in the opinion of the

researcher, the primary research question was answered unsatisfactorily and required further analysis (the subject of chapter seven). This chapter also brought forward the interviewees' view on love and their questionable assumption regarding the power of their products to change customers' perceptions was discussed. Penultimately the chapter outlined what is ultimately a flawed but perhaps useful conceptual model (Figure 9.2) that belies the background of the researcher and the apparent preference for matrices in management education (Whittington, 1993). Finally this chapter closed with a brief but optimistic view that perhaps the organisations interviewed represent a 'future normal' for how businesses might conduct themselves.

Figure 9.2: 3x3 Environment vs Money
(As is operation and the Future?)



assumptions, indicates that it is perhaps easier for an individual to be compartmentalised in these assumptions relative to economic assumptions, as an organisation necessarily interacts with a wider economy whereas an individual's views can remain with the self. It was also highlighted how the findings are consistent with other studies (Brych, et al., 2007; Egri & Herman, 2000) as well as claims made by Shirvastava (1995a) that organisations with environmental paradigms can be recognised as such via their mission statements. Nevertheless, given the exploratory nature of this research and the ambiguity of the paradigm scheme, in any future research it might be appropriate to interview individuals from environmentally orientated organisations and cross match their assumptions against interviews conducted with individuals from non-environmentally orientated organisations, as this would potentially enhance the validity of any results regarding the peculiarities of environmentally orientated organisations. Lastly it was highlighted that given Gladwin, et al.,'s (1995) paradigm scheme is fifteen years old and widely cited it may be appropriate for the scheme to undergo a current state review and perhaps be updated.

Chapter eight completed the analysis on the interview data and covered the application of Actor-Network Theory (ANT) to the data. This chapter consisted of an explanation of why ANT was chosen for the study, what ANT is and a discussion of critiques of ANT. The results from the ANT analysis highlighted a decentring of the human actor and the impact of the environment and money as non-human actors upon the interviewees. This analysis also brought forward how the interviewees do not split their world into social and natural realms and how a variety of actants are involved in the strategic agency of the organisations and that the senior individuals are not necessarily special (McLean & Hassard, 2004; Steen, et al., 2006). Further the analysis indicated how ANT concepts such as punctualisation (Law, 1992), overflow (Callon, 1999) and centres of calculation (Cuganesan, 2008; Czarniawska, 2004) are apparent from the interviewees' commentaries. However the ANT analysis did not realise a critique of organisations and in this regard it was thus complicit with Whittle and Spicer's (2008) arguments regarding ANT. Nevertheless the analysis did bring forward the importance of the economic vote in enabling particular associations that will help enhance the greening of society and organisations (Newton, 2002). Furthermore it also reinforced how any analysis of organisations such as those interviewed must account for the role of the non-human actor.

Likewise management concepts focused on singular aims are likely to contribute to an infantilization of opinion (Guattari, 1989). Outside of these points, the ANT analysis also provided an understanding of how a comprehensive, convention challenging ANT study could be conducted, a study that would use a variety of data capture methods and focus upon the impact of different actants inter and intra organisations.

9.2 Potential Future Research

Although this study was limited in its conception and although that limited conception was appropriate at the time, with the benefit of hindsight there are two key areas of learning and development that this researcher would advise are taken forward into future studies. First, with regard to data capture, this study has shown that environmentally orientated organisations do not split their world into two houses, one social and one natural rather human and non-human actors impact their views. Hence any future studies would be advised to rely not just on interviews and audio recording but also a variety of data capture methods such as video recording, meeting observations, seminars and workshops as well as artefacts such as organisational reports; as a multitude of methods would provide not only a range of material that would help capture the impact of the non-human, but also a variety of opportunities to investigate the impact.

Second, if future research were to be focused upon or incorporate an investigation of paradigms, it would be advisable to: (1) use a paradigm adherence questionnaire that incorporated a Likert type scale to support the research; (2) administer the questionnaire across a range of personnel in an organisation(s) (3) review the paradigm scheme in the light of current knowledge and if appropriate bring it up to date; and (4) cross-match any testing of paradigms in environmentally orientated organisations with non-environmentally orientated organisations as this would help validate findings and enhance an understanding of whether paradigms do influence behaviour.

Outside of the points of learning and development above, potential future research agendas might focus on a number of areas. First a study of the motivations of founders of environmentally orientated organisations and within this their

assumptions regarding environmental issues. A study such as this would prove particularly useful as a shortcoming of this study was that environmental issues were essentially treated as a black box and not investigated. However given the individuals believed their organisations can create change and similarly their organisations will continually look for the next environmental and social issues upon which they can believe they can have an effect, a study of motivations would allow an understanding of whether the focus of the organisations is perhaps skewed by a particular set of assumptions, for example the requirement for profits or an acceptance of modernity, relative to others. Further this would then allow an enhanced understanding of whether these organisations can be part of a solution to environmental issues and have the necessary set of assumptions to change through the longer term or whether because of their views, their efforts will always be skewed and marginal. In other words a study to realise a better understanding of who the organisations believe they are helping and why, as this understanding would enable a better understanding of the potential of the organisations to be part of a solution to environmental and social issues. Thus are the organisations led by environmentalists using the tools of business or are they led by businessmen who see an opportunity in the environment? As even though the difference between these two labels maybe semantic at any particular point in time, through the longer term the difference will be accentuated as it potentially indicates the degree to which an organisation will strive to create changes that help a full range of environmental and societal issues.¹⁹⁹

Second, as discussed in chapter eight, an ANT study that used a variety of data capture methods and focused on understanding the impact of different actants upon conventional management conceptions such as strategy and competitive advantage in environmentally orientated and non-environmentally orientated organisations would prove useful, particularly given the claims by for example; Bannerjee (2003), Gladwin, et al., (1995) and Shrivastava (1995a) that conventional understandings of strategy and competitive advantage need to change and incorporate the natural environment. A comprehensive ANT study would perhaps allow the redefinition of

¹⁹⁹ For example, none of the organisations had developed a social tariff for their products or services or a form of self select tariff. Whereby customers could access products or services based upon ability to pay and thus individuals with less disposable income could pay less for a product relative to individuals with higher incomes paying more for the same product. Thus the individuals paying more would know that some of the premium they were paying was to enable greater equality in access to environmental products.

core concepts away from a reductionist focus on money and infinite growth to be made with greater validity. Furthermore through this students of management might be able to be armed with theories that better enable them to meet the likely environmental challenges of the future.

Third, a study on the impact the types of organisations interviewed have upon parent organisations after they are bought would prove insightful to understanding whether the organisations become captured or can continue to be agents of change. Fourth a more comprehensive study to clarify whether owner controlled organisations similar to some of those interviewed challenge the findings of other studies regarding owner controlled organisations typically seeking high profits and moderate growth (Whittington, 1993) would prove useful. Fifth research to quantify how prevalent the sort of organisations interviewed are; their number, their customer bases, the percentage of the population that interact with this type of organisation, and their rate of job creation may shed light on the potential economic impact of these sorts of organisations and their ability to help realise wider systemic change. Sixth research to understand potential legislative changes that might encourage or dissuade similar types of organisations would also prove useful. Seventh, a study that aimed to identify environmentally focused organisations that failed (if they could be identified and the individuals involved in them located) and the reasons for this failure would provide valuable insights when juxtaposed against the organisations interviewed for this study. Finally, there are possibilities for a range of studies that explore whether organisations of this nature tend to be certain sizes and what happens to them as they grow in size.

9.3 Contributions of this Research

This study has made a limited contribution to its wider field of study, nevertheless it has hopefully helped move the field ever so slightly further forward. The study makes a contribution regarding its findings as interpreted from the interviewees' commentaries and the coding of this data, in particular, it has identified that there are organisations that incorporate an environmental paradigm. Hence in this regard, if the incorporating of an environmental paradigm by business organisations enables such organisations to be part of the solution to environmental and social

degradation, then the study has achieved its primary aim, as defined by the primary research question, and made a contribution. However as highlighted throughout the chapters, because of the exploratory nature of the study, the limited data captured and the subsequent concerns regarding not cross-matching the sample and the ambiguity of the paradigm scheme, this is a qualified statement; that should in the opinion of the researcher be tested more thoroughly in future studies. Outwith this primary finding, the study has made a contribution by highlighting the interviewees' views, for example with regard to boundaries, profit maximisation, sufficiency, quoted status and the purpose of money. These aspects when coupled with the indications from the study of the non-orgocentric views and non-anthropocentric views of the interviewees are useful teaching points, particularly when reflected against the commentary of many business texts and the meta-narratives of the media regarding how business is conducted (Collison, 2003; Cummings, 2005). Similarly, the aphorism (altruistically selfish and selfishly altruistic) and the conceptual model developed offers some new points of consideration for all students of business and management regarding what a business is for and how a business might develop its future strategy. Taking this further, the study has also indicated that organisations such as those interviewed might hold new conceptions of strategy and competitive advantage that are not relative, focused on artificial boundaries and monetary value alone (for example see; Grant, 1995; Porter, 1985), but rather involve a variety of actants and as such are more complicated concepts than currently taught. Similarly the highlighting of a variety of actants impacting strategic agency and the debunking of masterminds in controls (McLean & Hassard, 2004) provides indications that axioms regarding the heroic executive do not hold.

Notwithstanding this, the ANT analysis has supported the argument put forward by Whittle and Spicer (2008) that ANT does not enable a critique of organisations. However, it has reinforced ANT's usefulness as a tool for decentring the human and studying the impact of the non-human and it has reinforced the notion of a flatland. A critique brought forward by the analysis is a point of reflection regarding individuals and their economic vote and how this reinforces an imperative of responsibility (Jonas, 1984) on every individual who has discretion in their use of economic votes. An imperative that is inherent within the arguments put forward by those who promote paradigm change (for example; Colby, 1991; Devereaux Jennings & Zandbergen, 1995; Egri & Pinfield, 1999; Gladwin, et al., 1995;

Gopalkrishnan, 1999; Hanna, 1995; Halme, 1996; Kilbourne, et al., 2002; Pauchant, 1996; Purser, et al., 1995; Purser & Montuori, 1996; Starik & Rands, 1995; Shrivastava, 1995a) and most likely those who read such articles, for example the author of this dissertation.

Outside of the above, it could be argued that the study has taken a privileged view of the research subjects and their commentary and in so doing painted the contributions of this study in an optimistic or hopeful light. This criticism perhaps has some validity however the focus throughout the thesis has been to convey the quotes from the interviewees. Further privileging is perhaps only relevant if a balanced argument is not presented. However, the interviewees continually raised tensions in their commentaries that are brought forward, as demonstrated in previous chapters, for example the interviewees view growth as being preferable for their organisation but not when taking a macroeconomic and planetary impact perspective. However, any notion of privileging aside it should be highlighted that the organisations interviewed are, at best, a handbrake on the rate of environmental destruction they are not enabling a change of course.²⁰⁰ This said, the interviewees' surfacing of tensions and their desire to be pioneers and show there is another way to do business, does leave this researcher with hope that in the future these organisations could adapt and change enough to lead business into more sustainable²⁰¹ practices.

Close

It is hoped that this study has shown that organisations can be more adventurous in terms of pursuing more environmentally and socially sustainable outcomes while still

²⁰⁰ It should be noted that a capitalist economy and a continual drive for growth on a single planet that is approaching its limits (Meadows, et al., 2005) results in a context where the notion of monetary profit is incompatible with sustainability. The organisations interviewed had a requirement for monetary profit because of the capitalist economy in which they operated; as a result it is reasonable to assume that although the organisations may enable a deceleration in the rate of environmental destruction and thus they are more sustainable than conventional organisations, the researched organisations are not an answer. Further it should be noted that there may be contexts in which monetary profit is not incompatible with sustainability, such a context might include a much reduced population thus providing 'ample room' for growth.

²⁰¹ Sustainable as used here is intended as the opposite of an unsustainable activity. Where an unsustainable activity can be defined as follows: "an environmentally unsustainable activity [can be] simply taken to be one which cannot be projected to continue into the future, because of its negative effect either upon the environment or on the human condition of which it is part" (Ekins, 2000:6).

being financially viable businesses, albeit over the long term that is a limited conceit. Further it is hoped that the aphorism of altruistically selfish and selfishly altruistic is useful and that the organisations are a demonstration of, as per their own words, a future normal and a reinforcement of a quote from Guattari (1989) that is hopefully becoming more and more accepted.

"A market system which regulates the distribution of financial and social rewards for human social activities on the basis of profit alone, is becoming less and less legitimate" (Guattari, 1989:145)

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Appendix 1

Personal Reflections

A1.1 – Personal Reflections

Although of passing significance to the core of the study and its findings, the points below capture two further personal reflections.

- **Linearity** – One of the challenges of writing the report of this study has been that any narrative has a beginning, middle and end and reads from left to right. While the telling of a linear story is required for a reader, there is, to my mind, a degree of incongruence between the doing of this study and the writing or reporting of it. This study did not unfold in a linear fashion and at times this researcher was extremely lost and confused. This is perhaps the nature of all PhD studies and or exploratory research where an individual might be unsure of the exact purpose of the questions and the answers that will emerge. Nevertheless it is, to the mind of this researcher, important to capture this point of reflection, as writing involves a degree of refraction and enforced linearity through which the messiness of doing the study is transformed into a relatively tidy, linear story.
- **Motivation** – The motivation for conducting this study was built upon a desire to challenge management theories that separate man and nature. In so doing it was hoped that the research would be the start of a long, perhaps lifetime, project of redefining management theory within which there would be a focus on strategy and its definition. A project that would hopefully facilitate a questioning of the purpose of business organisations. This motivation arose not only from the evangelical implorations of numerous management scholars (for example: Gladwin, et al., 1995 and Shrivastava,1995a) but also from a concern that organisations operate as if they are closed entities and units of survival, where in so doing organisations and the individuals within them lose sight of a wider perspective. A wider perspective that would allow the individuals working in organisations to understand that the so called rules only work because they are reinforced and while reinforcement is perhaps self serving in the short term it is probably self limiting in the medium to longer term.

Appendix 2

Appendix to support Chapter 2

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Introduction

This appendix outlines the components of different paradigms as described in the articles used to support the literature review's (chapter 2) discussion on paradigms. The final table in this appendix outlines components of key studies.

A2.1 – Dunlap and Van Liere (2008)

Table A2.1 : Elements of the Dominant Social Paradigm (DSP) and the New Environmental Paradigm (NEP) as offered by Dunlap and Van Liere (2008)

Elements of the DSP	Elements of NEP
<ul style="list-style-type: none"> • Belief in abundance and progress • Devotion to growth and prosperity • Faith in science and technology • Commitment to laissez-faire economy • Limited governmental planning and private property rights 	<p><i>Note these are the questions that Dunlap and Van Liere used in their survey where some of the questions were worded negatively and some positively, with respondents answering on a Likert scale.</i></p> <ol style="list-style-type: none"> 1. We are approaching the limit of the number of people the earth can support 2. The balance of nature is very delicate and easily upset 3. Humans have the right to modify the natural environment to suit their needs 4. Mankind was created to rule over the rest of nature 5. When humans interfere with nature it often produces disastrous consequences 6. Plants and animals exist primarily to be used by humans 7. To maintain a healthy economy we will have to develop a steady state economy where industrial growth is controlled 8. Humans must live in harmony with nature in order to survive 9. The earth is like a spaceship with only limited room and resources 10. Humans need not adapt to the natural environment because they can remake it to suit their needs 11. There are limits to growth beyond which our industrialised society cannot expand 12. Mankind is severely abusing the environment

A2.2 – Gopalkrishnan (1999)

Table A2.2 : Anthropocentric and Ecocentric Perspectives (adapted from Eckersley 2003) as offered by Gopalkrishnan (1999:275)

	Anthropocentric	Ecocentric
Axiology	Exploration of new opportunities for human emancipation and fulfilment in an ecologically sustainable society	Exploration of new opportunities for emancipation that recognises moral standing of the human as well as nonhuman worlds
Ontology	The nonhuman world is a storehouse of resources that bears instrumental value to human ends	The non human world is important for its own sake
Dominant Concerns	<ul style="list-style-type: none"> • Efficient use of productive resources so as to minimise waste at higher output levels • Ensuring the quality or overall state of health and resilience of the physical and social environments • Aesthetic and spiritual appreciation and preservation of nature 	<ul style="list-style-type: none"> • Recognition of different needs of all human as well as nonhuman life forms • Protection of threatened ecosystems irrespective of their use value or importance to humans • Dynamic and symbiotic approach to land management and wild nature
Vision of business ethics	Provide technological solutions and innovative products that do not reduce human quality of life	Re-orient business policies, operations and products to ensure ecosystem health

A2.3 – Colby (1991)

Table A2.3 : Basic Distinction between Five Paradigms of Environmental Management in Development (1991:196)

Although Colby (1991) offers five paradigms he argues that these paradigms are in a “period of flux” (ibid:209) and consequently the paradigms intermingle. A claim supported by Gladwin, et al., (1995) who argue that their three paradigms are not “monolithic” or “photorealistic” (ibid:881)

Paradigm /Dimension	Frontier Economics	Environmental Protection	Resource Management	Eco-Development	Deep Ecology
Dominant Imperative	Progress as infinite growth and prosperity	Tradeoffs as in ecology versus economic growth	Sustainability as necessary constraint for green growth	Co-developing humans and nature; redefine security	Eco-topia, anti growth, constrained harmony with nature
Human-Nature Relationship	Very strong anthropocentric	Strong anthropocentric	Modified anthropocentric	Ecocentric?	Biocentric
Dominant Threats	Hunger, poverty, disease, natural disasters	Health impacts of pollution, endangered species	Resource degradation, poverty, population growth	Ecological uncertainty, global change	Ecosystem collapse, Unnatural disasters
Main Themes	Open access, free goods, exploitation of infinite natural resources	Remedial/defensive, legalise ecology as economic externality	Global efficiency, economise ecology, interdependence	Generative restructuring, ecologies economy and social system, sophisticated symbiosis	Back to nature, biospecies equality, simple symbiosis
Prevalent Property Regimes	Privatisation (neoclassical) or nationalisation (Marxism) of all property	Privatisation dominant, some public parks set aside	Global commons law for conservation of oceans, atmosphere, climate, biodiversity	Global commons law and local common and private property regimes for intra and inter generational equity and stewardship	Private plus common property set aside for preservation
Who Pays?	Property owners (public at large, especially poor)	Income tax payers (public at large)	Polluter Pays (producers and consumers) (poor)	Pollution prevention pays, income indexed environmental taxes	Avoid costs by foregoing development
Responsibility for development and management	Property owners: individuals or state	Fragmentation: Development decentralised, management centralised	Toward Integration – across multiple levels of government	Private/Public Institutional innovations and redefinition of roles	Largely decentralised but integrated design and management
Fundamental Flaws	Creative but mechanistic, no awareness of reliance on ecological balance	Defined by frontier economics in reaction to deep ecology, lacks vision of abundance	Downplays social factors, subtly mechanistic, doesn't handle uncertainty	May generate false security, magnitude of changes require new consciousness	Defined in reaction to frontier economics, organic but not creative, How reduce population?

A2.4 – Shrivastava (1995a)

Table A2.4 : Traditional versus Ecocentric Management (1995a:131)

Paradigm/ Dimension	Traditional Management	Ecocentric Management
Goals	<ul style="list-style-type: none"> • Economic growth and profits • Shareholder wealth 	<ul style="list-style-type: none"> • Sustainability and quality of life • Stakeholder welfare
Values	<ul style="list-style-type: none"> • Anthropocentric • Rationality and packaged knowledge • Patriarchal values 	<ul style="list-style-type: none"> • Biocentric or Ecocentric • Intuition and understanding • Postpatriarchal feminist values
Products	<ul style="list-style-type: none"> • Designed for function, style and price • Wasteful packaging 	<ul style="list-style-type: none"> • Designed for the environment • Environment friendly
Production system	<ul style="list-style-type: none"> • Energy and resource intensive • Technical efficiency 	<ul style="list-style-type: none"> • Low energy and resource use • Environmental efficiency
Organisation	<ul style="list-style-type: none"> • Hierarchical structure • Top down decision making • Centralised authority • High income differentials 	<ul style="list-style-type: none"> • Nonhierarchical structure • Participative decision making • Decentralised authority • Low income differentials
Environment	<ul style="list-style-type: none"> • Domination over nature • Environment managed as a resource • Pollution and waste are externalities 	<ul style="list-style-type: none"> • Harmony with nature • Resources regarded as strictly finite • Pollution/waste elimination and management
Business Functions	<ul style="list-style-type: none"> • Marketing aimed at increasing consumption • Finance aims at short term profit maximisation • Accounting focuses on conventional costs • Human resource management aims at increasing labour productivity 	<ul style="list-style-type: none"> • Marketing for consumer education • Finance aims at long term sustainable growth • Accounting focuses on environmental costs • Human resource management aims to make work meaningful and the workplace safe/healthy

A2.5 – Egri and Pinfield (1999)

Table A2.5 : Typology of Environmental Perspectives (1999:218)

	Dominant Social Paradigm	Reform Environmentalism	Radical Environmentalism
Human-nature relationship	<ul style="list-style-type: none"> • Domination over nature (very strong anthropocentrism) 	<ul style="list-style-type: none"> • Stewardship of nature (modified anthropocentrism) 	<ul style="list-style-type: none"> • Cooperation and harmony with nature (ecocentrism to biocentrism)
Approach to natural environment	<ul style="list-style-type: none"> • Doministic (mastery) • Utilitarian (material) • Negativistic (avoidance) 	<ul style="list-style-type: none"> • Naturalistic (conservation) • Utilitarian (modified) • Scientific 	<ul style="list-style-type: none"> • Moralistic (spiritual) • Aesthetic (preservation) • Symbolic • Humanistic (affection/emotion)
Nature of social order	<ul style="list-style-type: none"> • Hierarchical • Centralised authority • Competitive • Individualistic 	<ul style="list-style-type: none"> • Hierarchical • Centralised with stakeholder consultation • Competitive/collaborative • Individualism/Collectivist 	<ul style="list-style-type: none"> • Egalitarian • Decentralised participatory (minority tradition on bioregional basis) • Communalism • Collectivist
Assumptions			
Knowledge	<ul style="list-style-type: none"> • Reductionism • Rationality of means • Dualism 	Reductionism-systems Rational-political means/ends	<ul style="list-style-type: none"> • Holism • Rationality of ends • Integrative/dialectic
Economic	<ul style="list-style-type: none"> • Neoclassical economics (unlimited economic and material growth essential for human progress) 	<ul style="list-style-type: none"> • Ecological economics (neoclassical plus natural capital for optimal decision making) 	<ul style="list-style-type: none"> • Steady state economics (homeostasis)
Natural Resources	<ul style="list-style-type: none"> • Infinite natural resources (unlimited substitutes available) 	<ul style="list-style-type: none"> • Non-renewable and renewable natural resources (limits to substitutes) 	<ul style="list-style-type: none"> • Very limited natural resources (spaceship earth)
Scientific Technology	<ul style="list-style-type: none"> • Technological optimism 	<ul style="list-style-type: none"> • Technological optimism 	<ul style="list-style-type: none"> • Technological scepticism
Dominant Goals	<ul style="list-style-type: none"> • Unlimited economic and material growth essential for human progress • Scientific and technological progress 	<ul style="list-style-type: none"> • Sustainable development of natural environment • Economic and industrial development to reduce local/global societal inequalities 	<ul style="list-style-type: none"> • Holistic balance with a fragile nature (symbiosis) • Environmental and social justice
Environmental management Technologies and strategies	<ul style="list-style-type: none"> • Modern industrialism • Unrestricted consumerism • Pollution dispersion • Large scale capital intensive technologies 	<ul style="list-style-type: none"> • Green industrialism • Green consumerism • Pollution reduction • Eco-technologies to develop and conserve natural resources (technical and environmental efficiency) 	<ul style="list-style-type: none"> • Bioregional planning and control • Post consumption ethic • Pollution elimination • Intermediate (appropriate)

	Dominant Social Paradigm	Reform Environmentalism	Radical Environmentalism
	<ul style="list-style-type: none"> Unregulated free markets 	<ul style="list-style-type: none"> Utilitarian biodiversity Monitoring and regulation of environmental risks in local and global commons (calculate tradeoffs) 	<ul style="list-style-type: none"> technologies Cultural and biological diversity Government regulation for preservation/conservation of natural environment
Operating Metaphor	machine	Machine-systems	<ul style="list-style-type: none"> Organism

A2.6 – Gladwin, et al., (1995)

Table A2.6 : Alternative Environmental Paradigms (Gladwin, et al., 1995:883)

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Scientific & Technological			
1. Resilience of nature	Tough/robust	Varied/fragile	Highly vulnerable
2. Carrying capacity limits	No limits	Approaching	Already exceed
3. Population size	No problem	Stabilise soon	Freeze/reduce
4. Growth pattern	Exponential	Logistic	Hyperbolic
5. Severity of problems	Trivial	Consequential	Catastrophic
6. Urgency of solutions	Little/wait	Great/decades	Extraordinary/now
7. Risk orientation	Risk taking	Precaution	Risk aversion
8. Faith in technology	Optimism	Skepticism	Pessimism
9. Technological Pathways	Big/centralised	Benign/decoupled	Small/decentralised
10. Human vs Natural Capital	Full substitutes	Partial substitutes	Complements
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Postmaterialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

A2.7 – Purser, et al., (1995)

Purser, et al., (1995) do not outline the component of their three paradigms in a tabular format. Hence this table has been formulated from descriptors Purser et al; (1995) provide in their text.

Table A2.7 : Typology of Environmental Perspectives (1)

Anthropocentrism	Environmental Management	Ecocentric Responsibility Paradigm
<ul style="list-style-type: none"> • Linear perspective • Camera theory of knowledge (observer) • Human-nature dualism • Anthropocentrism results in egocentric organisations where competitive advantage is a defining characteristic • Technological optimism • Belief in continual economic growth • Environment only of exchange value 	<ul style="list-style-type: none"> • A policy of reform • Greening business • Technical fixes to environmental issues • Incorporates sustainable development thus allows continued growth • Ethical extensionism where intrinsic value of the non human world only occurs if entities measure up to criteria defined by humans • Technological optimism • Green consumerism results in message that material acquisition can continue unimpeded • Reinforces homo-economus and individualistic self interest 	<ul style="list-style-type: none"> • Preserve, protect restore ecosystems • Ecosystems have inherent worth • Intrinsic value not just instrumental value • Ecosystems produce value • Humans are decentred • Problems arise from distorted anthropocentric perceptions • Human beings and organisations are also members of ecosystems • Biophysical and ethical constraints that require a more ensemble understanding of autonomy

A2.8 – Devereaux Jennings and Zandbergen (1995)

Devereaux Jennings and Zandbergen (1995) do not outline the components of their paradigms in a tabular format. Hence this table has been formulated from descriptors Devereaux Jennings and Zandbergen (1995) provide in their text.

Table A2.8 : Typology of Environmental Perspectives (2)

Frontier Economics	Reformist Paradigms	Deep Ecology
<ul style="list-style-type: none"> • Global economic system is independent of the ecological system • Limitless markets to exploit and exhaust • Linear perspective 	<ul style="list-style-type: none"> • Sustainability must be the goal of organisations • Technical innovations • Organisational culture is key • Organisations should adopt eco-efficiency, product stewardship, life-cycle analysis, pollution prevention, environmental risk and liability management 	<ul style="list-style-type: none"> • Organisation act in an economic system that is inextricably intertwined with and dependent on the ecological system • All actions have ecological consequences • Ecosystems support economies • Organisational sustainability is a subset of a larger concept • Grass roots innovation • Bioregions • Accountability for all actors

A2.9 – Components of Key Studies on Environmental Paradigms

Table A2.9 : Components of Key Studies on Environmental Paradigms

Paper	Overview	Methodology/ Sample	Key Findings
Dunlap and Van Liere (2008) 'The New Environmental Paradigm' – Study actually conducted in 1976	<ul style="list-style-type: none"> Preliminary effort to determine the extent to which the public accepts the content of the New Environmental Paradigm 	<ul style="list-style-type: none"> Mail survey using open questions and a Likert type scale 806 households in Washington State 407 individuals of a state wide environmental organisations Public sample identified via the phone directory 	<ul style="list-style-type: none"> Majority endorsed new environmental paradigm No understanding of adherence to paradigm resulting in particular patterns of behaviour
Halme (1996) 'Shifting Environmental Management Paradigms in Two Finnish Paper Facilities: A Broader View of Institutional Theory'	<ul style="list-style-type: none"> Two case companies that were part of the same group, following one initiative in each company. The initiatives were, 1- demand for recycled cardboard and 2- biodiversity increases in forests. 	<ul style="list-style-type: none"> Semi-structured interviews and documentation review (annual reports, letters, etc) 39 individuals from the two case study companies 	<ul style="list-style-type: none"> Outline of how manager's paradigm's had changed between the 1980s to the present time of the study. Argued that the traditional paradigm of the organisations was similar to traditional management as offered by Colby, 1991 and the new management was similar to resource management (Colby, 1991). But no systemic analysis and created own paradigm scale based on product concept, view of competitive advantage, view of economy and nature and parties responsible Paradigmatic plurality in a firm is important in developing responses to issues Where a paradigm includes environmental considerations firms are quicker to respond to issues Traditional economic values are still key to firms
Andersson and Bateman (2000) 'Individual Environmental Initiative: Championing Natural Environmental Issues in US Business Organisations'	<ul style="list-style-type: none"> Development of five hypotheses tested using survey and interview data with individuals identified as environmental champions from industries such as manufacturing, utilities, retail, financial services, consumer services, health care, construction, transportation, 	<ul style="list-style-type: none"> Mail survey of individuals and a co worker of the individual (selected by the target responder) 132 survey responses from target individuals 52 survey responses from co-workers 22 semi-structured telephone interviews (a 	<ul style="list-style-type: none"> Hypotheses generally supported ie; (1) Champions conduct scanning behaviours, (2) no support for whether issue framed as opportunity or threat, but framing issue as urgent and or local did increase likelihood of success, (3)no support for the use of drama and emotion in discussing the issue, whereas there was support for the use of metaphor in presenting an environmental issue increased its likelihood of success,

Paper	Overview	Methodology/ Sample	Key Findings
	defence, oil and natural gas	subset of the 132 target individuals) to enhance understanding of survey data and provide anecdotal evidence of the activities and organisational factors <ul style="list-style-type: none"> • To understand the environmental paradigm they asked about whether environmental criteria were included in the performance appraisal process and the extent to which top managers would agree or not with statements such as more money needs to be spent on environmental protection, or whether more money spent in this area will impact profits. • Identified sample via directories 	(4)Rational persuasion did not support championing success, neither did consultation, but coalition building and inspirational appeal did, (5) when the environmental paradigm of an organisation was strong there was an increased likelihood of success of an initiative. <ul style="list-style-type: none"> • No discussion of adherence to particular paradigms as offered by management scholars
Egri and Herman (2000) 'Leadership in the North American Environmental Sector: Values, Leadership Styles, and Contexts of Environmental Leaders and their Organisations'	<ul style="list-style-type: none"> • Interview and questionnaire data obtained from 73 (38 for profit, 33 non profit inc 2 coleaders) leaders of nonprofit environmentalist and for profit environmental product and service organisations • Primary data collection being semi-structured interviews reviewed by content analysis • Questionnaires left with interviewees for them to return in post. One questionnaire used the NEP against a Likert scale of Dunlap and Van Liere to understand ecocentric adherence. 	<ul style="list-style-type: none"> • Used a typology of values to identify the nature and strength of adherence by individuals to their values • Hypotheses were constructed around openness to change, self transcendence, leaders of nonprofit organisations being relatively more ecocentric, transformational leadership vs transactional leadership, master managers, organisational orientation (adaption vs adaptation/efficiency), boundary spanning vs 	<ul style="list-style-type: none"> • Found that leaders they interviewed were strongly concerned with the welfare of others and the environment • Non profit leaders were more change and service orientated • Nonprofit and profit leaders were ecocentric relative to leaders from other non environmental sectors • For profit leaders were moderate ecocentrics in their views and tried to balance to a triple bottom line • Little differences between leaders regarding their personality traits and need for high achievement, power, affiliation • A mix of clan and bureaucratic governance, • Organisations have flat informal structures that facilitate empowerment • Mix of boundary spanning versus technical core dependent on organisation age, indicating these

Paper	Overview	Methodology/ Sample	Key Findings
		<p>technical core, have simple adhocracy or network organisational structures, clan or bureaucratic modes of governance, organisational receptivity for transformational leadership.</p> <ul style="list-style-type: none"> • No explanation of how they conducted their analysis to form conclusions • Sample identified via directories 	<p>organisations will become more formalised and institutionalised with time</p>
<p>Kilbourne, et al., (2002) 'The role of the dominant social paradigm in environmental attitudes: A multinational examination</p>	<ul style="list-style-type: none"> • Study of students from 'major' universities in seven countries (England, Austria, Netherlands, Denmark, Australia, Spain and USA) 	<ul style="list-style-type: none"> • Likert type questionnaires passed out during class periods • 742 completed questionnaires • Questionnaire had 4 sections but only 3 identified in study. Questions used a Likert scale (no disclosure of questionnaires) 	<ul style="list-style-type: none"> • Hypotheses generally supported, ie; (1) respondents with greater belief in technology, politics or economics of current DSP have less concern for the environment,(2) respondents who perceive an environmental threat are more willing to change their behaviour
<p>Brych, et al., (2007) 'Sustainable What? A Cognitive Approach to Understanding Sustainable Development</p>	<ul style="list-style-type: none"> • Explore the meaning of sustainable development held by New Zealand thought leaders and influencers who promote sustainability, business or sustainable business. Seeking to compare inductively derived worldviews with theories associated with sustainability and the humanity-nature relationship. 	<ul style="list-style-type: none"> • Cognitive mapping (eliciting concepts and then refining concepts and identifying relationships between concepts) via semi-structured interviews – participants asked to write concepts on cards important to his/her understanding of SD. These cards then grouped by interviewee and subject to qualitative analysis by researchers. • 21 thought leaders – Seven each from either an organisation publicly known for its role in supporting or promoting either business, or sustainable 	<ul style="list-style-type: none"> • Individuals from business domain supported economic growth and development as key to sustainable development • Those promoting sustainability supported limits to earth's resources • Those promoting sustainable business held a mix of the above two views and were reformist • Some discussion of mapping of worldviews to paradigms of Gladwin, et al., (1995). With the business group being technocentric, the sustainability group being ecocentric and sustainability and business group being a combination of both ie sustaincentrism (where there is movement from technocentrism towards ecocentrism)

Paper	Overview	Methodology/ Sample	Key Findings
		development or some combination of both. Note no actual business people themselves were involved	
Kilbourne and Carlson (2008) 'The Dominant Social Paradigm, Consumption, and Environmental Attitudes: Can Macromarketing Education Help?'	<ul style="list-style-type: none"> • Exploration of adherence to DSP and consumption behaviour in University classes on social responsibility 	<ul style="list-style-type: none"> • Two studies. The first study tested five hypotheses focused around the adherence to the DSP and environmental attitudes. • Questionnaires used to survey students. 15 questions had Likert type scale the others had questions exploring among other things semantics • Sample 1 students taking marketing or social responsibility over two semesters 87 marketing and 119 social responsibility students • The second study focused on social responsibility students, 97 completed questionnaires. And compared this group to the previous marketing group scores. The questionnaire had 49 questions, 30 with a Likert type scale, 15 semantic differential and 4 of demographic status 	<ul style="list-style-type: none"> • Lower scores on the DSP results in increased measures of environmental attitudes and perception of change necessary to ameliorate environmental degradation – however willingness to change one's own behaviour does not materialise. • Key finding is that the role and consequences of the DSP can be taught
Shafer (2006) 'Social Paradigms and Attitudes Toward Environmental Accountability'	<ul style="list-style-type: none"> • Exploration of MBA students at a USA college and their adherence to the DSP and their subsequent views on corporate environmental accountability 	<ul style="list-style-type: none"> • 302 (in class) MBA students at a private USA university with an average age of 34. Questionnaire administered that comprised a DSP and NEP scale that drew on Dunlap and used the Likert scale. 	<ul style="list-style-type: none"> • Overall results showed that attitudes towards the DSP and NEP play a significant role in the formation of attitudes towards environmental accountability

Appendix 3

Appendix to Support Chapter 3

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A3.1 – Burrell and Morgan (1979): Unitary and Pluralist Views

Table A3.1 : The Unitary and Pluralist Views of Interests, Conflict and Power
(Burrell & Morgan, 1979:204)

	The Unitary View	The Pluralist View
<i>Interests</i>	Places emphasis upon the achievement of common objectives. The organisation is viewed as being united under the umbrella of common goals, and striving towards their achievement in the manner of a well integrated team.	Places emphasis upon the diversity of individual and group interests. The organisation is regarded as a loose coalition which has but a remote interest in the formal goals of the organisation.
<i>Conflict</i>	Regards conflict as a rare and transient phenomenon which can be removed through appropriate managerial action. Where it does arise it is usually attributed to the activities of deviants and trouble makers.	Regards conflict as an inherent and ineradicable characteristic of organisational affairs and stresses its potentially positive or functional aspects.
<i>Power</i>	Largely ignores the role of power in organisational life. Concepts such as authority, leadership and control tend to be preferred means of describing the managerial prerogative of guiding the organisation towards the achievement of common interests.	Regards power as a variable crucial to the understanding of the activities of an organisation. Power is the medium through which conflicts of interest are alleviated and resolved. The organisation is viewed as a plurality of power holders drawing their power from a plurality of sources.

A3.2 – Detailed Semi-Structured Interview Guide

Table A3.2 : Semi-structured Interview Guide

Note

- The key research questions are numbered and have where appropriate support prompts beneath them.
- The non bulleted text is linking conversation
- The interviewees did not receive this guide or an annotated version prior to the interviews being conducted. Thus the interviewees did not have pre-interview, any specific knowledge of the questions being explored.
- Also as discussed in chapter 4, section 4.2, when conducting the interviews, the semi-structured interview guide was only used as an aid. In so much as the wording of the questions and their order on the guide was not meticulously adhered to, rather the wording and order of a question would be adjusted to reflect the context of the conversation at the time. For example in an interview, if appropriate, question wording would be altered by adding context and or de-formalising its delivery. Further question order would be altered if, given the conversation at a particular point, it was deemed appropriate to bring a question forward. Furthermore, not all of the questions on the guide were asked in the all of the interviews. This was because during the interviews, in response to one question or during the discussion more generally, the interviewee might also provide an answer a separate question as listed on the interview guide. Thus rather than risk appearing churlish, the interviewer did not ask every question, however although not every question was asked, invariably every question was answered.

Introduction	
Thanks & Confidentiality & Permissions	<p>Many thanks for being willing to take part in the research and allowing me to interview you.</p> <p><i>Can I assure you that the interview will remain completely anonymous and confidential as per the confidentiality agreement which we will run through now. (LINE TO BE TAILORED AS APPROPRIATE RE ETHICS COMMITTEE REQUIREMENTS)</i></p> <p>Can I have your permission to record the interview?</p> <p style="padding-left: 40px;"><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ This will allow me to ensure that in the coming months I can recall the content of the meeting accurately <p>Can I have your permission to make notes during the interview?</p>
	<p>Before we get going with the interview proper I just wanted to clarify your role and position as well as clarifying my position, the aim of the research and my proposed structure</p>

<p>Clarify Who They Are & Who I am & Research Aim</p> <p>Why Them</p> <p>Time & Structure</p>	<p>for our time together.</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ <I will reiterate their role and position as appropriate> ○ Nick Barter, teaching fellow, research student, University of St. Andrews. ○ Area of research in its broadest terms is sustainability and I aim to identify lessons from companies that are environmentally proactive. ○ SASI and St Andrews expansion as appropriate. <p>I approached your/this company because of its XYZ (to be completed as appropriate for each company that agrees to take part will lean on the company's vision/mission as appropriate) and hence because of this, I am hoping that you can help with my research aim of identifying lessons that enable businesses to operate in greater harmony with the environment.</p> <p>It is my understanding we have an hour (as appropriate) together, is that correct?</p> <p>With our time I wanted to begin by asking you some questions about how the company started, followed by further questions about how the company operates and relates to the environment and then after that basically tie up any loose ends from our conversation and close.</p> <p>Is there anything else you would like to cover?</p>
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Warm Up

<p>Indicator to primary research question/hypothesis (sustain/ecocentric) and lines of demarcation</p>	<ol style="list-style-type: none"> 1. Can you tell me the story of how the organisation came into being? <ul style="list-style-type: none"> <i>Support Prompts</i> ○ What drove you to do it? ○ Environmental concern? 2. How do you view the organisation's relationship with the environment? <ul style="list-style-type: none"> <i>Support Prompts</i> ○ Dominate ○ Stewardship ○ Integral part of, nested within <p>Moving forward and clarifying your answer</p> 3. Can you explain how the company's economic "life/function/impact/relationship" and environmental "life/function/impact/relationship" interact with each other?
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	<p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Overlap (how) ○ Separate (never overlap) ○ One and the same
Main Body	
<p>Indicator to research question/hypothesis regarding profit maximisation</p> <p>Indicator to research question/hypothesis regarding sufficiency and money as a means</p> <p>Indicator to research question/hypothesis regarding sufficiency and money as a means</p>	<p>4. So, what impact does this type of relationship between the company's economic and environmental "spheres" have on the business?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Strategy formulation ○ Planning horizon ○ Future generations ○ Measures of success (money primary) ○ Products that you make ○ Boundaries of responsibility for those products ○ Ecoeffectiveness <p>5. How has this relationship impacted the company and its requirement to make a profit?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Profit pursuit and tradeoffs with the environment (use profit environment 2X2) ○ Profit maximisation <p>6. How has this relationship impacted the company and its requirement for growth?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Continual growth ○ Appropriate size for company ○ Enough/Sufficiency – How? ○ Codification of sufficiency <p>7. Do you see any conflicts between continual growth and profit maximisation and maintaining a healthy environment?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Why? ○ Liquidation of natural capital and calling it income
	<p>Moving on from this to explore the company and its ownership and people structure.</p> <p>8. In what way has the view of how the company relates</p>

<p>Indicator to research question/hypothesis regarding quoted status</p> <p>Indicator to primary research question/hypothesis (sustain/ecocentric) and lines of demarcation</p>	<p>to the environment shown itself in the company's ownership structure?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Private ○ Form of Private ○ Become a PLC in future? ○ Conflict of PLC/profit maximisation/continual growth <p>9. How has this relationship with the environment shown itself in the organisational structure?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Lines of demarcation between company starts and ends – How do you manage? ○ Classic organisational structure ○ Classic roles and responsibilities ○ Lack of hierarchy - borne out in practice – decision making involvement
	<p>It could be argued that all companies are unsustainable.</p> <p>10. What would be your response to this statement?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Why? ○ Natural capital liquidation and income <p>11. What would you say in response to the statement with regards to this company?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Why? <p>12. Do you see a gap between where the company is now and how it might become sustainable?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Why? ○ Key gaps that you see ○ Plan and key components ○ Time (far away) ○ Key barriers to sustainability
<p>Cool Off</p>	
	<p>We are coming to a close now. So many thanks; I have a couple more questions.</p> <p>13. Is there anything about the company that we have not covered that enables it to work in harmony with the environment?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Key lessons to be shared

	<p>14. Would you say that the company puts the environment first and the economy second in how it operates or vice versa or neither?</p> <p><i>Support Prompts</i></p> <ul style="list-style-type: none"> ○ Why? ○ Impossible to do in today's economy <p>Lastly,</p> <p>15. Are there any other individuals within the company that you would recommend I talk to?</p> <p>16. Are there any other companies that you would recommend that I talk to?</p>
Closure	
	<p>Many thanks for your time</p> <p>Do you have any questions for me?</p> <p>If I have any further questions for you in the future would it be okay for me to contact you? And what would be the best way to make contact?</p> <p>Lastly, one of the things I would like to do if you agree is share the results of my research with you in the form of a précised report and if appropriate conduct a presentation with your team. Would that be something you would be interested in?</p>

A3.3 – Interviewee Briefing Sheet (Reproduction)

<p>Briefing Sheet</p> <p>This research project aims to understand how companies relate to the environment and the impact this has upon the modus operandi of companies.</p> <p>The research is focused on those companies that appear to have a strong environmental ethic running through their business. In particular the aim is to uncover if or if not and how, this strong environmental ethic translates itself into the companies' decisions, operations and structure. For example, how this ethic translates into the companies' organisational structure, measures of success, strategic direction and decision making, to name a few.</p> <p>As a participant your involvement will typically be an hour long discussion (although the exact timing is at your discretion) with the researcher, Nick Barter (contact details below).</p> <p>If you agree to take part in the research, please be aware that you are free to withdraw from the discussion at any time without the need to give any reason.</p>
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A3.4 – Interviewee Consent Sheet (Reproduction)

Consent Form

Form Purpose

Thank you for agreeing to take part in this research project. The purpose of this form is to ensure that you are willing to take part in this study and to allow you to understand what you are and are not consenting to.

Aim of Research

The aim of the research is to understand how businesses relate to the environment and the implications of this relationship upon their modus operandi.

Key Notes and Questions

With regards to the project please note that;

- Your participation is entirely voluntary
- You are free to refuse to answer any question
- You are free to withdraw at any time without having to give a reason for withdrawing
- The actual content of the interview will not remain confidential as extracts from it may be made part of the final research report.
- The data from this interview will be stored on a password enabled PC for any soft copy data and any paperwork will be stored in a lockable cabinet

- Have you read the participant information sheet? Yes/No
- Have you had the opportunity to ask questions about the study? Yes/No

- Do you agree that the interview maybe recorded? Yes/No
- Do you agree that the interviewer (Nick Barter) may take notes during the interview? Yes/No
- Would you like a transcript of the interview, once completed? Yes/No

With regards to the interview content and individual's names and role and the company name. The default position of the study is as follows;

- Your name will remain confidential and non identifiable, would you like this to remain the case or;
 - Do you agree for your name to be used in the study? Yes/No
- Your role within the company will not remain confidential and hence be identifiable, would you like this to remain the case or;
 - Do you want your role to remain confidential? Yes/No
- The company name will not remain confidential and hence be identifiable, would you like this to remain the case or;
 - Do you want the company name to remain confidential? Yes/No

Please sign the form below to indicate that you are aware of the above points and where appropriate have answered the questions.

Signing this form does not commit you to anything you do not wish to do.

On behalf of _____

(Signed)
(Printed)
(Date)
(Company Name)

- Would you like a report on the results of the project? Yes/No

Any questions or future correspondence should in the first instance be addressed to;

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A3.5 – Interviewee Debrief Sheet (Reproduction)

Debrief Sheet

Project Nature

This research project aims to understand how companies relate to the environment and the impact this has upon their daily operations.

The working title for the project is "Limits to the Best/Swimming Against the Tide". This title aims to capture what we discussed during our time together, whereby your decision making, organisational structure, measures of success and notions of company growth and profit growth were discussed. The essence being to see if lessons can be learnt from leading environmental organisations about how companies can operate in greater harmony with the environment.

The research is being conducted with a number of leading environmental companies and the interview content will form part of the researcher's PhD thesis. As discussed during the interview your consents regarding the exact usage of particular data types will be honoured.

If you would like a précised copy of the results when they are available, please do not hesitate to contact Nick Barter.

If you have any queries or concerns that you do not wish to raise with Nick Barter, please do not hesitate to contact the research supervisor, Professor Jan Bebbington (full contact details below).

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A3.6 – Four Areas of Consideration: Burrell and Morgan Metaphor, Rejection of Extremes, Right of Organisations, Investigating Paradigms

As mentioned in the end note of chapter three, there are four areas worthy of some consideration that sit outside the core narrative of that chapter. These four areas are (1) Burrell and Morgan's (1979) metaphor regarding society being hard and concrete, (2) the rejection of extremes regarding organisations facticity, (3) the right of organisations to exist and (4) the investigation of paradigms given their link to crises (Kuhn, 1996). Taking each of these areas in turn, the first concerns Burrell and Morgan's (1979) description that a theorist who has or takes a realist position regarding ontology, also takes a view that "the social world has an existence which is as hard and concrete as the natural world" (ibid:4). Within chapter three there is discussion of not equating this study's position on Burrell and Morgan's (1979) frameworks with that of the researcher, albeit Burrell and Morgan discuss the position of the researcher and the research as being broad equivalents. By extension there is a consideration to not simply accept Burrell and Morgan's (1979) metaphors. The difficulty with Burrell and Morgan's (1979) hard and concrete metaphor is that if accepted simplistically it denotes that the "social world" is set and rigid. Further it denotes that humans do not impact the social order of society rather they simply slot into existing structures. Many people may well equate their experience of the social order as one of slotting into existing structures. However, if Burrell and Morgan's (1979) metaphor is accepted too simplistically it would also negate Berger and Luckmann's (1967) work on the social construction of reality. Berger and Luckmann's (1967) classic text outlines that humans are at the centre of creating and reinforcing their social order and that for the social order to have any bearing upon the actions of individuals it must be continually worked upon and accepted by those same individuals. Thus the social order is praxis and there is only ordering not order (Newton, 2002); i.e. nothing is set, everything is in motion. Where the motion realises an illusion that appears as a constant order when what is occurring is continual reinforcement of an order; ie ordering. Thus the social world is not hard or concrete, rather, it appears that way; underneath the hard and concrete appearance is actually the praxis of humans, where that praxis is highly flexible and it can reinforce whatever order an individual desires.

Turning to the second point and rejecting extremes regarding organisations facticity. The point to be made here is one which Burrell and Morgan (1979) discuss briefly in their classic text, where they highlight the "ontological status of organisations is a question worthy of investigation" (Burrell & Morgan, 1979:398). In answering this question, Burrell and Morgan (1979) highlight that organisation theorists frequently treat the existence of organisations as being something that is self evident or taken for granted, with organisations being able to be investigated via nomothetic methods. However, Burrell and Morgan (1979) also highlight that an understanding of phenomenology and solipsism makes a highly objective viewpoint regarding organisations appear "equally absurd and extreme" (ibid: 398). Thus, Burrell and Morgan (1979) conclude that "the notion that one can measure an organisation as an empirical facticity is as extreme as the notion that organisations do not exist" (ibid: 398), "it is awareness of these extremes" (Burrell & Morgan, 1979:398) that is important. This study takes the same position as Burrell and Morgan (1979) regarding the awareness of extremes, while at the same time positing that organisations are something that individuals recognise themselves as belonging to.

The third point, the right of organisations to exist, given the discussion in the previous paragraph regarding the facticity of organisations, however existence is characterised, this study in having organisations as its research subject is in some manner condoning as well as reinforcing the right of organisations and in particular business organisations to exist. Further the condoning that is inherent in this research is being done willingly, especially given the definition of an organisation utilised for this study is one of recognising that an organisation is individuals working together to some agreed purpose and the organisation is in effect a tool utilised by the individuals that constitute it to realise some agreed vision of the future. Thus an organisation is a tool humans use to realise a futurity and it is unlikely and not desirable that humans stop coalescing themselves into organisations to realise an agreed objective. More pertinently behind any question which challenges the right of organisations to exist, it is safe to assume there is a normative concern regarding whether organisations should exist and in particular for this research study, should business organisations exist? Especially as business organisations are arguably responsible for much environmental degradation and a business organisation pursuing profit or more specifically excess cash is always likely to yield an externality (cost borne by society or the environment). As if no externality is realised and all dues are fully paid, then there can be no excess cash. Again, this research in having business organisations as its research subject is reinforcing the right of business organisations to exist and by implication it is supporting exchange between parties, where one member of the exchange realises a monetary surplus relative to their costs. However that this research supports business organisations and by implication commerce, does not mean that the researcher agrees and supports all of the current meta-narratives (Cummings, 2005) associated with commerce. Further as is seen from this study's purpose, the disclosure of results and the subsequent discussion, this research has within it an implicit critique of what many view as the current meta-narratives of commerce.

The fourth and final point, investigating paradigms given paradigms and paradigm change is commonly linked to crises events (Kuhn, 1996). To explain, Devereaux Jennings and Zandbergen (1995) state "the fundamental assumptions of existing paradigms must be challenged by crises before new paradigms can be adopted" (ibid:1039). Further Gladwin, et al., (1995) state; "as Kuhn noted, new paradigms tend to emerge from entirely new fundamentals and, at first, without a full set of concrete rules or standards" (ibid: 877). Thus simplistically it would appear from these quotes that detecting a paradigm that is away from that commonly held in society cannot be done as an existing paradigm must be removed or significantly challenged. While Devereaux Jennings and Zandbergen (1995) are clear that enough environmental crises have occurred for the development of a new paradigm, this is ultimately an assumption on their part. Thus it may not actually be the case across all of society that the dominant societal paradigm has been challenged enough for new paradigms to be detected. If this is the case, the primary research question of this study would appear to not be researchable. However, as Key (1999) indicates, Kuhn (1996) also suggested that;

"dominant paradigms continue to be successful as long as practitioners and scientists see them as solving problems or explaining observable phenomena. However, as events occur at increasing rates, which cannot be accommodated by the existing paradigm, rival paradigms arise which appear to resolve these paradoxes" (Key, 1999: 319)

The key term in the quote above is *arise* as it denotes an evolution, a view supported by Halme (1996). Whose results indicate, there can be enclaves where new paradigms exist, because organisational paradigm reframing “occurs through a dialectical process in which old and new paradigms interact, resulting in a synthesis, a new way of understanding” (Halme, 1996: 103) – ie new paradigms *arise* in *enclaves*. Halme (1996) supports the result by citing Giddens (1973). In sum, what the quotes and arguments put forward by Key (1999) and Halme (1996) highlight is that new paradigms can be found in enclaves, where those enclaves are perhaps surrounded by another paradigm that may be under challenge but not yet removed as a new set of fundamentals has not yet fully emerged. Thus the research question is researchable even though the existing paradigm has not yet been swept away. Furthermore given the study’s particular focus on environmental organisations it would appear likely that these organisations, as Shrivastava (1995a) suggests, will possess a different paradigm, as if the paradigm were not different, there would be no or little point of difference for the organisation relative to competitors.

A3.7 – Reflection Note: Is this Research Functionalist or Interpretive?

During the viva of this thesis there was extensive discussion with the examiners on whether this research is interpretative or functionalist relative to Burrell and Morgan's (1979) paradigm framework for the analysis of social theory. In retrospect this debate was to be expected as although chapter three of the thesis outlines that the research is functionalist, the remaining chapters of the thesis contain narrative that reinforces the inherent subjectivity of an individual and the acknowledgement of some ideographic leanings within the research method. Further the use of Actor-Network Theory (ANT) on the data reinforces a view that the research may not be functionalist, as ANT is typically associated with ethnography and thus ideographic methods and an interpretive paradigm. Another indication that a debate was likely to occur was offered at the start of chapter three where it is noted that although Burrell and Morgan (1979) make an argument that the research and the researcher cannot be separated with regard to their placement on the paradigm framework, for this researcher through the course of the study he had noted a movement in his views from realism and positivism towards a more nominalist and anti-positivist position. To elucidate the debate which occurred in the viva regarding the paradigm position of this research against the Burrell and Morgan (1979) framework, this reflection note will briefly reiterate the rationale for placing the research within the functionalist paradigm, outline the key arguments for why the research could be considered interpretive and conclude the debate with the researcher's view post the debate.

From chapter three, the rationale for placing the research within the functionalist paradigm was because the research treats the social world as if it is ontologically prior (a realist position) to the researcher's perception and the research is exploring a particular set of research questions and attempting to identify regularities or common themes (a positivist position). Furthermore although the research is more intermediate between deterministic and voluntaristic with regard to human nature, the systematic protocol of semi-structured interviews makes the research nomothetical. Consequently given the positions of realism, positivism, deterministic/voluntaristic and nomothetic, and that the research is focused upon questions of what is (sociology of regulation), it was deduced that the research sits within the functionalist paradigm of the Burrell and Morgan (1979) framework. Building upon these arguments the functionalist positioning was reinforced by the outlining in chapter three that the research questions have organisations as their subject and the research assumes that organisations are entities that exist and can be identified, an aspect that would be questioned within an interpretive paradigm.

Although the points above make a claim for the research being functionalist, as mentioned, there was a debate in the viva as to whether the research is interpretive. The seeds of the debate as to why the research might be interpretative as opposed to functionalist are littered throughout the thesis, for example, throughout chapter four there is extensive commentary regarding; the not taking of notes after the interviews because of a concern of the researcher about the relative subjectivity/objectivity of these notes, the deficiencies of the human as an analyst (Robson, 2002), the constraints of language (Deleuze & Guattari, 2007), how data is co-created between the interviewer and the interviewee, and how any qualitative research represents a "perspective rather than any form of absolute truth" (O'Dwyer,

2004:404). Furthermore at the end of chapter four the inherent subjectivity of the individual is encapsulated by a quote from Bateson (2002) that highlights how individuals are trapped by their unique subjectivity;

“When somebody steps on my toe, what I experience is, not his stepping on my toe, but my image of his stepping on my toe reconstructed from neural reports reaching my brain somewhat after his foot has landed on mine. Experience of the exterior is always mediated by particular sense organs and neural pathways. To that extent, objects are my creation, and my experience of them is subjective, not objective”
(Bateson, 2002:28)

The inherent subjectivity of the individual and an attempt to manoeuvre around this is briefly discussed in chapter eight where ANT is outlined as the theoretical lens through which to analyse the data. One aspect of the rationale for choosing ANT is that it is a theory that avoids a subjectivity and objectivity split and attempts to “go with the flow” (Latour, 2005:237). Hence ANT bypasses any subjective-objective dimension and, as noted in chapter eight, aligns itself with arguments offered by; (1) Tinker, et al., (1982) that “the subject-object split is a false assumption: observers (subjects) are a product of the reality (objects) they observe (and so therefore are their models of observation and perception)” (ibid:173); (2) arguments put forward by Gibson (1986) regarding the ecological approach to vision and the concept of affordances and (3) arguments put forward by McEvoy and Zarate (2007) regarding how the properties of light observed by the experimenter depend upon what the experimenter intends to observe – light performing as a wave or a photon (particle).

Outside of the bypassing of the subject-object debate that is being conducted via the use of ANT, the discussion regarding the inherent subjectivity of an individual should also indicate to the reader that through the course of the study the researcher has not only developed his ontological understanding, but he has also brought forward the fruits of this understanding and its challenge and conflict toward functionalism. Furthermore in bringing forward this understanding and challenge the researcher is highlighting to the reader the limitations of any truth claims in the research and that the research’s findings represent a perspective as opposed to an absolute truth. This divulgence of the researcher’s and the research’s limitations when coupled to the explanations of how the interviews were akin to a conversation and that the semi-structured interview guide was not strictly adhered to (albeit every question was answered by an interviewee although not every question was asked), can indicate to the reader that although in its conception this study may have been functionalist, in its actualisation and via the discussions the research is pulled towards an interpretive paradigm. A pull reinforced by the understanding that ANT is typically used in ethnographic studies and Burrell and Morgan (1979) outline that ethnography is an ideographic method that falls within an interpretive paradigm. Although offering this transparency regarding the limitations of the study’s findings is perhaps laudable, the offering is not without conflict. In particular, the researcher would ideally like to be removed from the research and thus enable the findings to stand alone and represent an absolute truth as opposed to a perspective, particularly as this would to the researchers mind, provide the findings with enhanced inarguability in a manner similar to that which readers typically ascribe to numbers (Cummings, 2005). However, the researcher’s ontological position does not allow this separation and thus a conflict arises, a conflict that shows itself through, for example, the use of a quote from Bateson (2002) and the use of a theory such as ANT which bypasses the subject-object debate. That the conflict exists is perhaps to be expected of management scholars researching environmental paradigms, because

as Meima (1996) highlights the scholars who have informed this research, scholars such as: Devereaux Jennings and Zandbergen (1995), Gladwin, et al., (1995), Purser, et al., (1995) and Shrivastava (1995a) typically oscillate "between objectivism and subjectivism, and they end up mainly leaning toward the epistemology of the soft human factor in a hard world" (Meima, 1996: 916).

In conclusion, the debate prompted by the Burrell and Morgan (1979) framework of whether this research is functionalist or interpretive has enabled this researcher to develop, explore and better understand his ontology, epistemology, view of human nature and methodology. Also, with reference to Meima (1996) and oscillation, the debate is not to be unexpected and perhaps likely to never stop if this researcher continues to use the Burrell and Morgan (1979) framework. Thankfully Burrell and Morgan (1979) outline that their framework is a "heuristic device rather than a rigid set of definitions" (ibid:xii). Hence, that the framework has enabled debate and provided an additional stimulus for this researcher to clarify his views indicates that the framework has probably served its purpose. Given the discussion above it could be argued that the research is interpretive with functionalist leanings or vice versa, in short against the framework this research oscillates and thankfully the Burrell and Morgan's (1979) heuristic provides room for this oscillation. To close, the Burrell and Morgan (1979) framework has served a purpose, however having now learnt some hard lessons, in the future it may be appropriate to leave the framework to one side.

Appendix 4

Appendix to Support Chapter 4

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A4.1 – Long List of 69 Organisations

Table A4.1 : The Long List of 69 Organisations to potentially approach for the Study

1. Worn Again	2. Ecos Organic Paints	3. Belu
4. People Tree	5. Ecohometec	6. Pillars of Hercules
7. Beyond Skin	8. Enamore	9. By Nature
10. Faith in Nature	11. Triodos Bank	12. Natural Collection
13. TerraCycle	14. Green Fibres	15. Church and Dwight
16. Abel and Cole	17. Green Building Store	18. Ecology Building Society
19. Green Stationery Company	20. DIY Kyoto	21. Yaoh
22. Shared Interest	23. Adili	24. Green Baby
25. biomelifestyle	26. Doves Farm	27. Real Goods
28. Gaiam	29. Ecover	30. BioRegional
31. Seasalt	32. SUMA	33. Tom's of Maine
34. Good Energy	35. Fairdeal Trading	36. Scott Bader
37. Ben and Jerrys	38. Green People	39. Whole Earth
40. seventh GENERATION	41. GoinGreen	42. Green and Blacks
43. Bio D	44. Ecotopia	45. Phoenix Organics
46. Patagonia	47. Smile Plastics	48. Ecocentric
49. revolve	50. European Recycling Company	51. Greenshop
52. Sonnett	53. Ecotricity	54. Recycline
55. Seahorse Power	56. Teko	57. Zoots
58. GreenOrder	59. Teragren	60. Terra Plana
61. Worrell Water Technologies	62. Interface	63. Cafe Direct
64. Woodplaw	65. howies	66. Beacon Press
67. Hemp Trading Company	68. Solar Century	69. Zopa

A4.2 – 31 Organisations Approached

Table A4.2 : High Levels Notes on the 31 Organisations Approached for Inclusion in the Study

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
1. Worn Again	Makes shoes and bags from recycled blankets, uniforms etc. Claims shoes are 99% recycled and 100% recyclable – People who want good looking feet without a guilty conscience	London	Diverse production models, that source materials regionally, reduce emissions, produce in factories with above average working conditions and influence the expansion of Fair Trade and co-operative production. We aim to use our business as a platform for improving social, economic and environmental conditions in regions where we operate while building a profitable business	Company born out of terra plana and anti apathy. Anti-Apathy have always looked for new ways of working that could improve labour standards, help deal with climate change and address issues of global trade and sustainability - Worn Again is a way of doing this. Work with Climate Care to offset, they transport by land and sea, visible cost breakdown and flow of goods (ingredients). Terraplana and Antiapathy have a board that sits across the company re meeting its ethical policy	Mission statement left puts profits last, and their vision discusses regional sourcing and alike - hence an indicative sustainocentric nature	Damien Peat	Started in 2005
2. Belu	Bottled water company that claims not to contribute to climate change, use a compostable bottle (made from corn) and donates all	London	Due to 2/3 water on planet no longer being clean and 1/3 of population not having access to clean water, Belu was launched to help	All profits go to clean water projects and their cost base meets international ratios with the help of KPMG as auditors.	That all profits go to water projects (social cause) and likely to be able to provide indication re	Reed Paget	Source water from Shropshire and the Black Mountains

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
	profits to clean water initiatives - every bottle you drink gives someone clean water for a month		clean things up		profit maximisation		
3. Pillars of Hercules	Organic farm, shop and cafe started in 1983 now has six hectares under its control	Fife			Maybe easy to see, ecocentric world view given farm	Bruce Bennett	
4. Beyond Skin	Beyond Skin is an exclusive ethical footwear label producing beautiful, stylish hand-made shoes. All our footwear is hand-made in England and produced in a manner that is non-exploitative to humans, animals and wherever possible the wider environment. All shoes are handmade to order. From fast facts would rather grow food than cattle (sustainocentric)	Brighton	The brand's overall objective is to <ul style="list-style-type: none"> • Be the leading producer of fashionable, affordable and ethical footwear – and with an identifiable ethical message to both businesses and consumers world-wide. • Support a sustainable lifestyle rather than the throwaway culture that is an inherent part of our modern day lives. 	Shoes are made with fibres and cotton, the packaging is sustainable, etc % of profits go to charities nominated by the company's customers	Getting away from throwaway culture in website blurb, - sufficiency and sustaincentric	Natalie Dean	Founder is a vegan. But the strength of feeling comes through and it would be useful to see how the passion makes it onto the page of the business Doesn't use animals or plastics in its designs. Fast facts contain information about the world's poor and also how wasteful it is to farm cattle when we could grow food.

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
							Company started in 2001
5. By Nature	An online shop	London	By Nature is dedicated to help consumers make the right choices for a more sustainable world.	The newsletter is full of top tips about ethical living	Vision statement identifies a sustainable world – ecocentrism?	Annabelle Randles	Started in 2005
6. Faith in Nature	Natural skin care products and cosmetics that does not use animal by products	North West	The mission of the company is to affirm beliefs and identify new and better ways of serving our customers, namely You. Part of our mission at Faith in Nature is to be distinctive in products and policies that honour and sustain our natural world. That is why we focus on using natural and biodegradable ingredients, recycling is used wherever possible and sustainable materials are used wherever practical.	Audited by groundwork re their waste material usage, have strong support re people that get skin conditions,	Honouring the earth in their mission statement – ecocentrism?	Rona Rose	Been operating for over 30 years
7. Triodos Bank	A bank formed in 1968 in the Netherlands.	Bristol and Edinburgh	Triodos Bank finances companies, institutions and projects that add cultural value and benefit people and the environment, with the support of depositors and investors who want	Publicly listed company, made about 5m EUROS in 2005. Lends money to organic shops (urban angel) and wind farms, organic farms and social enterprises - cycles maximus and a bike co-op, amongst	Well established and could provide insight re their lending policies to the views of money and whether it's a means or an end	Charles Middleton	Has a charitable foundation

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
			to encourage corporate social responsibility and a sustainable society. Our mission is; To help create a society that promotes people's quality of life and that has human dignity at its core. To enable individuals, institutions and businesses to use money more consciously in ways that benefit people and the environment, and promote sustainable development. To offer our customers sustainable financial products and high quality service.	others. Also help provide finance for banks in Africa and a VC fund in the UK. They financed cafe direct's share offering.			
8. Natural Collection	An ethical/green retailer	Sunderland	Formed in 1999 with a vision to create a distribution platform to support sustainable innovation and ideas, products which use modern technology to harness nature's benefits without exploiting her resources We believe that environmental awareness does not have to mean the	Have formulated their own colour coded scheme with eco, organics, fair trade, natural living, and well being. They talk about sustainable consumption and that products shipped from asia or the US have to be 10% better environmentally.	Could illuminate all questions, in particular ecocentrism, etc	Joanne and Julian Spector	Donated £300k to Friends of the Earth, won sustainable retailer of the year (Observer) in 2006.

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
			deprivation of the benefits our modern society has grown to enjoy, but rather adds a new and exciting dimension to the definition of leading edge technology, innovative design and a vision for a new and braver world				
9. TerraCycle	Founded in 2002, vermicomposting (worm poop), plant food sold in old soda bottles with the idea that by taking waste etc and making great compost then you do great things for the triple bottom line	USA	Not clear but extensive discussion of the triple bottom line	Take recycled soda bottles for packaging and also donate 5c for each bottle collected, have abig thing on their website about the triple bottom line and eco-capitalism, founded in 2002	Extensive discussion of ecocapitalism – views on money and profit maximisation	CEO- Tom Szaky and co founder Jon Beyer	Voted one of 100 most innovative companies on Red Herring and got their break via their first product being listed by home depot.
10. People Tree	Eco and fair trade fashion house	London	People Tree is a pioneering Fair Trade and ecological fashion company, making beautiful clothing and accessories for women, men, children and babies. People Tree products are made to the highest Fair Trade and environmental standards from start to finish and consistently prove	Lot about promoting fair-trade and working with 20 countries and a good bit about doing their best to protect the environment and not use nasty chemicals, etc. Has operations in Britain and Japan and is affiliated to a Japanese NGO called Global Village	Mission statement indicates re ecocentrism and clear lines of demarcation	Safia Minney	Has concession in Top Shop and has appeared in Vogue

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
			that it is possible to wear stylish, exciting and affordable fashion, at the same time as respecting people and planet.				
11. Ecology Building Society	Mutual building society dedicated to improving the environment by building sustainable societies	West Yorkshire	Mutual building society dedicated to improving the environment by building sustainable societies, have lending criteria that are about good use of materials and insulation, etc - Have a strong environmental policy	10k account holders, £60m in assets, started in 1981, makes about £300k in profit,	Mission statement strength – can cast light on all questions	Paul Ellis, CEO	HQ is built of straw bales and has solar panels. Organisation has a future generations trust
12. Biomelifestyle	Unite eco and style in the home - an eco habitat	London	We aim to take a step in the right direction by offering homewares produced with a minimum social and environmental footprint. We also realise that we have many, many more steps to take	Have an eco credential web page that highlights how they look for products to be energy efficient, locally produced, organic, sustainable (mainly FSC/bamboo), fairly traded (cooperatively produced), recycled, recyclable - the products they list only have to meet one of their criteria.	Sufficiency and quoted status given they help to form a co-op supplier	Alexandra Bramham	Supports Nyumba Ya Thanzi a Malawi design company
13. Ecover	Range of cleaning products for the home and some industrial	Berkshire/Belgium	Ecover strives to provide effective, sustainable solutions for the hygienic needs of people - Ecover is a company that strives to optimise economic value. We regard the	Has waste prevention, transport of personnel policies etc	Strong brand name in sector, ecocentrism re economy being part of environment as per their mission statement	Jorgen Philip Sorenson	Founded in 1980

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
			<p>environment as an inseparable part of the economy. Negative impacts on the environment are reduced by means such as stimulating and conducting research on new technologies and raw materials. In the social area, Ecover regards job performance as a means to foster the social wellbeing and personal development of its direct and indirect employees.</p>				
14. BioRegional	An entrepreneurial organisation that is about all sorts of things and working in harmony with the planet, includes consulting, products and services and an eco village	London	Approach is based on closing the loop, local resource availability, appropriate scale technology, network production, fair trade and developing environmental projects	Registered as a charity for public education purposes, but has some companies formed such as bioregional charcoal and bioregional minimills, hence there is a group that overarches a number of organisations, BioRegional Charcoal, Bio Regional Minimills (paper), BioRegional Forestry, Bio Regional Reclaimed (construction materials), Bio Regional Consulting and Bio Regional Quintain (property	Strength of mission and breadth of operations	Poornan Desai and Sue Riddlestone	Since 1994.

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
				development)			
15. SUMA	Branded and wholesaler of organic/vegetarian products	Elland	We are genuinely committed to reducing our impact on the environment and improving our customer service - Core principles - ethics, environment, fair trade and cooperative working	Workers co-operative, lots about being vegetarian and free range eggs, etc Their ethics are strong and their environmental policy is about reducing and renewable energy etc	Strength of mission and ownership structure as a co-op	Reg Taylor	Employs 150 people, started in 1975
16. Tom's of Maine	A publicly traded consumer goods company that sold out to Colgate - founders Tom and Kate retain a minority ownership	USA	Mission is long but includes comments about honouring and sustaining the natural world and being a profitable company while acting in a socially and environmentally responsible manner	A long list of beliefs about the environment and co workers etc that give rise to the mission. Have a stewardship model about how they work with the environment and then a list of seven principles for their management system based upon the founders principles	Can provide insight into the systematisation and also tensions re now being quoted	Tom O'Brien - COO	
17. Good Energy	100% Renewable electricity supplier, established in 1999, totally focused on renewable energy	Chippenham	Help people reduce their environmental footprint	Strong environmental bent in marketing - useful to see how they approach their market internally and live their dream - also their use of borrowing from children not inheriting from parents phraseology	Strength of mission/vision - impacting all research questions	Juliet Davenport	
18. seventh GENERATION	Provide non toxic household care products only available in USA via natural stores	Vermont, USA	An earth restored, leading positive change, etc	Website contains all sorts of information about auditing your cleaning products to how petro chemicals will be used up and how the precautionary	Primacy of seventh generation ethic in company and their values and principles	Jeffrey Hollender	

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
				principle runs opposite to the USA's normal approach to pollution regulation - Won 15 major awards about protecting the environment			
19. Green and Blacks	Fairtrade and organic chocolate started in 1991 - owned by Cadbury as a standalone business with Craig Sams still being the chairman	London	Doing business differently, selling premium chocolate etc	This way of doing business didn't seem different to them - it was what came naturally - and in the process, the Maya Gold brand earned them the UK's first Fairtrade mark	Product reach, ownership structure impact re being quoted	Dominic Low	
20. Bio D	Environmentally responsible ethically sound household cleaners	Hull	We believe it is possible to have effective natural and safe cleaning products that don't cost the earth	UK's Foremost manufacturer of environmentally responsible, ethically sound cleaners	Strength of message - impacting all research questions	Mike Barwell	Independent family owned company, cutoff date of 1988 on products being dodgy Strong focus on environment
21. revolve	Sell products made from recycled waste	Huddersfield	Believe they can make environmental difference, to how people buy gifts and giftware, Basically, we want to create products that are visually interesting, have a story to tell and spread the recycling message.	Make table mats, stationary, picture frames from printed circuit boards, etc	Honest in approach and messages indicates they will have interesting perspectives	Graham Randles	Very small company
22. Ecotricity	Invests in and sells renewable energy -	Stroud	We're dedicated to changing the way	Recommended by numerous partners as	Environment first quote -	Dale Vince	

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
	strong B2B bias		electricity is made Climate change – environmentalists doing business	supplier of choice	particularly interesting		
23. Recycline	Toothbrushes and tableware made from recycled plastic – partnership with Stonyfields farms	USA	As a company, we strive to combine socially and environmentally responsible business practices with groundbreaking design to create products that people feel good about having in their homes	Sell products with a mail bag so product can be returned for recycling	Strong on the 3Rs – impact all research questions	Eric Hudson	
24. Teko	Teko, a leader in the Outdoor Industry, continues to balance land, people, and animals with the introduction of Ingeo™, Corn-Based socks! Not only are these socks made from a naturally renewable resource, but they also have an incredibly soft feel!	USA	To create the best performing socks in the world, with the least impact on our planet. We searched around the globe to make sure that Teko socks provide the best performance out there, carefully choosing only the most advanced design features, the finest yarns, and the least toxic dyes to create superb quality, with the minimal ecological footprint.	Have a nice piece about minimising wastage in their production process and some of their socks are called ecomerino, etc	Likely to be RMI influenced, but their talk about wastage and resource use is up front – hence primary research question	Jim Heiden	
25. Terra Plana	Most innovative and sustainable designer shoe brand in the world	London	Our goal is to create sustainable products and be a sustainable company in all dimensions, people, process, product, place and profits by the end of 2010		Strength of mission	Galahad Clark	

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
26. Worrell Water Technologies	Make living machine sewage treatment	USA	Not clear	Extensive discussion about the passion for the environment driving everything they do and how the product helps re educating sustainability	Product strength creates a rationale for approach	Robert Billingsley	
27. howies	Clothing company	South Wales	Why are we in business? For us it is not as simple to make a profit. Like any company we require a profit to stay in business. But it is not the reason we are in business. The thing that has not changed from day one is the desire to make people think about the world we live in. This is, and always will be, why we are in business. and the rocking chair test	Aiming to be lower impact, they remember the summer of 76 well, don't answer to the city they answer to their friends	Not being answerable to the city and not about making money – clear indications re research questions on money and quoted status	David Hieatt	
28. Solar Century	A solar panel company	London	Create a more sustainable world and revolutionise the energy market	Say they balance profit with environmental demands, also mention challenging the status quo and walking the talk	Strength of words versus profit demands of investors	Jeremy Lugett	
29. Green Stationery Company	The Green Stationery Company is the UK's premier recycled paper and green office products supplier. We select products that are environmentally	Bath	We aim to maintain business practices consistent with the goals of sustaining our fragile environment for future generations, within a culture that	We are a mine of information on all products from recycled paper to cleaning supplies, please contact us if you have a question and we will be happy	Strength of words – indicates could provide insight on all questions	Jay Risebridger	

Name	Descriptor	Location	Vision/Mission	Additional Information	Rationale for Including	CEO/Chairperson	Other
	benign or have environmental advantages over the standard office products.		respects life and honours its interdependence.	to help			
30. Green Building Store	Supplies and consults on green buildings	Huddersfield	Committed to promote energy efficient, sustainable and healthy buildings	Environmental policy includes bike riding	Strength of commentary on website	Chris Herring/Bill Butcher	
31. Woodplaw	Makes furniture from hardwood in Scotland	Scotland	Committed to reforestation, not importing hardwood, training carpenters, etc	Owns/runs woodland trust	Strength of general commentary and direct contact with environment etc	Eoin Cox	

A4.3 – Data Interpretation 0

This section of the appendix outlines the initial findings from conducting an audio review and mind mapping the interviews. After reviewing the interviews an initial findings report was produced. At the core of this initial report were the headline themes from each interview that are displayed below (section A4.3.1) along with a discussion that expanded their interpretation across the sample. However this expanded interpretation is not shown in this appendix, as it was subsumed by the analysis and interpretation that resulted in data interpretation 1.

A4.3.1 – Data Interpretation 0: Interview Headlines

<p>1 - Pillars of Hercules</p>	<ul style="list-style-type: none"> • Led by principles, not what sells but from that point we have to make money, society is now catching up with us with regards to our principles • Treat the planet with respect, need to fit into the system rather than what we can take out of it • Don't push everything to the limit – about being comfortable, employing sufficiency • Economic/financial concerns prevent us doing more • Pushing environmental limits to become greener works for us in the context of our customer base
<p>2 - TerraCycle</p>	<ul style="list-style-type: none"> • Found profitable niche where there doesn't have to be a trade off between profit and the environment • Because of customer base we have to push ourselves environmentally • Our packaging was a key push to brand and operationalise ourselves as an environmentally strong company • We are in the business of getting the public to think differently about products and replacing the non environmentally friendly version
<p>3 - biome lifestyle</p>	<ul style="list-style-type: none"> • Desired transparency regarding where products were coming from and don't see why anyone should have to compromise their ethics • Company is about making small changes, we all have a responsibility to the planet • Because the tools are not available we make tradeoffs by our gut/principles • Spend time educating customers as well as selling • Lack of resource prevents us doing more
<p>4 – Company A</p>	<ul style="list-style-type: none"> • Brand is self reinforcing with regards to our customers, hence we have to push forward • Have commercial and ethical alignment but we want to get ahead, commercial constraints prevent us doing more • With our backs to the wall it's the economy first we have to survive • We have a responsibility to our supply chain • Standard view on timeframes, no intergenerational view
<p>5 – Beyond Skin</p>	<ul style="list-style-type: none"> • Personal ethos drove the setting up of the company, how there are sensible choices to being a vegan • Now moved on from this to pursue sustainability • Need to push agenda and others will follow which is the whole point • Sourcing prevents us doing more
<p>6 – howies</p>	<ul style="list-style-type: none"> • Not normal to be a polluter, what we are doing should be normal • Experiment to improve the company, a continual journey that in 10 years time we will be closer to answering • Long term view taken as we believe our principles everyday and in 10 years time • Have to work with not just take from the planet • If we believe in what we are doing then its right that we grow • Our beliefs drive us not financials, when we follow our beliefs we do better • Hope the company always beats itself up in an effort to improve

<p>7 - Company B</p>	<ul style="list-style-type: none"> • Business with a purpose of creating change to move us to more sustainable living • Money is a means to allow us to create more change • Our forecasts are more like weather forecasts rather than targets • If in the future we are irrelevant that is a measure of success • Bottom line is not what matters nor is the timeframe, change matters • A company with a benign dictatorship gets things done relative to a charity or a co-op • We are environmentalists doing business not the other way round
<p>8 - Green Stationary Company</p>	<ul style="list-style-type: none"> • Business is about creating change and moving peoples thinking • Our growth creates more change and potentially encourages other companies to change • Because we have to make money we have to make compromises to stay economically viable • Us making money allows us to continue to create change
<p>9 - Recycline</p>	<ul style="list-style-type: none"> • Change our scope to create more change as we have more or less influence • Short term time pressures would be a concern if we went public • We recognise our place in the system and understanding all the costs (environmental plus) of our business allows us to do this • Have to be competitive in order to survive • Our growth enables us to do more • Desire to explore further the end of life of our products
<p>10 – revolve</p>	<ul style="list-style-type: none"> • Money is a means to allow us to do more • Waste not, want not was a principle that informed the setting up of the company • Don't believe we can change the world but we can do our part • Staying small allows us to stay in control and move forward – if we get too big we might become a price taker • Not conventional as we don't value everything in terms of money • Want to create more local economies of production and consumption
<p>11 – Green Building Store</p>	<ul style="list-style-type: none"> • Company allows us to action our beliefs • Continually push the green agenda to meet the requirements of our customers and maintain our competitive space • Our benign dictatorship gets things done • Lot of love in the organisation and although the word may not be used it guides our management style • Growth and more money enables us to do more but not on this earth for money
<p>12 – Terra Plana</p>	<ul style="list-style-type: none"> • Our growth spreads the message and creates change • Being financially sustainable allows us to create more change • Don't want to stay a niche want to spread beyond this • Because of market and the price points we have to make compromises

<p>13 – seventh GENERATION</p>	<ul style="list-style-type: none"> • Pushing the environmental edge to ensure our competitiveness • Trying to move beyond conventional frameworks and find a new modus operandi • Exploring earth to earth solutions • Trying to avoid linear 'old' thinking • Our growth changes helps to change culture • Went public and bought ourselves back to ensure control and direction
<p>14 – By Nature</p>	<ul style="list-style-type: none"> • Want to change peoples' choices not necessarily their habits, towards a more environmentally benign choice • Growth allows us to create more change • Money is a means to ensure our financial sustainability • We always want to push the environmental envelope and do more
<p>15 – Ecover</p>	<ul style="list-style-type: none"> • Economic viability is necessary, want to do more but have to make money • Company is an organism hence its right that it grows • More market share allows us to create more change • Hope is to create deep change with the customer • Hierarchies are a block on development of the company, they do not enable solid exchange • Continually pushing the agenda forward and 'looking over the hedge'
<p>16 – belu</p>	<ul style="list-style-type: none"> • Using tools of business to solve environmental and social problems • Changing choices not habits, we are a better choice compared to the industry standard • Our growth means we cannibalise the convention that is good • Need to harness self interest to create change on the planet and let the market reward good behaviour • Money is a means to allow us to create more change • Use our judgement to create tradeoffs
<p>17 – Company C</p>	<ul style="list-style-type: none"> • Business is about fulfilling ideas and letting people know that these products are available • Integrity of what we do is key, but there is no use being pure and insignificant, hence sometimes compromises are made • If we are not serving mother nature we are not serving ourselves • Real barrier is making the organisation move
<p>18 – Company D</p>	<ul style="list-style-type: none"> • Our business comes from within the issue and is a vehicle for action • Want a conversation with our customers beyond the standard • Take a long term view as far as the model allows • Company is an organism and in its growth we want to avoid mechanisation • Affection runs through the organisation • Our size enables us to do things that a larger organisation may not be able to do – for example we can be fleet of foot

<p>19 – People Tree</p>	<ul style="list-style-type: none"> • Have to be economically sustainable over the long term • Our customer base demands more from us, hence we have to push forward the boundaries, our customer is committed • We all have something in common regarding our belief in the purpose of the company to create better social and environmental outcomes
<p>20 – BioRegional</p>	<ul style="list-style-type: none"> • We are all about reducing impact and creating sustainable living • Low levels of hierarchy exist in the organisation • We have a love/happiness survey
<p>21 – Triodos Bank</p>	<ul style="list-style-type: none"> • This is a consciousness changing vehicle • Our ethos drives a lot of what we do • Growth allows us to create more change and make a positive difference • Love and pragmatism runs through our organisation
<p>22 – Suma</p>	<ul style="list-style-type: none"> • Try to act correctly in all we do • We make changes where we can absorb the cost • Has to be economically viable that is how our ethics are funded • We are evangelical in what we believe • We want a bigger relationship with our customers than just a cash exchange • The company is almost a sentient thing • Growth creates more change, but we ask ourselves what kind of growth
<p>23 – Company E</p>	<ul style="list-style-type: none"> • We are umbilically attached to the environment, if we work the land, we have to repay the land • Love enters into what we do, it has to sit with our soul • Our investment is more than money it is sweat, goodwill, etc • The environment dictates how much we do • Have to make money to ensure our continued operation

A4.4 – Reflection Note: How is what is known from this research known?

During the viva of this thesis there was some discussion about whether the findings of the research resulted in the research questions being 'supported' or whether the interviewees answered the research questions in a manner that is consistent with what may be expected given the literature base that contextualises this study. Through this discussion in the viva, it was agreed that the research questions were not as such 'supported' by the interviewees, rather the interviewees provided answers that were consistent with the normative underpinnings of the literature contextualising this thesis and research. However an important point to note is, as highlighted elsewhere in the thesis, there were no expectations regarding the commentary that may arise from the interviewees.

In chapter four the process of analysis on the data is outlined. The process involved four sub-processes of data reduction and interpretation (data reductions and interpretations zero, one, two and three) with data interpretations one, two and three forming the content of chapters five through eight. It is hopefully evident to the reader from reading chapters four to eight that the messages brought forward in these chapters and thus the thesis overall are from the researcher's interpretation of the interview text using the sub-processes as tools to reduce the interview text; from which an interpretation is offered. It is hopefully also evident that the interpretations while facilitated by the reductions are also, unavoidably, informed by the researcher's reading of the literature. In this regard this research knows what it knows through processes of reduction and interpretation and the resultant messages are the researcher's 'best' interpretation of what the interviewees said about the areas explored within the context of the literature that the researcher had previously read.

Appendix 5

Appendix supporting Chapter 5

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Introduction

This appendix supports chapter five of the main thesis. The primary purpose of this appendix is to provide transparency and thus allow greater objectivity with regards to the findings that result from the researcher's analysis of the transcripts, in particular the coding of the transcripts that resulted in data interpretation (1) and the 'Interesting Asides' that sit alongside this interpretation.

Analysing the transcripts was conducted using a software tool (NVivo). This tool automates an otherwise manual process of coding parts of a transcript (references) to a theme. What this means in practice is that the coding process essentially involves the researcher reviewing all the transcripts and identifying pertinent quotes (references). These quotes (references) are then metaphorically categorised (coded) to a particular bucket (theme). Then after reviewing all the transcripts, all the references relevant to a particular theme are collated within that theme. Thus, the coding process is a systematic way of filtering and categorising pertinent text within the transcripts of the interviews. Clearly, this process is not without its subjectivity, although it does reach towards objectivity. As self evidently a researcher's experiences and research agenda render the identification of what is pertinent as an inherently subjective filtering process. Nevertheless, it is hoped, that in creating transparency around the coding process greater objectivity is obtained.

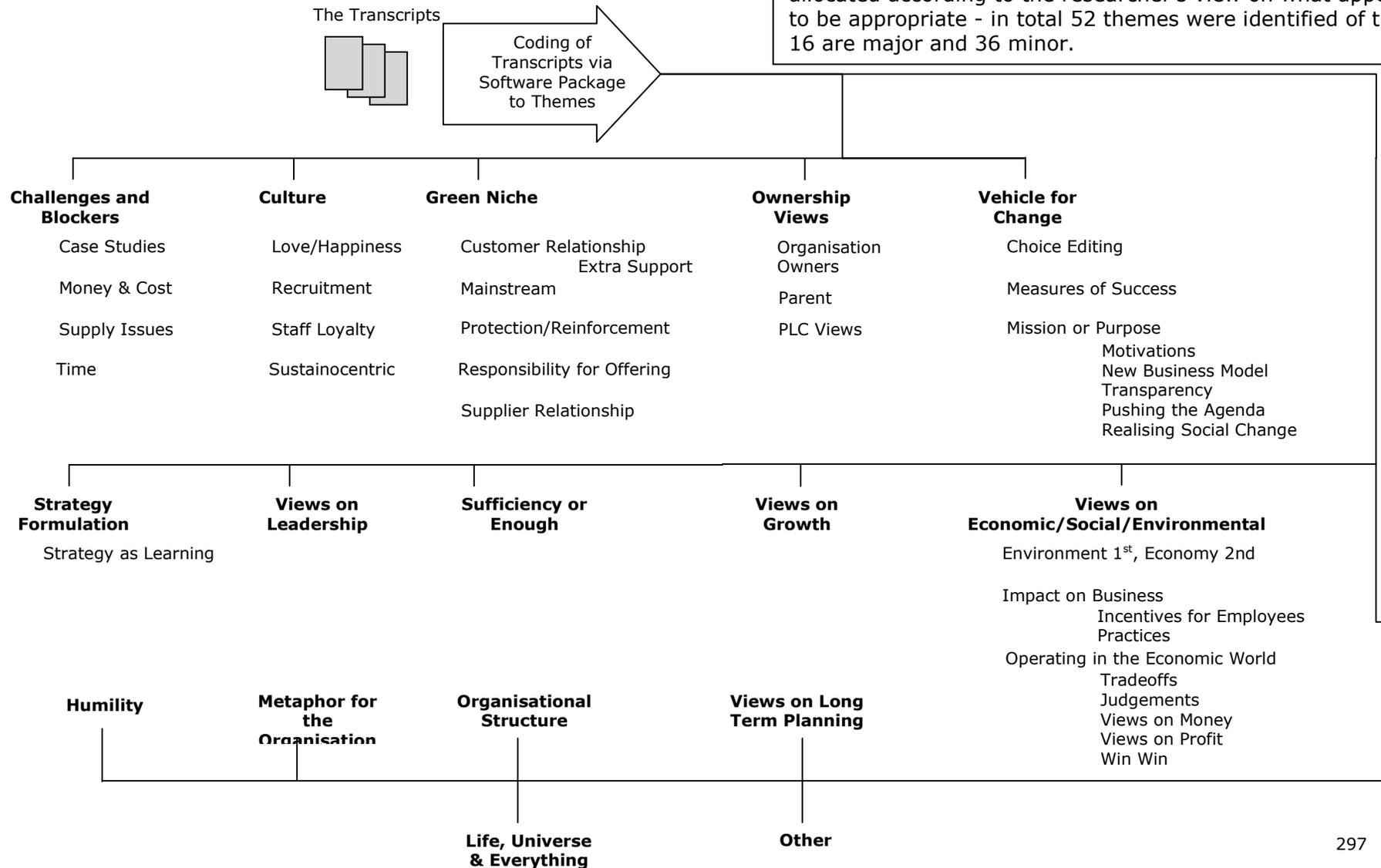
This appendix is split into two main parts. The first part, sections A5.1 to A5.3, provides analysis of the themes in aggregate relative to the sources (interview transcripts) and against the interview attributes. In order to maintain a manageable length to this appendix, the analysis of the major themes against attributes is limited to one illustrative example, the gender attribute. In total seven attributes were recorded against the research sample and all were analysed in a similar way. Hence rather than repeat all seven pieces of analysis it is hoped that the illustrative example, provides the reader with an understanding of the analysis conducted.

The second part section 5.4 provides illustrative examples of how particular themes are analysed in detail. These examples are for the themes of (1) vehicle for change and within this its minor theme of social change and (2) sufficiency. The rationale for choosing these two themes is that the results from the analysis on these themes appear in chapter five as 'Interesting Asides.'

A5.1 Overview of the Themes

Figure A5.1: Pictorial Representation of Themes

The figure below is a pictorial representation of the themes to which transcript text was coded. This figure highlights the sixteen major themes in bold font and the minor themes in non bold font. The minor themes are in essence refinements of a major theme. The grouping of minor to major themes is allocated according to the researcher's view on what appeared to be appropriate - in total 52 themes were identified of these 16 are major and 36 minor.



A5.1.1 Major Themes Analysis

Please note that all the analysis conducted on the themes in the following section is conducted at the level of the sixteen major Themes. This is because as discussed earlier, the minor themes essentially represent a filtering of a major theme.

Figure A5.2: Major Themes by Number of Interviews

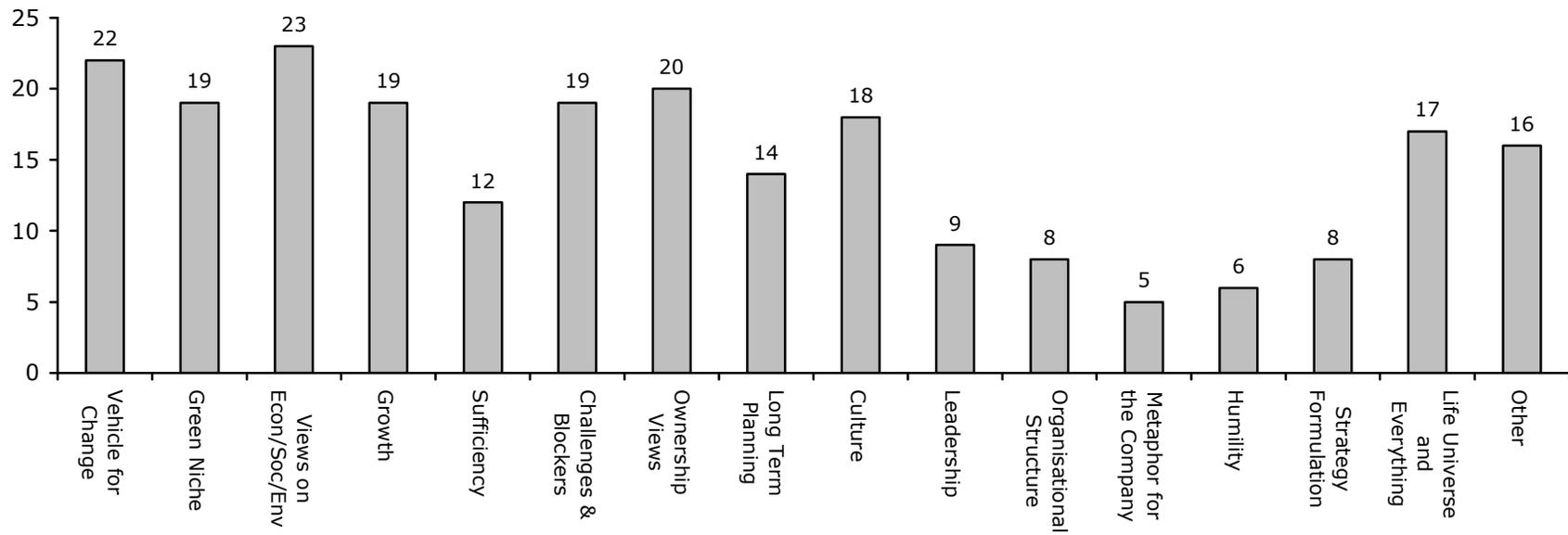
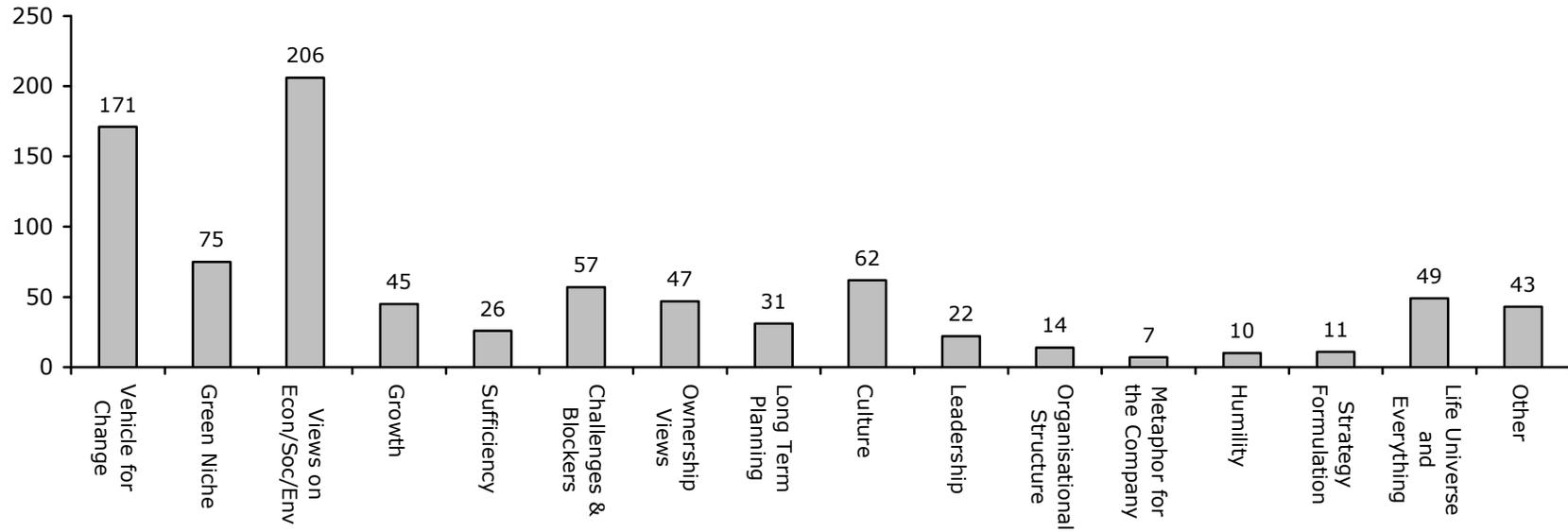


Figure A5.3: Major Themes by Number of References



This chart highlights the number of references coded to a theme, where a reference is some text from a transcript.

A5.2 Overview of Sources

Figure A5.4: Sources by Number of Major Themes the Source was Coded To

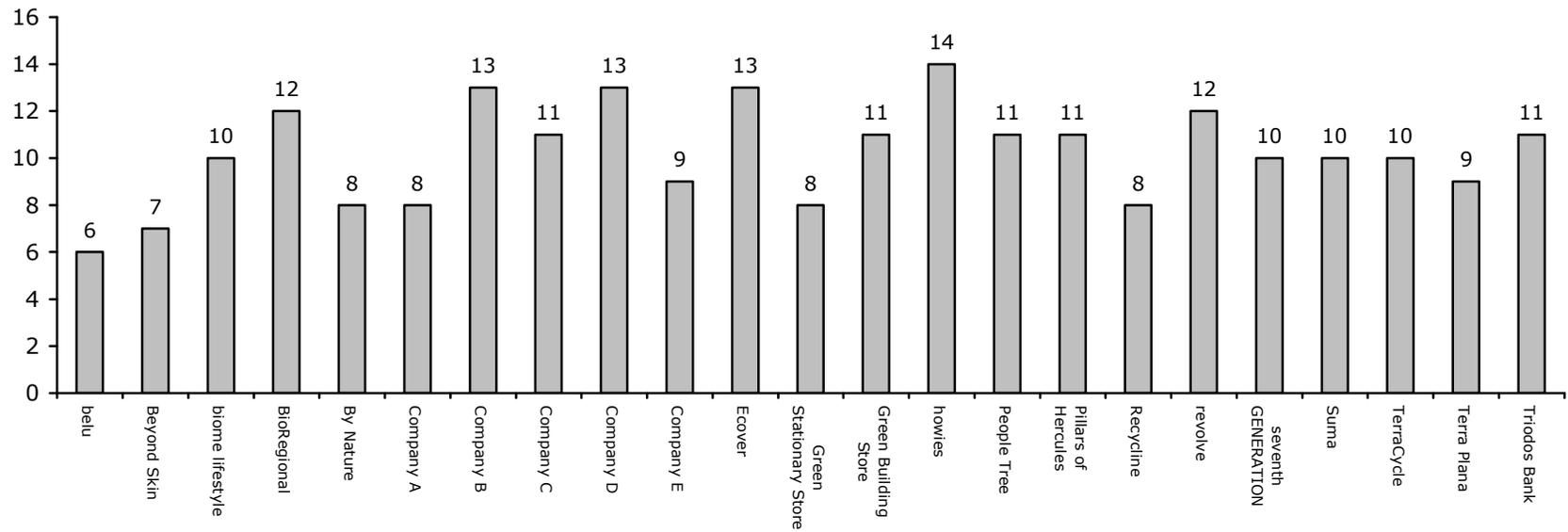


Figure A5.5: Sources by Number of Themes (Major and Minor) the Source was Coded To

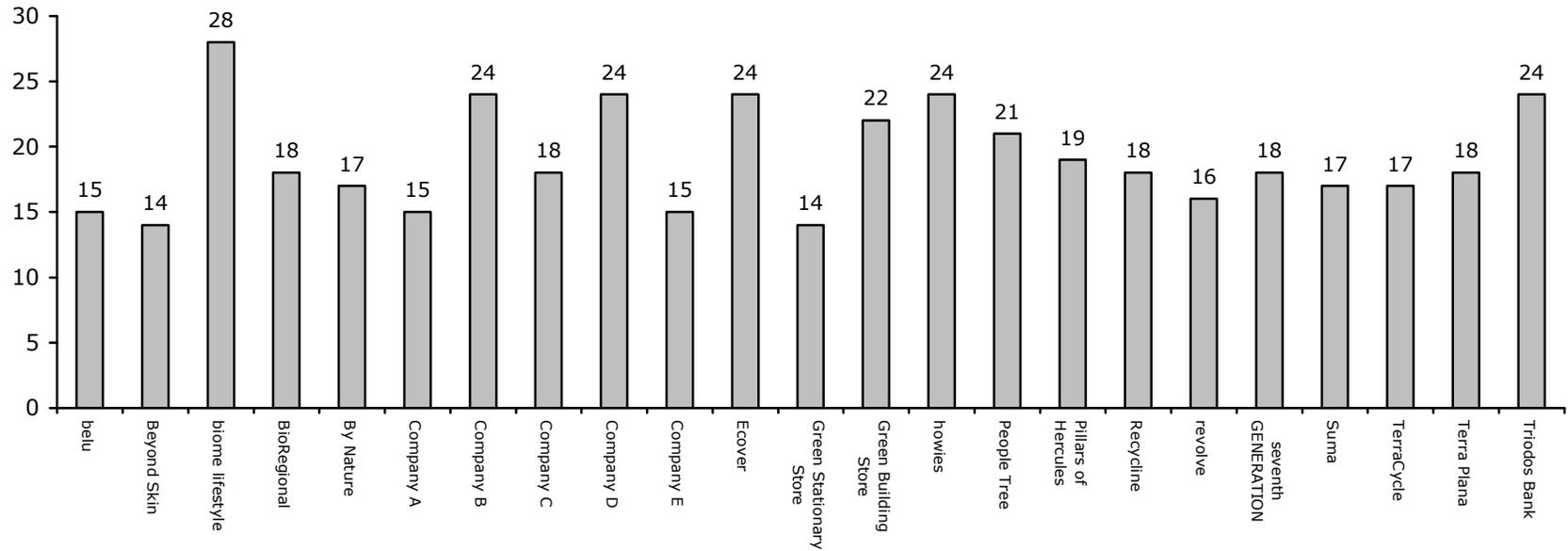
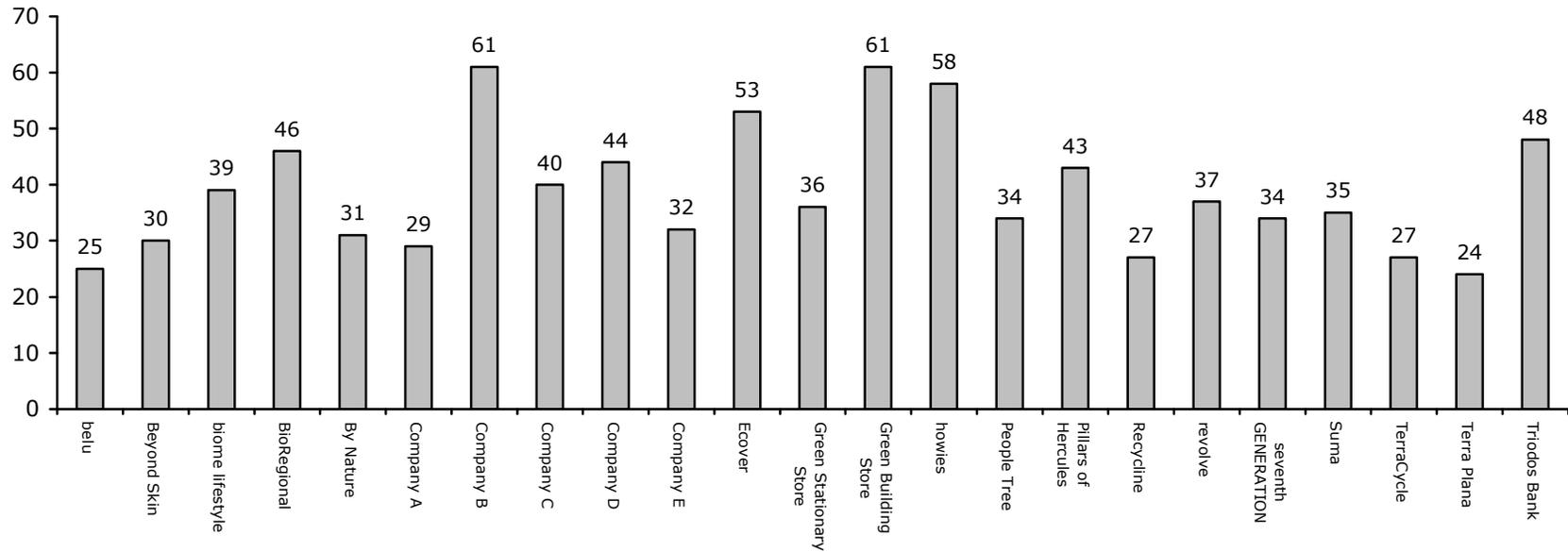


Figure A5.6: Sources by Number of References Created from that Source



Outlined in Figure A5.6 above, is an overview of the number of references (quotes/pieces of text) that are coded from a particular source. So for example, 'belu' had twenty five references coded. This does not mean that twenty five references were created from that source rather references from that source were coded twenty five times. Hence a singular reference could appear in multiple themes thus increasing the count for a particular reference and ultimately source.

A5.3 Sources to Major Themes and Vice Versa

In the following section the sources and major themes are analysed via the use of tables/matrices. First, the major themes are cross-referenced to the sources and following this each major theme and its constituent minor themes are cross referenced to the sources coded to it. The purpose of this analysis is threefold. First, to highlight any potential patterns, second to provide further transparency to the reader and third to aid the researcher in extracting the 'story' of a particular theme.

Table A5.1 : Matrix of Sources Coded to Major Themes

Source	Major Theme ¹⁹²															
	Ch. & Bl	Culture	Green Niche	Humility	Life, Univ	Metaphor	Org. Struct	Other	Ownership	Strat. Form	Suff.	Change	Econ/Soc/Env	Growth	Leadership	Long Term Plan.
belu	X			X					X			X	X	X		
Beyond Skin	X				X	X		X	X			X	X			
biome lifestyle	X	X	X				X			X	X	X	X	X		X
BioRegional	X	X		X	X		X	X	X	X	X	X	X		X	
By Nature	X		X		X				X			X	X	X		X
Organisation A	X	X	X					X	X			X	X			X
Organisation B	X	X	X		X		X		X	X	X	X	X	X	X	X
Organisation C	X	X		X	X			X	X		X	X	X	X		X
Organisation D		X	X	X		X	X	X	X	X	X		X	X	X	X
Organisation E		X	X		X			X	X			X	X	X	X	
Ecover	X		X		X	X	X	X	X	X	X	X	X	X		X
Green Stationary Store		X	X		X			X				X	X	X	X	
Green Building Store	X	X	X		X			X	X		X	X	X		X	X
howies	X	X	X	X	X	X		X	X	X		X	X	X	X	X
People Tree	X	X	X		X		X		X		X	X	X	X		X
Pillars of Hercules	X	X	X		X			X	X		X	X	X	X		X
Recycline	X		X		X				X			X	X	X		X
revolve	X	X	X	X	X	X			X		X	X	X	X	X	
seventh GENERATION	X	X	X		X			X	X			X	X	X	X	

¹⁹² Key to Major Theme Title Abbreviations – Ch. & Bl. = Challenges and Blockers, Life, Univ = Life, Universe and Everything, Metaphor = Metaphor for the Organisation, Org. Struct. = Organisational Structure, Ownership = Ownership Views, Strat. Form = Strategy Formulation, Suff. = Sufficiency or Enough, Change = Vehicle for Change, Econ/Soc/Env – Views on Economy/Social/Environmental, Growth = Views on Growth, Leadership = Views on Leadership, Long Term Plan. = Long Term Planning

Suma		X	X		X			X	X	X	X	X	X	X		
TerraCycle	X	X	X				X	X	X			X	X	X		X
Terra Plana	X	X	X					X		X	X	X	X	X		
Triodos Bank	X	X	X		X		X	X	X			X	X	X		X

Note- The X indicates whether a source was coded to the Theme

A5.3.1 Major Themes to Source by Interview Attributes, Illustrative Example of Gender Attribute

In conducting the interviews, attributes of the interview were also recorded, these attributes included whether the interviewee was male or female, the number of staff in the organisation, the business area of the organisation, the ownership structure of the organisation, whether the interview was conducted face to face or on the telephone, the business role of the individual and lastly the month the interview was conducted. While these attributes are in the main self evident criteria, the month of the interview may not be. This attribute was recorded because of the semi-structured nature of the interviews and the movement that this engenders. The rationale being to cross-check whether there were any significant differences between the months and thus highlight whether as my experience of conducting the interviews grew, whether there were any significant changes in the data that was gathered.

As highlighted in the introduction to this appendix, by way of illustration, only the analysis conducted on the gender attribute is shown.

Table A5.2 : Matrix of Interviewee Gender to Major Themes

Source	Major Theme ¹⁹³															
	Ch. & Bl	Culture	Green Niche	Humility	Life, Univ	Metaphor	Org. Struct	Other	Ownership	Strat. Form	Suff.	Change	Econ/Soc/Env	Growth	Leadership	Long Term Plan.
Male	14	14	16	5	14	4	5	13	17	5	8	17	18	16	8	12
Female	5	4	3	1	3	1	3	3	3	3	4	5	5	3	1	2

When considering averages for gender of interviewee, the average male interviewee was coded to 10 themes and the average female to 10 themes. These figures indicate there was no bias/finding of significance from these figures at this level of analysis.

In Figure A5.7 below, there are some interesting differences such as more of the male interviewees had transcript coded to the green niche theme and relatively twice as many women as men discussed organisational structure.

¹⁹³ Key to Major Theme Title Abbreviations – Ch. & Bl. = Challenges and Blockers, Life, Univ = Life, Universe and Everything, Metaphor = Metaphor for the Organisation, Org. Struct. = Organisational Structure, Ownership = Ownership Views, Strat. Form = Strategy Formulation, Suff. = Sufficiency or Enough, Change = Vehicle for Change, Econ/Soc/Env – Views on Economy/Social/Environmental, Growth = Views on Growth, Leadership = Views on Leadership, Long Term Plan. = Long Term Planning

Figure A5.7: Themes by Percentage of Male/Female Respondents Coded to the Theme

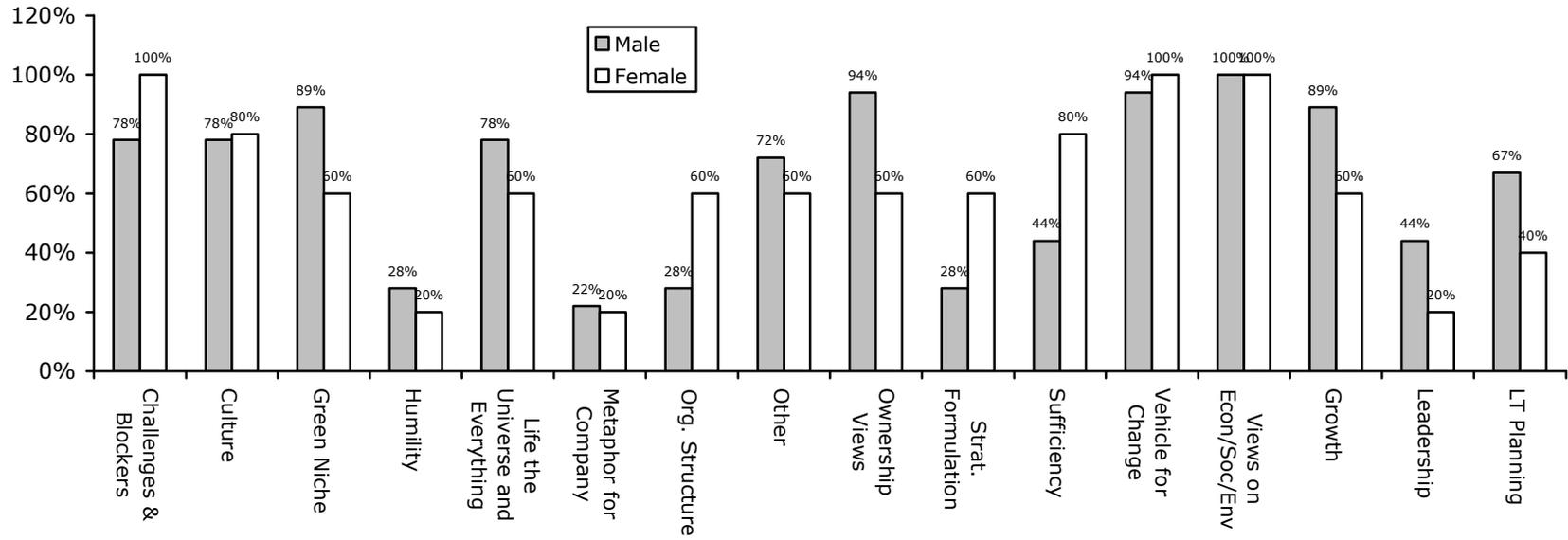
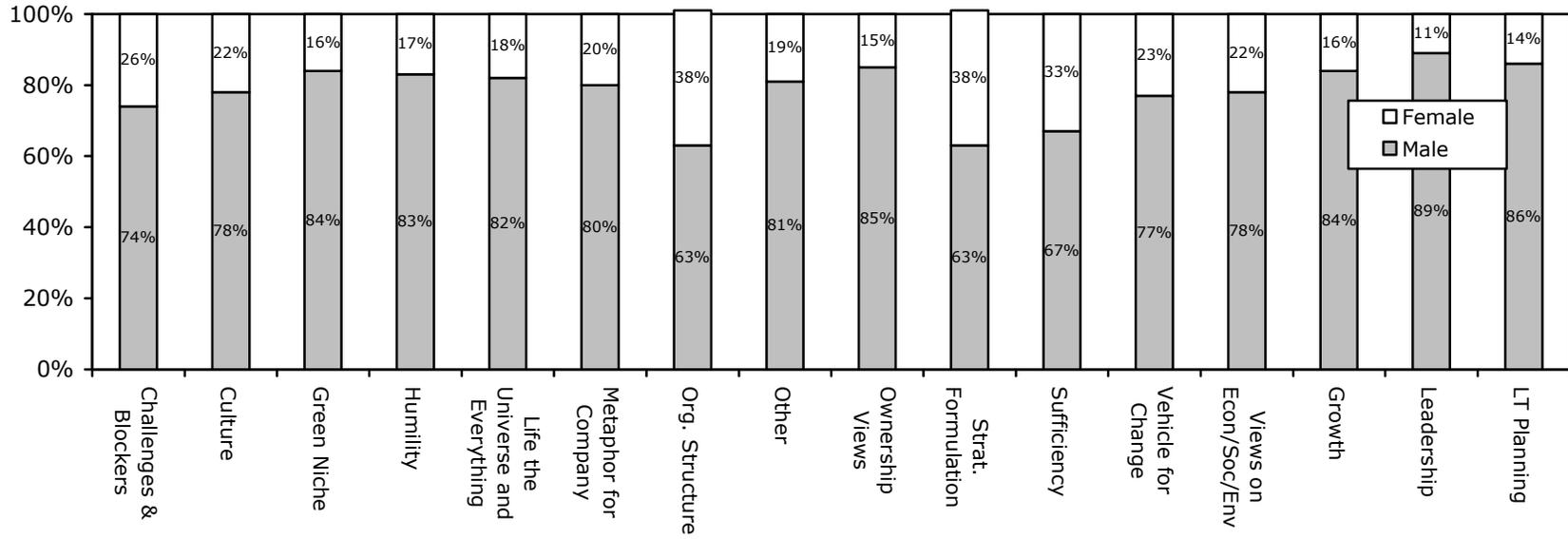


Figure A5.8: Themes by Percentage of Male to Female Respondents in that Theme



Summary of Analysis (sections 5.1 to 5.3)

To use an analogy, if one imagines that they are standing in a room and on the walls are the pages of the transcript. The researcher who is the individual standing in the middle of this room has read all the transcripts and taken the interesting pieces of text (to their mind) and categorised it into different buckets (themes). This description of the process as a re-categorisation of the interesting elements of the transcripts indicates the temporal nature of the research. This temporality arises because what is interesting today is a function not only of the researcher on that day but also the purposes of the project. As such it indicates that while the results brought forward can be repeated because they are transparent it also indicates that at a different point in time and using a different frame of reference to that dictated by current context a different set of results could be brought forward.

Nevertheless, the temporality of the process aside, the analysis above on the major themes not only aids the transparency of the process and allows others to understand what the researcher did in the metaphorical room; it also serves as a check. Whereby the checks are questions such as;

1. Are all the sources (interviews) coded to a reasonable degree?
2. Do all the themes (metaphorical buckets) have representation from a number of interviews?
3. Are there a reasonable number of references (as well as a reasonable number of sources) in each theme (bucket)?
4. Do all the interviews generate a reasonable number of references which have then been categorised/coded to Themes (buckets)?
5. When reviewing the coded transcript data (references) and the source (interview) from which it came are there any particular anomalies? Especially if we search for anomalies by gender of interviewee, size of organisation, business area, etc.

The answer to questions one to four is 'yes' and to question five is 'no'. Thus in summary the researcher and an observer can have reasonable confidence that there is nothing skewing the data gathered into the metaphorical buckets nor is there any important insight being missed, at this level of analysis. The proviso of 'at this level of analyses is particularly important because it provides a disclaimer regarding the analysis conducted at the major theme level. Whereby it denotes to an observer, that taking into account the vagaries and temporality of conducting semi-structured interviews and coding them, there does not appear to be anything pertinent that is not being uncovered.

The next stage of analysis is to analyse each major theme in detail to ensure that the intimacy of the 'story' of the theme is extracted and also again to ensure that pertinent points are not missed.

A5.4 Individual Theme Analysis

A5.4.1 Introductory Note

As discussed in the introduction to this appendix, only the analysis of two themes is offered as an illustration of the analysis conducted on all the themes. Those two themes are (1) vehicle for change - social change and (2) sufficiency. These two themes are chosen as the analysis on them resulted in 'Interesting Asides' in data interpretation (1), chapter 5 of the thesis.

The analysis on each theme is limited to the following attributes; staff numbers, organisation ownership and role of interviewee. These attributes are chosen as opposed to gender, interview medium, month of interview and business area for the following reasons. First, gender is not analysed because this attribute was not part of the screening process for identifying research subjects and also one needs to ask whether a distinction would help the study. Clearly, knowing that more women than men have text coded to an area maybe interesting but it serves no purpose for the study, especially as gender issues are not the foci of investigation. Second, interview medium and month of interview are not investigated because knowing that more face to face interviews versus telephone interviews showed this or interviews conducted in this month versus that month showed this is not particularly beneficial. Finally, with regard to business area, this attribute is not investigated not only because the three categories are too broad to be meaningful, but also because the nature of the study was not about the organisation's offering but their choices and decisions about their organisation.

The data displayed for each theme against the three attributes of staff numbers, organisation ownership and interviewee role is a percentage chart highlighting the percentage of sources within each category of the attribute that are coded to the theme. Hence inferences such as relatively more of this category than that category had text coded to this theme can be made. This is the primary data display used because any other display is skewed by the sample quantities, with regards to the fact that in all cases 50% or more of the sample falls within one category within an attribute.

A5.4.2 Vehicle for Change

This major theme attempts to capture all the transcript data that describes how the interviewee's organisation is a vehicle for change regarding their organisation's mission of creating a more sustainable world.

Within this theme, eight minor themes were created to essentially allow the contents of this theme to be refined further. These minor themes are as follows;

- Choice editing – Collating interviewee's transcript data where the organisation's purpose is discussed as being offering customers a better, more environmentally friendly choice than existing alternatives
- Measures of Success – Capturing how the interviewee measures the success of the organisation
- Mission or Purpose – Outlining how the interviewee's discuss the driving force of what they are doing
 - Motivators – Related to the Mission or Purpose minor theme, this theme captures specifics regarding interviewee's motivations
 - New Business Model – Related to the mission or purpose minor theme, this attempts to capture the specifics of those individuals who stated the mission or purpose as being the creation of a new type of business
 - Transparency - Attempts to capture those interviewee's who discussed a new business model within the context of transparency
 - Pushing the Agenda – Attempts to capture how the companies see their purpose within the context of the wider environmental agenda and the continual pushing of boundaries
 - Realising social change is similar to the pushing the agenda theme except that the data is within the context of creating social change

Table A5.3 : Vehicle for Change Matrix

Source	Vehicle For Change - Using Business as Tool ¹⁹⁴	Choice Editing	Measure s of Success	General ¹⁹⁵	Social Change	New Business Model	Pushing Agenda	Motivato rs
belu	2	5		1		2		
Beyond Skin		2				1	3	3
biome lifestyle		1		1	1	2		1
BioRegional					1	1		1
By Nature		7		1			2	1
Organisation A							2	
Organisation B	2	1	1	1	5	3		2
Organisation C		1	1	3		1		1
Organisation D								
Organisation E	2			4	1	2		
Ecover		3		1	3		3	
Green Stationary Store		7		2		1		
Green Building Store			4				4	1
howies		1		5	1	3		
People Tree	1		4	2			1	
Pillars of Hercules		3						1
Recycline	1	1		3	3			
revolve				3				1
seventh GENERATION				1	1	4		
Suma		3	2	3		1		
TerraCycle	1	2		2	1			
Terra Plana		2				1		
Triodos Bank	1	2		1	2	4	1	
Total No. Sources	7	15	5	16	10	12	7	9
Total No. References	10	41	12	34	19	27	16	12

Note - The figure indicates the number of references from that source as well as indicating that the source was coded to that Theme.

The matrix highlights that all of the interviewed companies were coded to this Theme with the exception of organisation D.

¹⁹⁴ Using business as a tool is a title that attempts to capture those sources that were coded to the major Theme vehicle for change, yet could not necessarily be coded to one of the constituent minor Themes

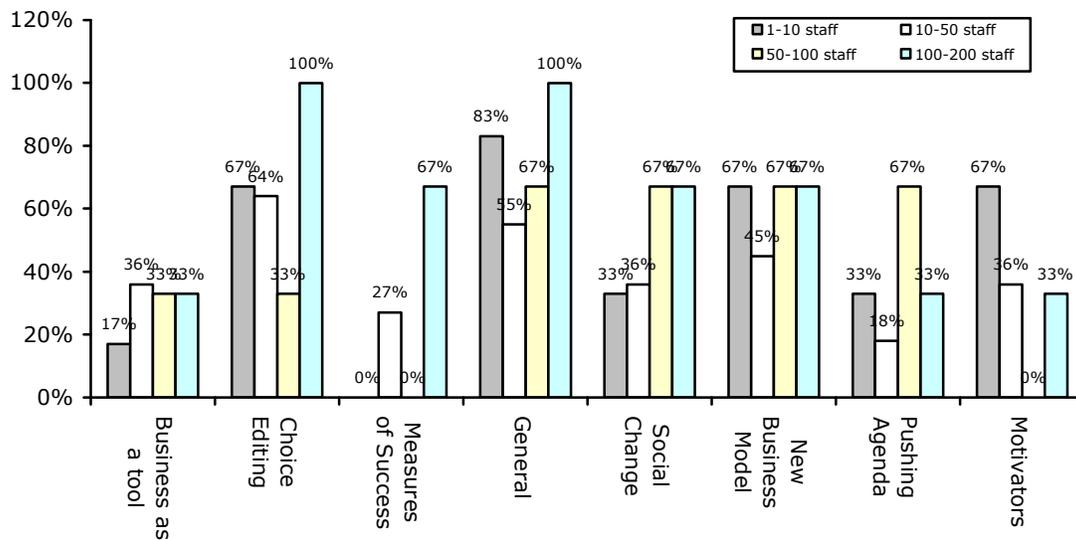
¹⁹⁵ General denotes the coding that is under the mission and purpose Theme as opposed to the minor Themes under the mission and purpose Theme.

A5.4.2.1 Review of Vehicle for Change Theme by Staff Numbers

By staff numbers, the average number of themes each category was coded to within this theme was as follows;

- 1-10 staff – 4
- 10-50 staff – 4
- 50-100 staff – 3
- 100-200 staff- 5

Figure A5.9: Vehicle for Change Theme by Percentage of Staff Number Categories Coded to its Minor Themes



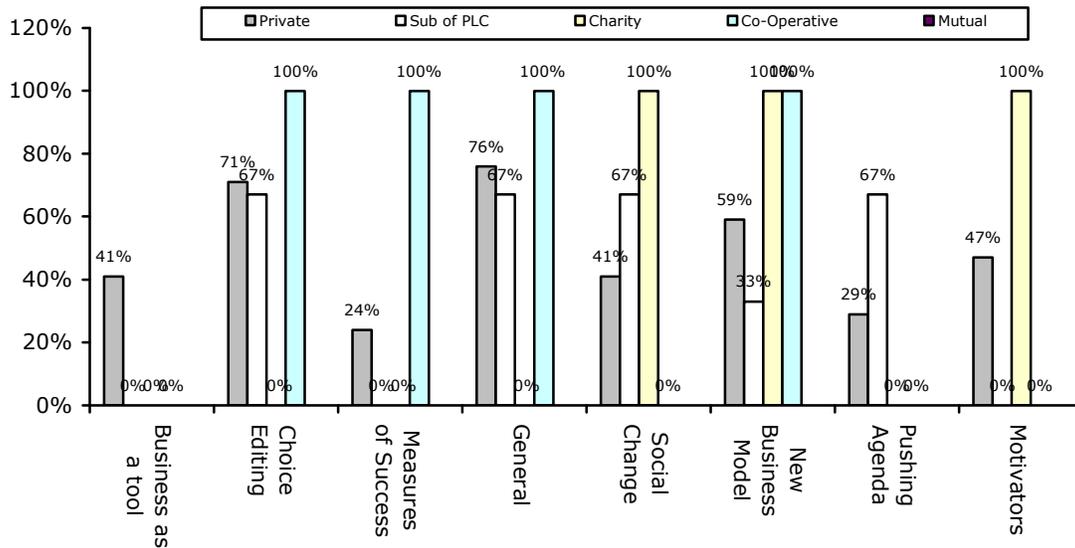
The chart above does indicate that relatively, the larger companies had more text coded to choice editing and realising social change compared to the smaller companies. Further, the 50-100 staff companies had less text coded to pushing the agenda, and the smallest companies talked less about the business as a tool and more about motivations.

A5.4.2.2 Review of Vehicle for Change Theme by Organisation Ownership

By organisation ownership, the average number of themes each category is coded to within this theme is as follows;

- Private – 4
- Subsidiary of PLC – 3
- Charity – 3
- Co-operative – 4
- Mutual – 0

Figure A5.10: Vehicle for Change Theme by Percentage of Ownership Categories Coded to its Minor Themes



The key distinction to review on the chart above is that between privately owned and subsidiary of a PLC, as all other categories only had one entity within them. Further the distinction between privately owned and PLC was something that was screened for. As can be seen the private companies relatively had significantly more text coded to the business as a tool category, less to social change, more to a new business model, less to pushing the agenda.

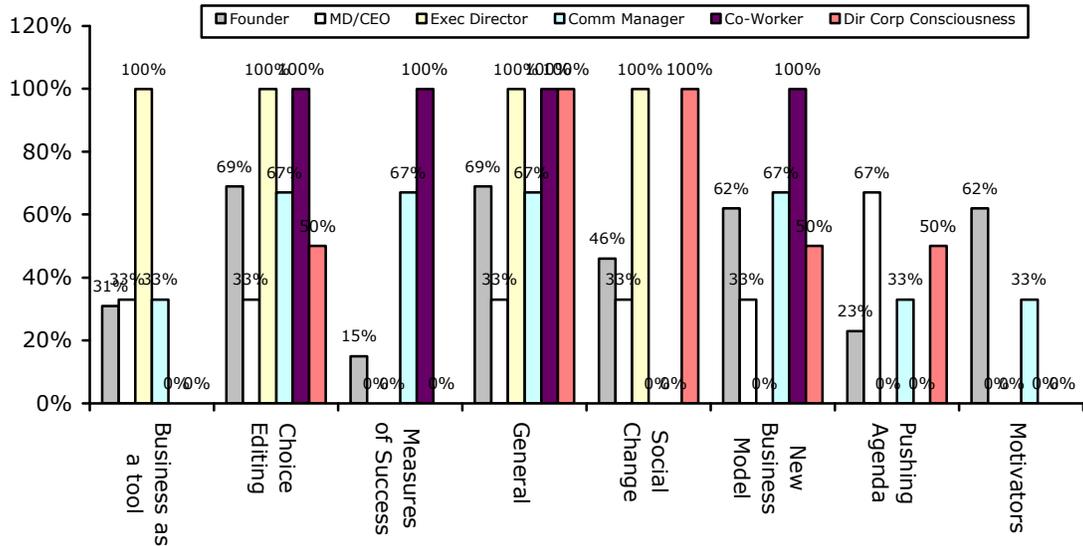
Whilst, these findings are interesting given the relative sample sizes and the variables involved there is nothing of significance that can be drawn from this data, or if it were to be its validity would be highly debatable.

A5.4.2.3 Review of Vehicle for Change Theme by Interviewee Role

By interviewee role, the average number of themes each category is coded to within this theme is as follows;

- Founder – 4
- Managing Director – 4
- Executive Director – 4
- Commercial Manager – 4
- Co-worker – 4
- Corporate Consciousness - 4

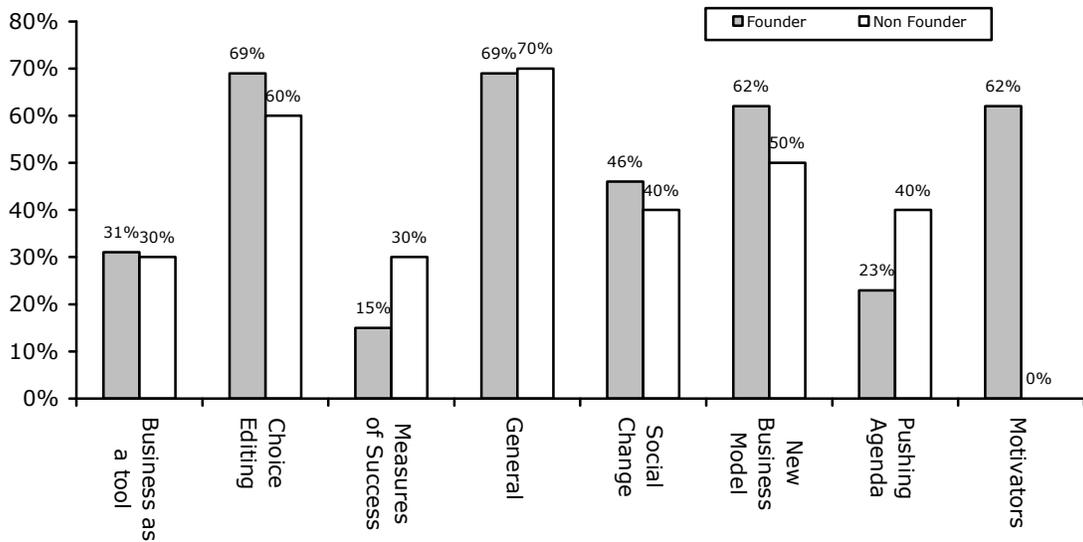
Figure A5.11: Vehicle for Change Theme by Role of Interviewee Categories Coded to its Minor Themes



Whilst there are clear distinctions on this chart there is a requirement for caution. This caution arises because the founder category contains thirteen individuals, whilst the others each contain three or less.

Reviewing the data by founder to non-founder is shown in the chart below.

Figure A5.12: Vehicle for Change Theme by Founder to Non-Founder Role Coded to its Minor Themes



As can be seen founders talked about their motivations whereas non-founders did not, this is not surprising, given that if interviewing a founder this question would be asked as a method of opening up the conversation.

A5.4.3 Sufficiency

This theme has no minor themes beneath it. It is significant because it informs the research questions on sufficiency and profit maximisation. While there is a philosophical discussion to be had about what is sufficiency and how open to personal interpretation the term is in practice. Some kind of engagement with sufficiency does run counter to the many of the meta- messages for companies. That said, the notions of sufficiency offered are offered by invariably the same companies that discuss growth as being appropriate.

Table A5.4 : Sufficiency or Enough Matrix

Source	Sufficiency or Enough
Belu	
Beyond Skin	
biome lifestyle	1
BioRegional	4
By Nature	
Organisation A	
Organisation B	3
Organisation C	1
Organisation D	1
Organisation E	
Ecover	1
Green Stationary Store	
Green Building Store	4
Howies	
People Tree	3
Pillars of Hercules	5
Recycline	
Revolve	1
seventh GENERATION	
Suma	1
TerraCycle	
Terra Plana	1
Triodos Bank	
Total No. Sources	12
Total No. References	26

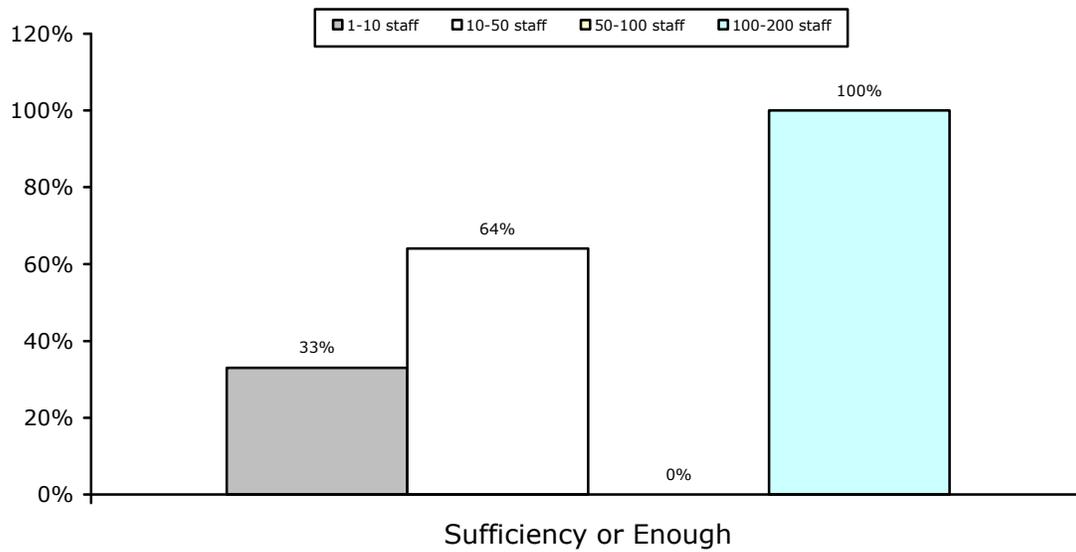
Note – The figure indicates the number of references from that source as well as indicating that the source was coded to that Theme.

The fact that eleven companies did not have text coded to this theme could be interpreted as telling. However, it would be appropriate to avoid overplaying this finding as linking the stories of each of the interviewee's to other areas would not make the absence so telling. For example with regards to trade-offs with the environment all had areas they would not compromise on. Further, this researcher would always be wary of making a definitive statement with regards to the absence

of data, given the variables and vagaries that are inherent in semi-structured interviews and the coding process.

A5.4.3.1 Review of Sufficiency Theme by Staff Numbers

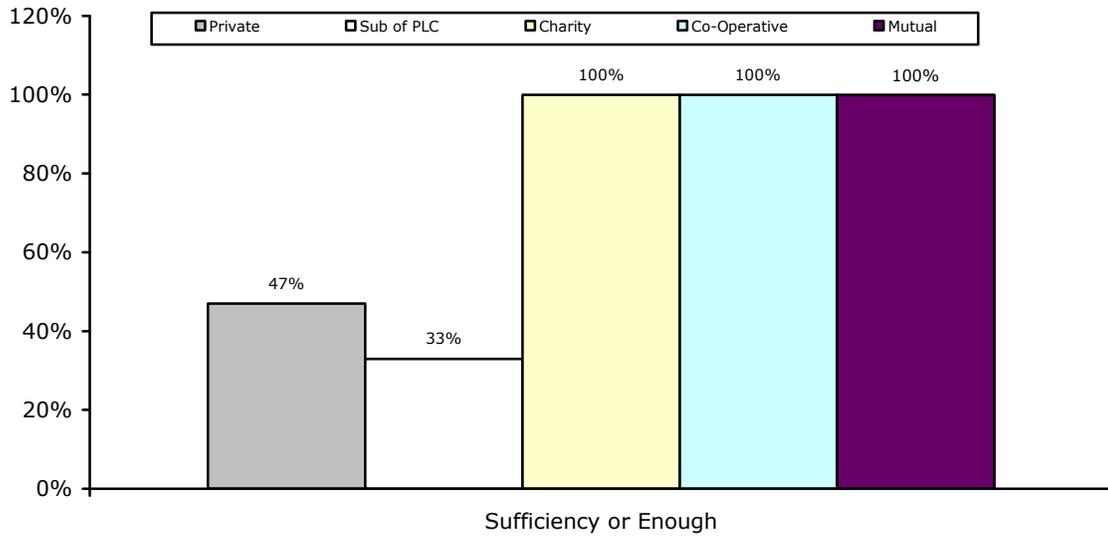
Figure A5.13: Sufficiency or Enough Theme by Percentage of Staff Number Categories Coded to its Minor Themes



Within the context of coding transcript data, the chart above raises a point whereby perhaps when an organisation reaches a certain size it is more likely to recognise sufficiency or enough but when an organisation is starting out, it's all about growth.

A5.4.3.2 Review of Sufficiency Theme by Organisation Ownership

Figure A5.14: Sufficiency or Enough Theme by Percentage of Ownership Categories Coded to its Minor Themes



A5.4.3.3 Review of Sufficiency Theme by Interviewee Role

Figure A5.15: Sufficiency or Enough Theme by Role of Interviewee Categories Coded to its Minor Themes

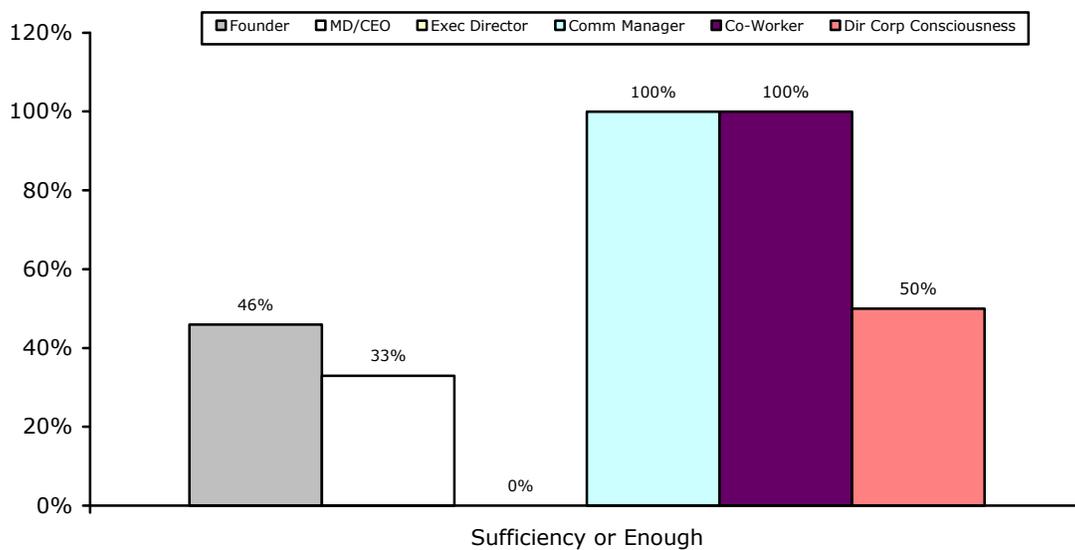
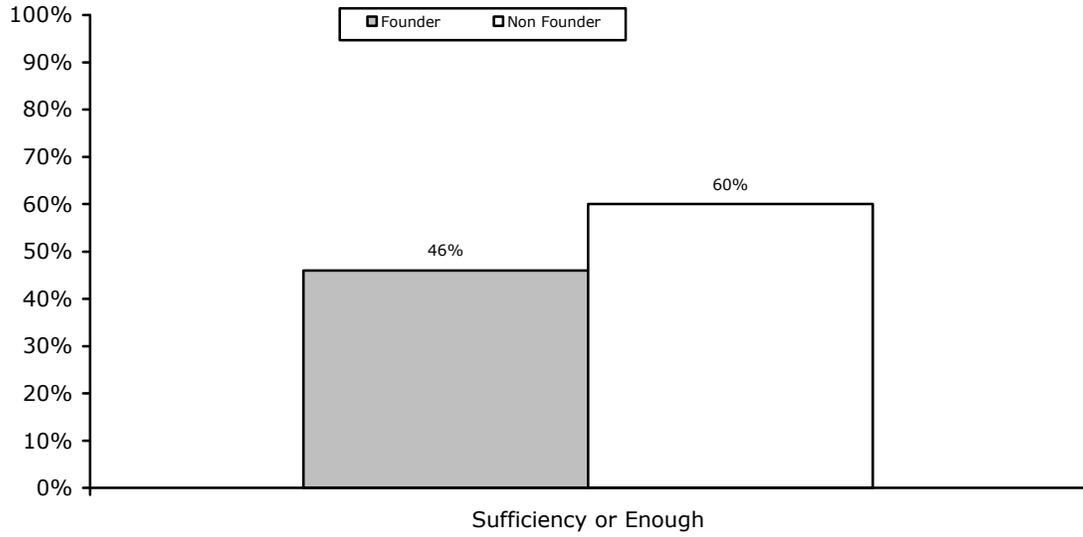


Figure A5.16: Sufficiency or Enough Theme by Founder to Non-Founder Role Coded to its Minor Themes



Appendix 6

Appendix to support Chapter 6

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A6.1 - Extended Note on Altruism and Selfishness

Within chapter one and chapter six an aphorism that draws upon the work of Maturana and Varela (1998) is offered, altruistically selfish and selfishly altruistic. Although a brief example is offered within the text of chapters one and six regarding this aphorism, outlined below are some extended notes from Maturana and Varela (1998) regarding the behaviour the aphorism implies.

Maturana and Varela (1998:197)

"We can say that when an antelope stays behind and takes a greater risk than the others, it is the group which benefits and not necessarily the antelope. We can also say that when a worker ant does not reproduce but goes about getting food for all the offspring on the anthill, once again it is the group which benefits and not that ant directly."

"It is as through there were a balance between individual maintenance and subsistence and the maintenance and subsistence of the group as a greater unity that encompasses the individual. In fact, there is a balance between individual and group in natural drift as long as the organisms through their structural coupling into higher-order unities (which have their own realm of existence) include the maintenance of these unities in the dynamics of their own maintenance"

"Ethologists have termed "altruistic" those actions that can be described as beneficial to the group. They have chosen a name that evokes a form of human behaviour charged with ethical connotations. This may be so because biologists have long lived with a view of nature as "red in tooth and in the claw", as a contemporary of Darwin said. We often hear that what Darwin proposed has to do with the law of the jungle because each one looks out for his own interests, selfishly, at the expense of others in unmitigated competition."

"This view of animal life as selfish is doubly wrong. It is wrong, first, because natural history tells us, wherever we look, that instances of behaviour which can be described as altruistic are almost universal. Second, it is wrong because the mechanisms we put forward to understand animal drift do not presuppose the individualistic view that the benefit of one individual requires the detriment of another." ... "We can consider also the group unity which individuals are a component of. In doing so, we see that the group necessarily conserves adaptation and organisation in its realm of existence. In that group as a unit, individual components are irrelevant, for they can all be replaced by others that fulfil the same relations. For components as living beings, however, their individuality is their very condition for existence. It is important not to confuse these two phenomenal levels, to fully understand social phenomena. The behaviour of the antelope that stays behind has to do with conservation of the group; it expresses characteristics proper of antelopes in their group coupling as long as the group exists as a unity. At the same time, this altruistic behaviour in the individual antelope as regards group unity results from its structural coupling in an environment that includes the group; it is an expression of conservation of its adaption as an individual. There is no contradiction, therefore, in the antelope's behaviour insofar as it expresses individuality as a member of the group: it is "altruistically" selfish and "selfishly" altruistic, because its expression includes its structural coupling in the group it belongs to."

A6.2 – Note on the Barter and Bebbington, 2010 Report Relative to this Thesis

To ameliorate the cost of travelling to interviews for this research study, halfway through conducting the interviews a grant was won from the Association of Certified Chartered Accountants (ACCA). This grant covered the cost of travelling to all the interviews. In return for the grant, the agreed output for the ACCA was a report on the key findings from the interviews: that report has now been published and is referenced as Barter and Bebbington, 2010. The Barter and Bebbington (2010) report for the ACCA contained some of the key messages found in chapters five and six of this thesis, as well as one summary table from chapter seven. The key points of divergence between the ACCA report and this thesis is that this thesis has a more thorough literature review and discussion of research methodology. Further it is more thorough in the development of the narratives that emerge from the interviews and it uses Actor-Network Theory, an aspect the ACCA report does not have. Overall this thesis is more embedded in the literature, more reflective and more considered in making its points relative to the ACCA report (Barter & Bebbington, 2010). To summarise, the ACCA report is a partial, less thorough, subset of this thesis.

Appendix 7

Appendix to support Chapter 7

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Introduction

This appendix supports chapter seven of the main thesis. The primary purpose of this appendix is to provide transparency and thus allow greater objectivity with regards to the findings that result from the researcher's analysis of the transcripts, in particular the coding of the transcripts to the paradigm scheme offered by Gladwin, et al., (1995) and the 'Interesting Asides' that sit alongside that analysis.

This appendix is split into two main parts. The first part, sections A7.1 to A7.4, provides displays of the interview sample as a whole along with the analysis of the interview sample against attributes. The attributes being whether the interviewee is male or female, the size of the organisations, the business area of the organisations, the organisations' ownership status, whether the interview was conducted face to face or by telephone, the role of the individual interviewed split by whether they are the founder or not and lastly the month the interview took place. Following this there is some discussion of the transcript text that was coded to each paradigm assumption, in order to provide the reader with insight into the process of coding and the rationale for coding decisions made by the researcher.

The second part of the appendix (section A7.5) highlights the coding for each individual interview. The discussion of each interview reproduces not only how that particular interview maps to the paradigm scheme offered by Gladwin, et al., (1995), it also elaborates by discussing why a particular piece of text from an interview was coded to a particular assumption in the paradigm scheme.

A7.1 - Macro Analysis of Interview Sample Relative to the Paradigms

Table A7.1: No. of Interviews Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Scientific & Technological			
1. Resilience of nature	Tough/robust	Varied/fragile	Highly vulnerable
2. Carrying capacity limits	No limits	Approaching	Already exceed
3. Population size	No problem	Stabilise soon	Freeze/reduce
4. Growth pattern	Exponential	Logistic	Hyperbolic
5. Severity of problems	Trivial	Consequential	Catastrophic
6. Urgency of solutions	Little/wait	Great/decades	Extraordinary/now
7. Risk orientation	Risk taking	Precaution	Risk aversion
8. Faith in technology	Optimism	Scepticism	Pessimism
9. Technological Pathways	Big/centralised	Benign/decoupled	Small/decentralised
10. Human vs Natural Capital	Full substitutes	Partial substitutes	Complements
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

A7.1.1 – Text (Sentences/Phrases) Coded

Using the same mode of data display as that shown in Table A7.1 but counting the number of pieces of text (sentences/phrases) from an interview rather than the number of interviews (sources), the data display of Table A7.2 is realised. It is important to note that an interview may have more than one piece of text coded to a particular assumption.

Table A7.2: No. of Pieces of Text (Sentences/Phrases) Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 3	Heterarchical
5. Humans and nature	Disassociation	Interdependence 17	Indisassociation 3
6. Human role	Domination	Stewardship 16	Plain member 1
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1	Multiscale 5	Indefinite 1
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Scientific & Technological			
1. Resilience of nature	Tough/robust	Varied/fragile	Highly vulnerable
2. Carrying capacity limits	No limits	Approaching	Already exceed
3. Population size	No problem	Stabilise soon	Freeze/reduce
4. Growth pattern	Exponential	Logistic	Hyperbolic
5. Severity of problems	Trivial	Consequential	Catastrophic
6. Urgency of solutions	Little/wait	Great/decades	Extraordinary/now
7. Risk orientation	Risk taking	Precaution	Risk aversion
8. Faith in technology	Optimism	Scepticism	Pessimism
9. Technological Pathways	Big/centralised	Benign/decoupled	Small/decentralised
10. Human vs Natural Capital	Full substitutes	Partial substitutes	Complements
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 28	Ecological integrity
2. The good life	Materialism	Post materialism 5	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 21	Green economy 20	Steady state
5. Role of growth	Good/necessary 8	Mixed/modify 18	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 4	Bioregional
10. Political structure	Centralised 7	Devolved 8	Decentralised 2

As can be seen the counts in Table A7.2 are relatively similar to those in Table A7.1.

A7.1.1.1 – Review of Coded Text (Sentences/Phrases), ‘Ontological & Ethical’ Assumptions

System Structure

- From reviewing Gladwin, et al., (1995) holoarchival is a new word that attempts to capture that “there are no wholes and no parts anywhere in the universe; there are only holons (whole/parts)” (ibid:890) that communicate with each other in an upward and downward manner.
- The text coded to this assumption captures an interviewee’s statement regarding the value of all parts of the society as they see it and thus the ethos of whole/parts (holoarchival). The interviewee discusses how even though refuse collectors are sometimes considered to be devalued in society they perform an important role that allows the whole system to function – they are an equally important part of the whole (Company D). Text from an interview with Gregor Barnum of Seventh Generation was also coded to this assumption. The text coded highlights the interviewee’s discussion (Gregor Barnum) about how within the organisation he works for there is a “whole drive for systems thinking is really how do you build greater capability, how do you mind greater capability in everybody within the organisation”.

Humans and Nature

- Twenty pieces of text were coded to this area, seventeen of which were coded to interdependence (sustaincentrism) and three to indisassociation (ecocentrism).

Interdependence (Sustaincentrism)

- Seventeen pieces of text were coded to this area from eleven different interviews. Interdependence attempts to capture that “humans are neither totally disengaged from nor totally immersed in the rest of nature [and] humans are above the biosphere in intellectual terms” (Gladwin, et al., 1995:890).
- The text coded to this assumption reflects the pragmatism and duality in the Gladwin, et al., (1995) description, whereby interviewees discussed how there is a requirement to generally respect the environment and recognise we are part of it, but at the same time not deny the fact that we are humans operating within an economic world and our intelligence will help ensure a healthy environment for future generations.
- That so many interviewees had text coded to this assumption base is not surprising given that they invariably business people who have arguably already reached a level of pragmatism that allows for this duality, as if they had not they would probably not have started their operations.

Indisassociation (Ecocentrism)

- Indisassociation attempts to capture that not only is humanity entwined with and part of the environment but it also rejects humanity's intelligence and thus that humans may "occupy a privileged place in nature" (Gladwin, et al., 1995: 886).
- Two pieces of text from one interview (Company E) had text coded to this area as well as one piece of text from Green Building Store. The Company E interviewee also had text coded to interdependence above. The particular text coded to this assumption from Company E reflects that the individual not only sees humanity as "umbilically attached" to the land but also that we are only one part of the "supply chain". Thus while recognising humanity's privileged position via having text coded to interdependence above, the interviewees also go further and leans closer to ecocentrism by outlining how humans are just part of the "supply chain" and thus just another piece of the environment.
- That company E had text coded in this way is perhaps not surprising given the nature of the organisation is woodland management and furniture making in a woodland location. Thus indicating a potentially closer relationship with the environment than would otherwise be assumed for individuals working in urban environments where they are more physically removed from raw materials in their more natural state.
- The text from Green Building Store coded to this assumption concerned the interviewee's comment that the environment is part of their "DNA rather than just bolted on" (Green Building Store, Chris Herring, Co-founder).

Human Role

- Seventeen pieces of text were coded to this area, sixteen of which were coded to stewardship (sustaincentrism) and one to plain member (ecocentrism). As above with humans and nature this predominance of sustaincentrism (stewardship) is perhaps not surprising given the individuals involved have started organisations with a purpose of improving the environment (however they define that); as such that they have started organisations is arguably an enactment of their responsibilities and intrinsic belief and assumption regarding stewardship.

Stewardship (Sustaincentrism)

- Sixteen pieces of text were coded to this area from thirteen interviews. Stewardship aims to capture the "moral obligation" (Gladwin, et al., 1995:891) that humanity has towards the planet and or environment. This assumption flows from the interdependence assumption. As if an individual accepts humanity's intelligence as well as our dependence then a moral obligation to steward and look after the planet is an appropriate consequence. The text coded to this assumption reflects this moral obligation with comments such as "we've got to work out how we all operate together and work together" (Green Stationary Store, Jay Risebridger) or that "we have a duty of care" (Green Building Store, Bill Butcher) indicating interviewees' views regarding humanity's central role in resolving environmental issues and stewarding ourselves and our interaction with the planet.

Plain Member (Ecocentrism)

- One company had text coded to this area (Company E). The text coded was the same as that which informed the previous assumption 'indisassociation'. Likewise, as before it was coded to 'plain member' (ecocentrism) for the same reasons.

Time/Space Scales

- Seven pieces of text were coded to this assumption area from seven sources. Five of them were coded to the multiscale variant (sustaincentrism) and one each to short/near (technocentrism) and indefinite (ecocentrism).
- The variants of the time space scales are not defined by Gladwin, et al., (1995). However, in moving from short/near through multiscale to indefinite a full spectrum of time and space scales is captured adjectivally; with multiscale capturing the synthesis of technocentrism's thesis and ecocentrism's antithesis. The leaning towards short/near being technocentric can be validated from the perspective that if technocentrism is not sustainable (as argued by Gladwin, et al., 1995) and sustainability discusses generational timeframes (for example see Brundtland definition of sustainable development by the World Commission on Environment and Development (1987)) by way of a tautology technocentrism has short timeframes because it is not generational in its view.
- The coding of text to this assumptive grouping was informed by the understanding outlined above and relied on a more literal interpretation whereby interviewees mentioned planning horizons in relation to their business and provided commentary on it in terms of whether they thought the timeframe was short or long term or somewhere in between.

Short/Near (Technocentrism)

- One piece of text was coded to this area from an interview with Company A. The interviewee stated that he didn't think the company had "ever had a very, very long term planning horizon" and operated to a "classic three/four/five year time horizon."

Multiscale (Sustaincentrism)

- Five organisations had text coded to this assumption. The text coded to this area captured the comments from interviewees regarding their more circumspect view of timescales from two different angles. The first being the constraints of their business where they are as long term as their "model allows" (Company D, Paul Ellis). Whereby within the limits of their operating environment or particular supply situation (Company A) they are as long term as they can be. The second perspective is with regards to their view that solving environmental issues are "generational issues" (Green Stationary Company) or it will take decades because similar to "cathedral builders [who] never saw the cathedral finished" (Ecover) these are the type of timeframes appropriate to the work.

Indefinite (Ecocentrism)

- Only one organisation had text coded to this area – Ecover; and it had the same paragraph coded to multiscale above. Whilst this may indicate interpretational fuzziness the same text was coded to this area as well as multiscale (sustaincentrism) because of the interviewee’s discussion that their work (the work of the organisation and its mission) maybe generational by way of the cathedral analogy but ultimately it had no end and they “will never see the end of it” in so much as there will be continual emphasis on making their products more environmentally benign.

A7.1.1.2 – Review of Coded Text (Sentences/Phrases), ‘Economic & Psychological’ Assumptions

It should be noted that the Gladwin, et al.,(1995) assumptions within the economic and psychological area, concern macro issues such as macroeconomic structures and global poverty alleviation. The interviews conducted were focused on the microcosm of the firm and these more macro level issues were not explored explicitly although they did come up in conversation. Thus there is as with all the coding to the paradigm framework a degree of interpretation and stretch. However, that stretch actually occurs in reverse for this set of assumptions (economic and psychological) and is actually a contraction, because the frame of reference is the organisation and its purpose and not the wider macro-economy. This contraction as with so much of this analysis implies health warnings. Nevertheless the interviewees’ organisations are arguably a microcosm of their wider views and thus point to their views on the wider economy.

Primary Objective

- 28 paragraphs from 19 interviews were coded to this assumptive grouping all under quality of life (sustaincentrism).
- Gladwin, et al., (1995) do not offer a specific definition or discussion of ‘quality of life’. However, by reviewing ‘quality of life’ within the thesis of technocentrism and the antithesis of ecocentrism where the primary objectives are offered up as ‘efficient allocation’ and ‘ecological integrity’.
- Given their earlier views on stewardship it is perhaps not surprising that the interviewees see the economy as something that should exist between ‘ecological integrity’ and ‘efficient allocation’. The text coded to this area reflected the text that had been summarised in a previous chapter as mission and money. For example, discussions of how the roles being offered in the organisations were not just a wage but also about longevity and opportunities (Company E). How the purpose of their business is to be sustainable environmentally, economically and socially (People Tree) through to how the money is a tool to deliver social and environmental change (Triodos Bank) and their product design should be for one hundred percent of the well being of humanity (Seventh Generation). Consequently the messages of the interview text are about balance and the use of money as a means as opposed to an end.

The Good Life

- Five paragraphs of text from five interviews were coded to this assumptive grouping all under post materialism (sustaincentrism).

- Gladwin, et al., (1995:893) do not offer a specific definition of 'post materialism'. However, they do state that "humans can learn to satisfy nonmaterial needs in nonmaterial ways and to reduce preoccupation with material, rather than intellectual or spiritual concerns." Given all that has been discussed previously and the *raison d'être* of the organisations it is not surprising that the individuals interviewed all had text coded to this area with none coded to the technocentric view (materialism) or the ecocentric view (antimaterialism). They are unlikely to be antimaterialist as this would mean that they undermine their own ontological underpinnings regarding their organisations. Likewise to be materialistic would be counter to their views as it would run counter to their general view of stewardship and care for the planet given that materialism is infused with a "secular-material view of the good life" where "individuals behave in self-interested and consistent manner to maximise their utility" (Gladwin, et al., 1995:884). Whilst there is an element of self-interest in the interviewees desire to help reduce environmental burden it is not self interest alone it is arguably altruistic selfishness and selfish altruism (Maturana & Varela, 1998).
- The actual text coded to this assumptive grouping captures the nature of the interviewees' views on materialism which is arguably post materialist in that it is about consuming with care. For example By Nature discuss how they don't want customers to buy more, rather they want them to make "ethically responsible choices in what they do buy" (By Nature, Graham Randles). Likewise, Company D highlights how their relationship with their customers is predicated not on customers purchasing more but "identification with what we're trying to achieve" (Company D, Paul Ellis). Lastly, the pragmatism inherent in the sustaincentric paradigm is captured by biome lifestyle who state that "in an ideal world you don't buy anything do you really? But that's not, that's not going to completely happen" (biome lifestyle, Alexandra Bramham).

Economic Structure

- Whilst Gladwin, et al., (1995) do not offer a specific definition of free market they do discuss the economy under technocentrism stating that "the optimal economic structure for satisfying wants and allocating resources most efficiently is *laissez-faire* capitalism" (ibid: 884). Where "goods and services are allocated to the most valued ends based upon the willingness to pay" (ibid: 894) and externalities are internalised if "cost effective" (ibid: 884). While being cost effective is clearly a relative notion, the interviewees were clear about trying to realise their missions while still succeeding in commercial terms. Thus they still needed to be cost effective in their operations. Even though the manner in which they pushed their costs to a minimum was not extreme as one might perhaps expect within conventional notions of *laissez faire* capitalism, as demonstrated by the examples of sufficiency, cost effectiveness was still apparent. Hence the coding to the green economy assumption was also coded to the free market assumption to ensure that this overlap was represented.
- With regard to the green economy, Gladwin, et al., (1995) do not offer an exact definition of green economy; nevertheless they do discuss how "a prosperous economy depends on a healthy ecology, and vice versa. A green and equitable economy is possible, in which ecological and social externalities are internalised. In such a case, markets are required to efficiently allocate

resources, but other policy instruments and economic incentives are required to place pre-emptive constraints on the pursuit of purely market criteria bearing upon natural resource use and satisfaction of human needs” (ibid: 893).

- These descriptions are about how the economy should be structured, something that the organisations did not offer particular views as opposed to discussing their own issues. Consequently coding to these areas is either literal where for example the words ‘free market’ have been used or illustrative at the organisational level where interviewees have discussed the purpose of the organisation and the pragmatism it requires in balancing its environmental, economic and social constraints.

Free Market (Technocentrism)

- Aside from the pieces of text also coded to the green economy assumption the one piece of text that was coded to this area that was not coded to the green economy assumption was from an interview with TerraCycle. The coding of the text was literal in the sense that the interviewee stated that the organisation had and was “staying completely inside the free market realm, but we’re, we’re doing it whilst still being incredibly environmentally friendly” (TerraCycle, Jon Beyer).
- The text was coded to this area because of the use of the term ‘free market’ by the interviewee. The meaning of the term by the interviewee was not probed during the interview nor was it appropriate to do so given the interview context.

Green Economy (Sustaincentrism)

- The text coded to this assumption was also coded to the free market assumption above. The text coded invariably discussed the context and the purpose of the organisation texts coded to this area include discussions of how the organisation is using trade to benefit the environment not just financial community (Belu, Reed Paget) but also needs to make sure it succeeds in financial terms and is thus cost effective.
- As with the free market area above a full discussion of the meaning of a green economy was not explored in the interviews nor was it appropriate given the focus of the research.

Role of Growth

- Twenty six pieces of text were coded to this assumptive grouping from twenty one interviews. As such all the interviews bar one had text coded to this area. Eight pieces of text and eight interviews were coded to good/necessary (technocentrism) and eighteen pieces of text from thirteen interviews were coded to mixed/modify (sustaincentrism) with none being coded to bad/eliminate (ecocentrism).
- In discussing growth with regards to the technocentric paradigm, Gladwin, et al., (1995:884) discuss that “growth is good, and more growth is better; growth enables governments to tax and raise resources for environmental protection and leads to less polluting industries and adoption of cleaner technologies”. Further “global growth and its trickle-down benefits are key to

- alleviating poverty, bettering the lives of the poor without sacrifices by the rich" (ibid: 884).
- Growth within the context of sustaincentrism, is discussed by Gladwin, et al., (1995) as follows; "The sustaincentric paradigm accepts that material and energy growth are bounded by ecological and entropic limits; growth cannot go on forever in a closed system." (ibid:893/894)
 - Lastly, although no text was coded to ecocentrism, the Gladwin, et al., (1995) discussion of growth within this paradigm is that "growth makes humanity and the rest of nature poorer, not richer" (ibid:887) and thus must be stopped and is bad or to be eliminated.

Good/Necessary (Technocentrism)

- Eight pieces of text from eight interviews were coded to this area, with six of these interviews also having text coded to mixed/modify (sustaincentrism) as well. The organisations that had text coded to this area saw their growth as being good because it fell into the following key areas;
 - Its allows them to do more in terms of social outcomes (People Tree, Triodos Bank)
 - It means that the organisations' products or services are replacing environmental bads (Company B, TerraCycle, Recycline)
 - It means that the company is not insignificant and by inference has made a statement (Company C)
 - It is good for the market (Company A)
 - It's just about us doing more (Pillars of Hercules)
- Further to the brief discussion above, it is self evident that a literal stance was taken to coding interviewees statements regarding growth, to this area. It is unknown whether the interviewees would agree or disagree with Gladwin, et al., (1995) full explanation of growth being good/necessary within the technocentric paradigm, however, the interviewees with text coded to this area were clear that they saw their own growth as being good/necessary.

Mixed Modify (Sustaincentrism)

- Eighteen pieces of text from thirteen interviews were coded to this area, with five of the interviews also having text coded to good/necessary (technocentrism). The text coded to this area reflected the more circumspect nature and qualifying statements that interviewees offered regarding their views on growth. Discussing how for example, they did not want to grow at all costs it had to be congruent with the purpose of the organisation (for example; biome lifestyle, By Nature, Company D, Suma, Seventh Generation, Triodos Bank) through to, how their growth has a mixed effect because its replacing environmental bads (for example; TerraCycle, Company B), to how growth is viable if the company is an example of how to do business (for example, howies, Green Stationary Company) and lastly to how, too much growth is just not a good thing (Ecover).

Trade Orientation

- Four pieces of text from four interviews were coded to this assumptive grouping.

- Gladwin, et al., (1995) discussion regarding trade orientation, like so many of their assumptions within the paradigms, is circumspect rather than exact. Within the broad realms of trade orientation when discussing technocentrism Gladwin, et al., (1995) state "free or unregulated trade increases economic efficiency through comparative advantage. Global economic integration and free mobility of capital across national borders maximise welfare" (ibid:884).
- Within sustaincentrism Gladwin, et al., (1995) state that "there is a recognition that trade may spatially separate the costs from the benefits of environmental and labour exploitation. Uncontrolled capital mobility may work to lower workers' remuneration and environmental health and safety standards" (ibid:894). As can be seen within the sustaincentrism description they do not state the word 'national' other than actually in the framework (paradigm table/schematic).
- As with so much of the coding to this framework the interviews were not designed to explore the individuals' views on international trade. However, four of the interviewees did offer views on trade as it pertained to their business area.

National (Sustaincentrism)

- Four pieces of text from four interviews (Beyond Skin, biome lifestyle, Suma and Company E) were coded to this area.
- Beyond Skin had text coded to this area because of the interviewee's discussion that eventually manufacturing would come back to the UK from Asia because its inherently unsustainable to transport over that distance and ultimately people will realise that "buying cheap that's at a price" (Natalie Dean, Beyond Skin, Founder) Whereas, Alexandra Bramham the founder of biome lifestyle discussed how her preference for the geographical locale of suppliers would be the UK, Suma outlined that international trade should not occur if a national alternative is available and lastly Eoin Cox the founder of Company E outlined how the whole rationale of his organisation was to use national resource and avoid unnecessary exporting.

Political Structure

- Seventeen pieces of text from were coded to this assumptive from fifteen interviews. With seven pieces of text from seven interviews coded to centralised (technocentrism), eight pieces of text (sentences/phrases) from six interviews to devolved (sustaincentrism) and two from two interviews to decentralised (ecocentrism).
- With regards to the commentary behind the centralised political structure under technocentrism Gladwin, et al., (1995) offer no insight, likewise for decentralised under ecocentrism and devolved under sustaincentrism. Nevertheless, it is consistent with their general framing of the paradigms that centralised, decentralised and devolved are assigned this way given that technocentrism is the thesis and ecocentrism the antithesis and sustaincentrism the synthesis. As with so much of the coding to the paradigm framework, the interviews were not designed to explore interviewees' views on the wider political structure. Consequently the coding to this assumptive grouping actually categorises the interviewees views on their own organisations and the structure within, whereby in discussing hierarchies they

had text coded to centralised and variations and nuances of this were coded to sustaincentrism and ecocentrism as discussed below.

Centralised (Technocentrism)

- Seven pieces of text from seven interviews were coded to this area. The organisations that had text coded to this area (BioRegional Group, Company B, Company C, Company D, Green Stationary Store, Revolve and Triodos Bank) were all basically offering the same narrative. Whereby they weren't a fan of hierarchies and aimed for a 'flat' organisational structure but ultimately in their view ultimately somebody has to be in charge and further people in the organisation expect somebody to be in charge.
- This dualism of somebody being in charge and it being expected arguably reflects the meta narrative of society. Whereby we want or desire to be autonomous individuals, whilst at the same time we expect an individual to hold responsibility. Thus the interviewees' discussion that they aimed to be as flat as possible in their organisational structures and tried to empower individuals represents entirely the right of no hierarchies and people making their own decisions with the wrong of excessive hierarchy. To reflect this tension within the interviewees' narrative, six of the interviewees also had text coded to devolved (sustaincentrism) below. The only organisation that didn't was Triodos Bank. Triodos Bank did not have text coded to this area because their commentary was that they had a flat management structure and the interviewee did not offer any further commentary regarding it to indicate a desire for greater devolution or an inherent tension. This does not mean that the interviewee would not wish for greater devolution, purely the text and interview recollection does not provide the evidence to support a coding under devolved (sustaincentrism).

Devolved (Sustaincentrism)

- Eight pieces of text from six interviews were coded to this area (BioRegional Group, Company B, Company C, Company D, Green Stationary Store and Revolve).
- The text coded was the same as that above for centralised (technocentrism) and as discussed above it was coded to the two assumptions of centralised and devolved to reflect the dualism and tension regarding hierarchies being undesirable yet necessary.

Decentralised (Ecocentrism)

- Two pieces of text from two interviews was coded to this area (Company D and seventh GENERATION). The text coded to this area was an elaboration on the comments from the interviewees regarding their organisations operating as regional units or the creation of factories in boxes respectively.
- Although upon exploration of this point this was a nascent thought, this was the closest any interviewee came to exploring a decentralised organisational model and the piece of text most congruent with the decentralised assumption.

A7.2 - Unique Source (Interview) Counts

The purpose of the following data display is to highlight the number of interviews (sources) that had interview text coded to any of the assumptions within the 'ontological and ethical' or 'economic and psychological' groupings of assumptions without breaking down the groupings by their ten constituent areas for each paradigm.

Table A7.3: Unique Sources Coded to the 'Ontological and Ethical' Assumption Grouping

Companies/Sources/ Organisations	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. belu			
2. Beyond Skin			
3. biome lifestyle		✓	
4. BioRegional		✓	
5. By Nature		✓	
6. Company A	✓	✓	
7. Company B		✓	
8. Company C			
9. Company D		✓	
10. Company E		✓	✓
11. Ecover		✓	✓
12. Green Building Store		✓	✓
13. Green Stationary Company		✓	
14. howies		✓	
15. People Tree			
16. Pillars of Hercules		✓	
17. Recycline		✓	
18. revolve		✓	
19. seventh GENERATION		✓	
20. Suma		✓	
21. Terra Plana		✓	
22. TerraCycle			
23. Triodos Bank			

This data display reveals that six interviews had no text coded to any of the assumptions within the 'ontological and ethical' grouping. From this researcher's perspective that six did not have text coded reveals little given the context of the interviews and the vagaries of semi-structured interviews and the stretch to fit the data to the framework as opposed to anything telling about the organisations where no coding occurred.

The data display also reveals that thirteen of the organisations were solely coded to the sustaincentric paradigm whereas four were coded to sustaincentrism and techno or ecocentrism. The spread of coding of an interviewees text into the other paradigms is to be expected when considering the Gladwin, et al., (1995) statement that the paradigms are "not closed or monolithic" and that they represent "broad

camps" (ibid:881). However, what is surprising is that so few of the companies had a spread into the other paradigms. A safe explanation for the lack of spread is the errors inherent in the human as an analyst and the interpretive stretch in matching the data to the framework. However, if this is put aside perhaps what it does demonstrate is that the interviewees are relatively compartmentalised and consistent in their ontological and ethical views. Further as concluded previously the majority of organisations interviewed are sustaincentric.

In dealing with the outliers, Company A, Ecover, Green Building Store and Company E;

- Company A's coding to technocentrism can be explained at a superficial level by their discussion of how they operate to short term time frames, something that could be expected given they are a subsidiary of a PLC. However, they are not the only subsidiary of a PLC, two other organisations are as well (howies and Ecover, with Ecover leaning towards ecocentrism) so this factor alone is not a fully satisfactory explanation, although arguably it is a less personal response than that which resulted in Ecover's coding being in the ecocentric paradigm (see next bullet point). However, separating the personal from the organisational view is an inherent issue for any social study of organisations when individuals are interviewed. Further, there is arguably little separation possible given that organisations are through one lens purely a coagulation of individuals operating to a culture (set of norms and values) and they do not leave themselves behind when they turn up to work.
- Ecover's leaning towards ecocentrism can be explained by the interviewee's commentary regarding his view of his work whereby he stated that "I have the same feeling towards the work I'm doing now, I will never see the end of it" (Peter Malaise, Ecover). Thus indicating a leaning towards a view of time and space scales which is indefinite (an ecocentric assumption). This is arguably a more personal comment rather than one that could be said to be reflective of the company, although how this could be validated is difficult to judge as it may be an inherent part of cultural norms of the organisation.
- Company E's coding to ecocentrism can be explained partly by the particular of their organisation. It is involved in the logging and cutting of trees, in this regard the interviewee highlighted how he saw himself "umbilically attached" to the land and trees and that he is just "part of the process" (Eoin Cox, Company E). Both personal statements which indicate a leaning toward the ecocentric assumptions of indissociation.
- Green Building Store's coding to ecocentrism occurred in the humans and nature assumption. The text reflected the commentary from the interviewee that the environment is part of their DNA rather than just being bolted on.

Table A7.4: Unique Sources Coded to the 'Economic & Psychological' Assumption Grouping

Companies/Sources/ Organisations	Technocentrism	Sustaincentrism	Ecocentrism
Economic & Psychological			
1. belu	✓	✓	
2. Beyond Skin		✓	
3. biome lifestyle	✓	✓	
4. BioRegional	✓	✓	
5. By Nature		✓	
6. Company A	✓	✓	
7. Company B	✓	✓	
8. Company C	✓	✓	
9. Company D	✓	✓	✓
10. Company E		✓	
11. Ecover	✓	✓	
12. Green Building Store	✓	✓	
13. Green Stationary Company	✓	✓	
14. howies	✓	✓	
15. People Tree	✓	✓	
16. Pillars of Hercules	✓	✓	
17. Recycline	✓	✓	
18. revolve	✓	✓	
19. seventh GENERATION	✓	✓	✓
20. Suma		✓	
21. Terra Plana	✓	✓	
22. TerraCycle	✓	✓	
23. Triodos Bank	✓	✓	

This data display reveals that all the organisations (interviews) had text coded to the 'economic and psychological' grouping. This is not surprising given the context and focus of the interviews conducted. Also, as can be seen all of the companies offered evidence compatible with sustaincentric assumptions again supporting the hypothesis. Further nineteen of the organisations demonstrated evidence compatible with technocentrism as well as sustaincentrism and one with all three paradigms. As discussed earlier this is not incompatible with the Gladwin, et al., (1995) view of the framework whereby it is not monolithic and the assumptions and paradigms are broad camps.

Furthermore, if as Gladwin, et al., (1995) argue technocentrism is the current paradigm it is not surprising that so many organisations leaned towards technocentrism, given it is arguably society's current meta narrative (indeed this is the stance taken by Gladwin, et al., 1995). The peculiarities of the leanings will be examined further when the individual organisations are discussed. However, at a

high level the leaning of the organisations towards technocentrism can be explained as follows.

First, that many of the companies saw their growth as being good and necessary in that it replaced existing products which were less environmentally benign. Thus they are arguably complicit with the technocentric view that growth is good and necessary at a basic and literal interpretation of this assumption's wording.

Second many of the organisations outlined how their organisation needed to succeed in financial terms and thus had to have an element of cost effectiveness – an attribute Gladwin, et al., (1995) ascribe to a technocentric assumption of free market.

Third, many of the organisations discussed their organisational structure as a conventional one of a hierarchy albeit one where they invariably said the hierarchal structure was relatively flat and they were reluctant leaders, who were the leaders because somebody has to be in charge. This type of discussion resulted in organisations having text coded to the political structure row of assumptions; with the elements of hierarchy, reluctant leadership and flat structure resulting in coding to the centralised assumption (technocentric) and the devolved assumption (sustaincentric). Thus this type of response from interviewees was coded to two assumptions rather than just one to represent the inherent tension in the response between an essence of disliking hierarchies and centralised control and trying to devolve but also arguing that they were appropriate and people expected them. Thus the responses are arguably in the middle of technocentrism and sustaincentrism. A rationale for this tension could be argued from the perspective that if as Gladwin, et al., (1995) state we are living in technocentrism now, then given the notion of bounded rationality it is to be expected that we expected hierarchies and central control. However, on the converse side we also arguably desire or want to be autonomous individuals. Thus the interviewees' responses are reflective of societal tensions. Lastly, it should be noted that an organisation discussing its organisational structure is an imperfect fit to the Gladwin, et al., (1995) intention regarding the assumptions under political structure where their intentions are more reflective of general political structures rather than the political structure of an organisation. Thus this is another example of how there is stretch in the analysis of the interviews to the framework.

Finally, the outliers in the data display are company D and seventh GENERATION which leans both towards technocentrism and ecocentrism. This is explained via these interviewees' discussions of creating regional units and factories in boxes.

A7.3 - Coding by Attributes - Counts

The interviews had attributes recorded about them which included whether the interviewee was male or female, the number of staff in the organisation, the business area of the organisation, the ownership structure of the organisation, whether the interview was conducted face to face or on the telephone, the business role of the individual and lastly the month the interview was conducted.

A7.3.1 Male/Female Attribute

In total there were eighteen interviews with men and five with women. In terms of data presentation in the table below, 13M, 3F represents the fact that thirteen male interviewees had text coded to a particular assumption along with three female interviewees.

Table A7.5: Interviews by Male/Female Attribute Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 2M	Heterarchical
5. Humans and nature	Disassociation	Interdependence 9M, 2F	Indisassociation 2M
6. Human role	Domination	Stewardship 10M, 3F	Plain member 1M
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1M	Multiscale 5M	Indefinite 1M
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 15M, 4F	Ecological integrity
2. The good life	Materialism	Post materialism 3M, 2F	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 13M,3F	Green economy 12M, 3F	Steady state
5. Role of growth	Good/necessary 7M, 1F	Mixed/modify 11M, 2F	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 2M, 2F	Bioregional
10. Political structure	Centralised 6M,1F	Devolved 5M, 1F	Decentralised 2M

Obviously, the interview sample with eighteen men was dominated by this gender. In reviewing this data display (Table A7.5) the presence of outliers or differences is key. There is little to be revealed from this display other than the fact that men dominated the interview sample.

A7.3.2 Size of Organisation Attribute

In terms of data presentation in the table below, T refers to organisations with 1-10 employees, S 10 to 50 employees, M 50 to 100 employees and L 100 to 200 employees.

Table A7.6: Interviews by No. of Staff Attribute Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchival 1S, 1M	Heterarchical
5. Humans and nature	Disassociation	Interdependence 3T,5S,1M,2L	Indisassociation 1T,1S
6. Human role	Domination	Stewardship 4T,6S,0M,3L	Plain member 1T
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1M	Multiscale 1T,2S,1M,1L	Indefinite 1L
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 5T,9S,3M,2L	Ecological integrity
2. The good life	Materialism	Post materialism 2T,3S	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 3T,9S,2M,2L	Green economy 3T,8S,2M,2L	Steady state
5. Role of growth	Good/necessary 5S,2M,1L	Mixed/modify 3T,5S,2M,3L	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 3S, 1L	Bioregional
10. Political structure	Centralised 2T,3S,1M,1L	Devolved 2T,3S,0M,1L	Decentralised 1S,1M

In reviewing this data display (Table A7.6) the presence of outliers or differences is key, however, there is little by way of anomaly revealed.

A7.3.3 Business Area of Organisation Attribute

In terms of data presentation in the table below, S refers to services, C to consumer goods and B to business and consumer goods.

Table A7.7: Interviews by Business Area of Organisation Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 1S, 1B	Heterarchical
5. Humans and nature	Disassociation	Interdependence 2S,6C,3B	Indisassociation 1C, 1S
6. Human role	Domination	Stewardship 2S,8C,3B	Plain member 1C
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1C	Multiscale 1S,2C,2B	Indefinite 1B
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 4S,11C,4B	Ecological integrity
2. The good life	Materialism	Post materialism 1S,2C,2B	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 4S,7C,5B	Green economy 4S,6C,5B	Steady state
5. Role of growth	Good/necessary 2S,5C,1B	Mixed/modify 2S,7C,3B	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 4C	Bioregional
10. Political structure	Centralised 3S,1C,3B	Devolved 2S,1C,3B	Decentralised 1S,1B

In reviewing this data display (Table A7.7) the presence of outliers or differences is key, however, there is little by way of anomaly revealed.

A7.3.4 Ownership Status of Organisation Attribute

In terms of data presentation in the table below, L refers to private, P to publicly quoted organisations, C to charity, co-operative and mutual.

Table A7.8: Interviews by Ownership Status Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchival 1C, 1L	Heterarchical
5. Humans and nature	Disassociation	Interdependence 7L,2P,2C	Indisassociation 2L
6. Human role	Domination	Stewardship 9L,2P,2C	Plain member 1L
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1P	Multiscale 2L,2P,1C	Indefinite 1P
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 14L,3P,2C	Ecological integrity
2. The good life	Materialism	Post materialism 3L,2C	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 11L,3P,2C	Green economy 10L,3P,2C	Steady state
5. Role of growth	Good/necessary 7L,1P	Mixed/modify 9L,2P,2C	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 3L, 1C	Bioregional
10. Political structure	Centralised 5L,0P,2C	Devolved 4L,0P,2C	Decentralised 1C,1P

In reviewing this data display (Table A7.8) the presence of outliers or differences is key. When reviewing the time/space scales assumptions; it is arguably of little surprise that a publicly listed company had text coded to the 'short/near' column especially as public companies are involved in three month time horizons as dictated by results disclosure to the stock market. However, what is surprising is that a quoted company had text coded to the ecocentric view of this assumption (time/space scales – indefinite). A rationale for this was explained earlier as the two organisations involved are Company A and Ecover, with Company A having text coded to technocentrism and Ecover to ecocentrism (see the commentary supporting Table A7.3).

A7.3.5 Telephone or Face to Face Interview Attribute

Out of the twenty three interviews, fifteen were face to face and eight were conducted on the telephone. In terms of data presentation in the table below, F refers to face to face and T to telephone interviews.

Table A7.9: Interview Sample by Telephone or Face to Face Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 1F, 1T	Heterarchical
5. Humans and nature	Disassociation	Interdependence 4T, 7F	Indisassociation 2F
6. Human role	Domination	Stewardship 4T, 9F	Plain member 1F
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1F	Multiscale 2T, 3F	Indefinite 1T
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 6T, 13F	Ecological integrity
2. The good life	Materialism	Post materialism 1T, 4F	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 6T, 10F	Green economy 5T, 10F	Steady state
5. Role of growth	Good/necessary 2T, 6F	Mixed/modify 6T, 7F	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 1T, 3F	Bioregional
10. Political structure	Centralised 7F	Devolved 6F	Decentralised 1F, 1T

In reviewing this data display (Table A7.9) the presence of outliers or differences is key. The pertinent delta that the display reveals is that all of the coding for the political structure set of assumptions came from face to face interviews. This is perhaps not unsurprising given the text coded to this area represented interviewees discussions regarding their organisational structure and leadership revealing some inherent tensions. To explore this area the extra time and personal connectivity that arises from a face to face interview allows this area to be explored more fully than a telephone interview would allow, whereby telephone interviews are invariably shorter and less personal because of the medium of communication.

A7.3.6 Role of Individual Interviewed Attribute

Given the low number of individuals in the categories outside of the founder, the data will be presented in terms of founder (F) and non founder (NF).

Table A7.10: Interviews by Role of Individual Interviewed (Founder/Non Founder) Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchival 2NF	Heterarchical
5. Humans and nature	Disassociation	Interdependence 7F,4NF	Indisassociation 2F
6. Human role	Domination	Stewardship 9F,4NF	Plain member 1F
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1NF	Multiscale 1F,4NF	Indefinite 1NF
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 11F,8NF	Ecological integrity
2. The good life	Materialism	Post materialism 3F,2NF	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 9F,7NF	Green economy 8F,6NF	Steady state
5. Role of growth	Good/necessary 3F,5NF	Mixed/modify 7F,6NF	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 3F, 1NF	Bioregional
10. Political structure	Centralised 4F,3NF	Devolved 4F,2NF	Decentralised 2NF

In reviewing this data display the presence of outliers or differences is key, however, there is little by way of anomaly revealed other than only one founder had text coded to the time/space scales assumptive row under multiscale (sustaincentrism). This is surprising and other than the vagaries of semi-structured interviews this researcher is at a loss in offering a rationale to explain the lack of founders in this whole category.

A7.3.7 Month of Interview Attribute

The interviews occurred over a period of months as outlined in the table below.

Table A7.11: Interview Sample by Month of Interview

Month	No. Of Interviews Conducted
Aug '07	5
Sep '07	4
Oct '07	8
Nov '07	5
Dec '07	0
Jan '08	1

The data presented in the table below uses the following code, A for august, S for September, etc.

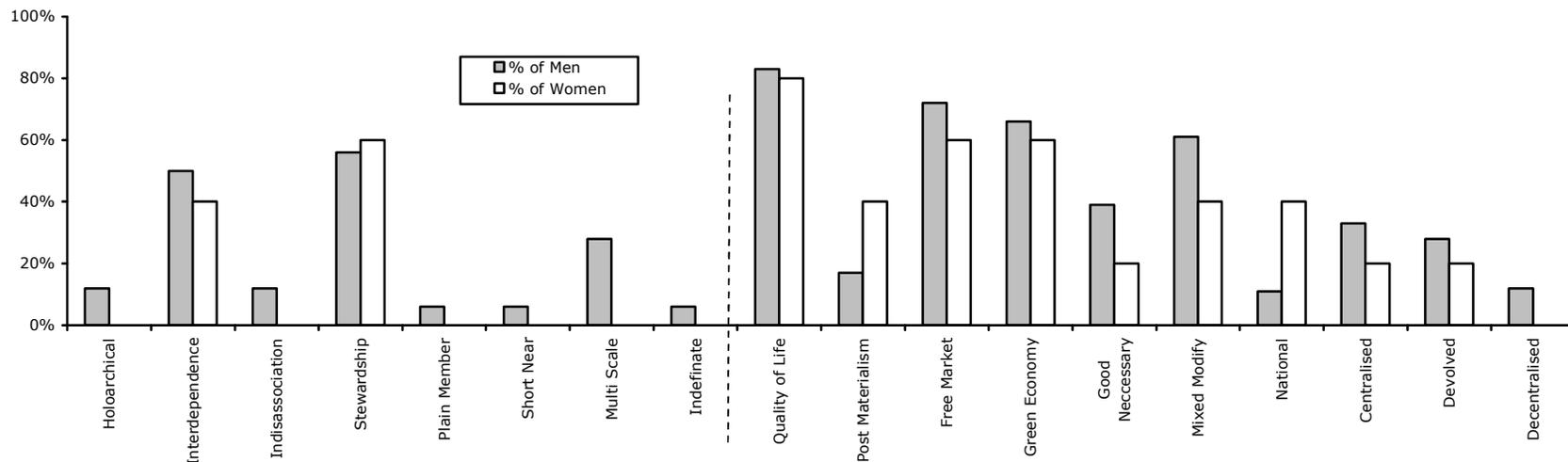
Table A7.12: Month of Interview Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 10, 1N	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1A,2S,50,2N,1J	Indisassociation 10,1J
6. Human role	Domination	Stewardship 2A,4S,40,2N,1J	Plain member 1J
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1A	Multiscale 1A,2S,10,1N	Indefinite 10
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 4A,3S,70,4N,1J	Ecological integrity
2. The good life	Materialism	Post materialism 1A,0S,20,2N	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2A,4S,70,3N	Green economy 1A,4S,70,3N	Steady state
5. Role of growth	Good/necessary 3A,2S,10,2N	Mixed/modify 3A,3S,30,4N	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 2A,1N,1J	Bioregional
10. Political structure	Centralised 2S,20,3N	Devolved 2S,20,2N	Decentralised 10,1N

A7.4 - Coding by Attributes: Percentages

Following the data display of the attributes by counts in the tables above in section A7.3 this same data is now presented as percentage charts. The percentages illustrate the percentage of respondents with that attribute out of the total sample that were coded to that assumption. So for example, if an assumption contained coding from three interviews with men and three interviews with women – this would mean that the assumption was split 50% to 50% between the male and female attributes. However, more pertinently it would illustrate that 17% of the men interviewed had text coded to this node compared to 60% of the women interviewed. This data display of the percentages relative to the total sample is what is presented in the figures below.

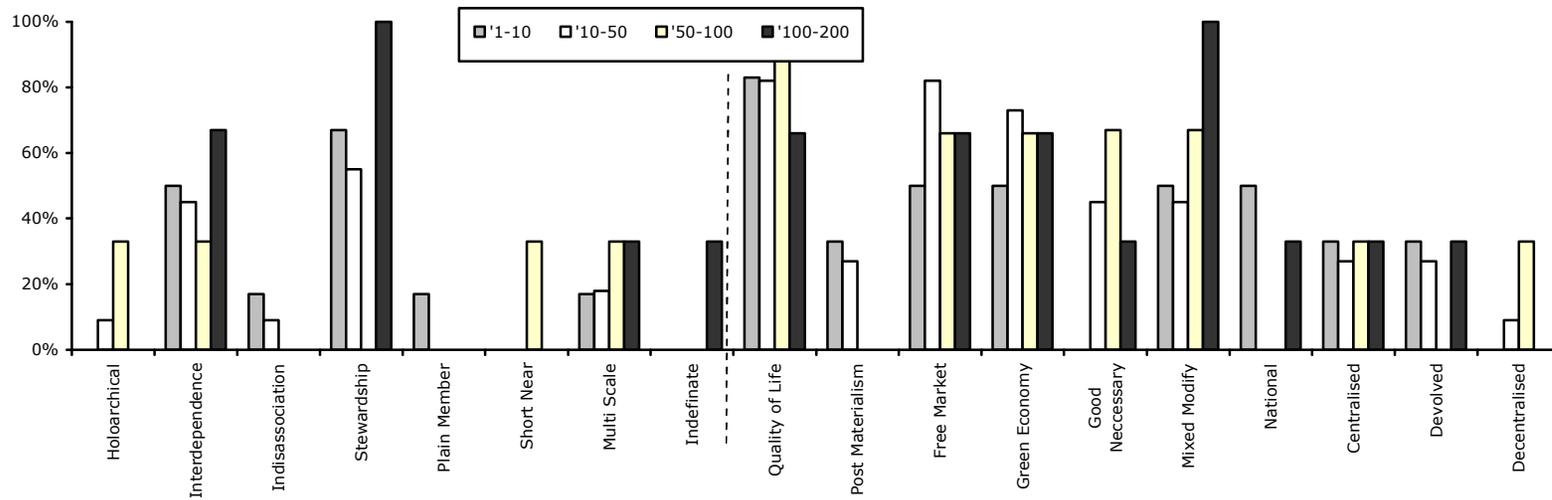
Figure A7.1: Male/Female Attribute Percentages of Sample against Assumptions



This data display reveals that the ontological and ethical assumption (holoarchical) was dominated by male responses with the economic and psychological assumptions (quality of life to decentralised) being more balanced. Further exposition of the text (Sentences/Phrases) coded to the assumptions (to be investigated later) may reveal any patterns or rationale for this. However, at this stage there is little that can be drawn from this given the vagaries of semi-structured interviews, the coding

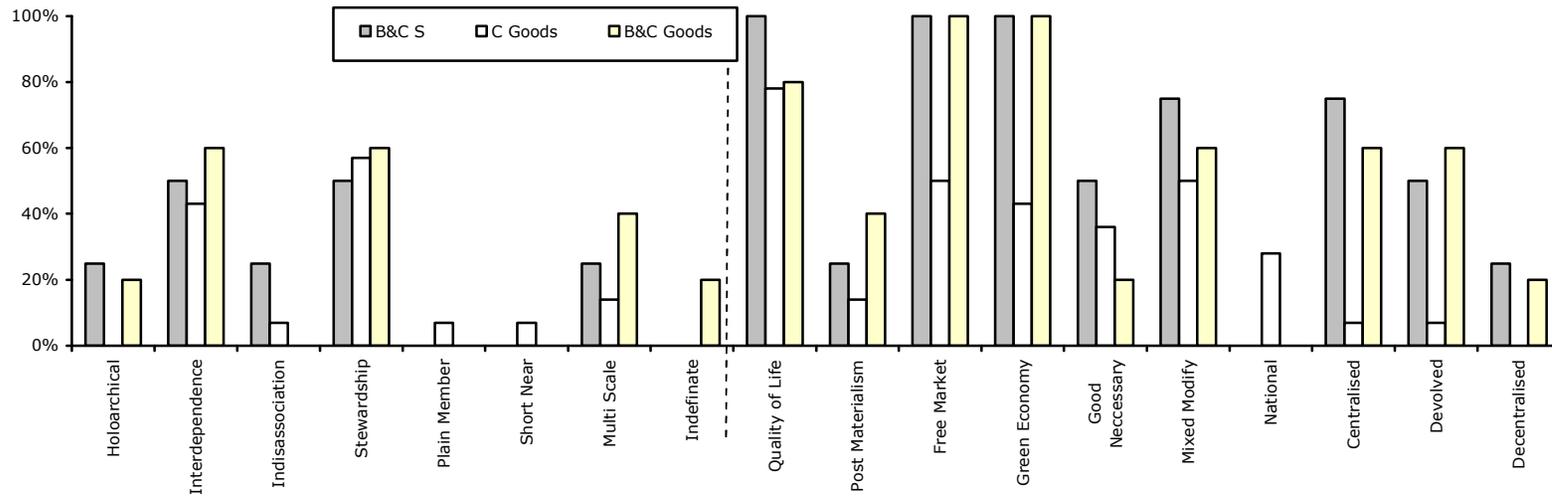
interpretation and the male bias of the sample; other than perhaps women wanted to focus the conversation on economics as opposed to wider world views.

Figure A7.2: Staff Numbers Attribute Percentages of Sample against Assumptions (Nodes)



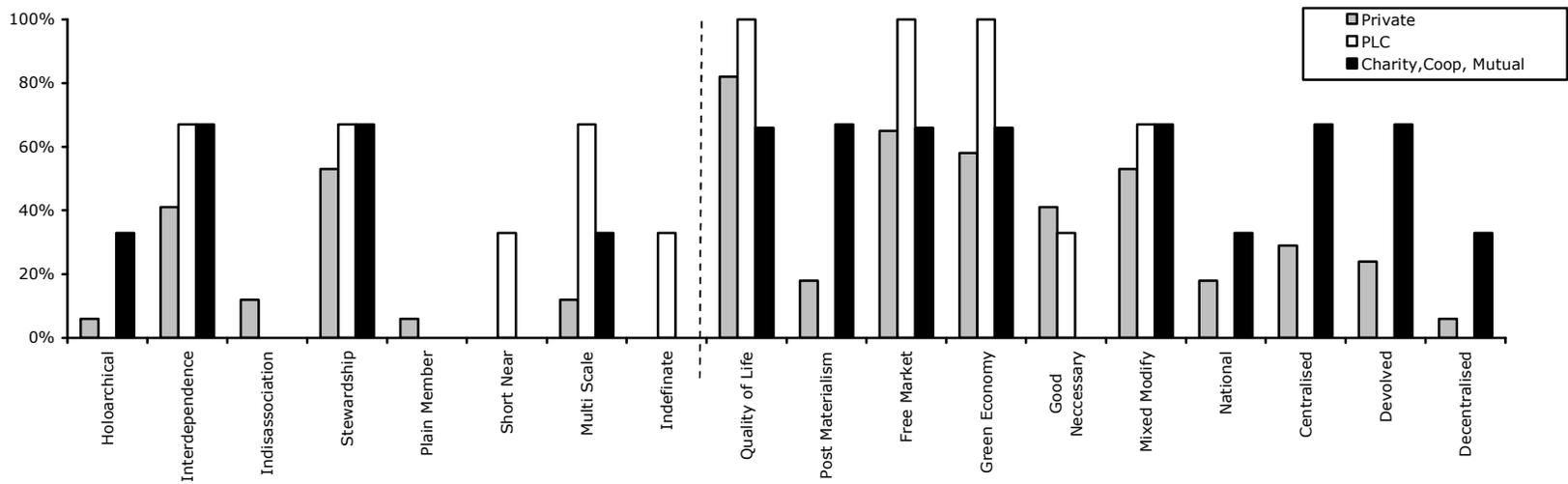
This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions.

Figure A7.3: Broad Business Area Attribute Percentages of Sample against Assumptions (Nodes)



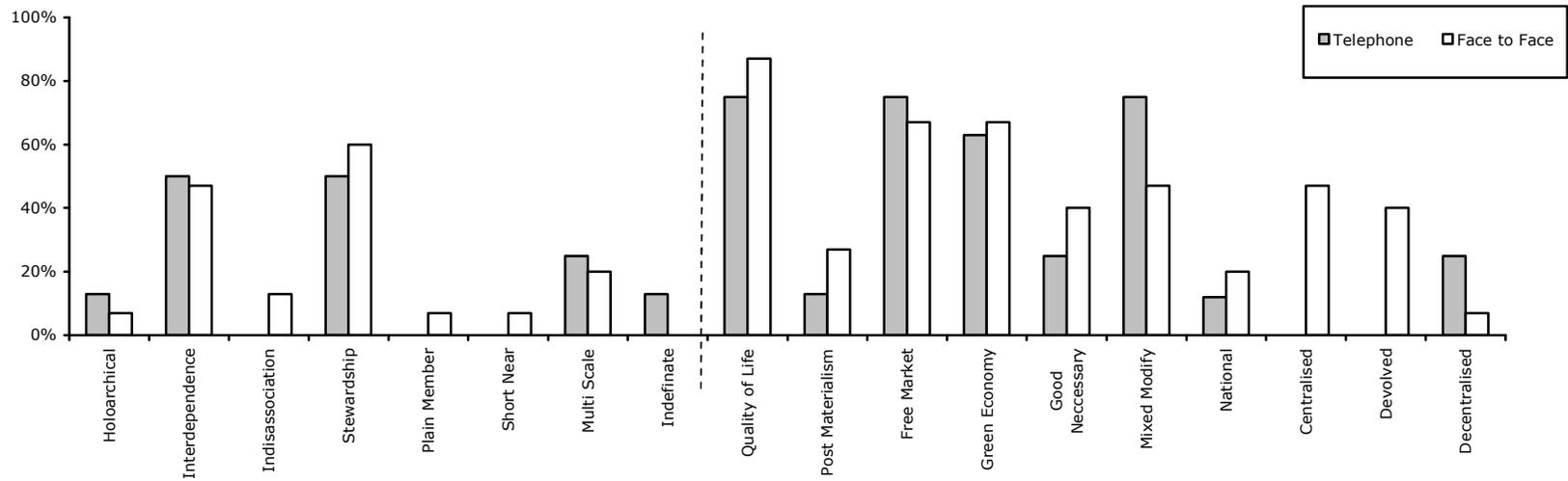
This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions.

Figure A7.4: Ownership Status Attribute Percentages of Sample against Assumptions (Nodes)



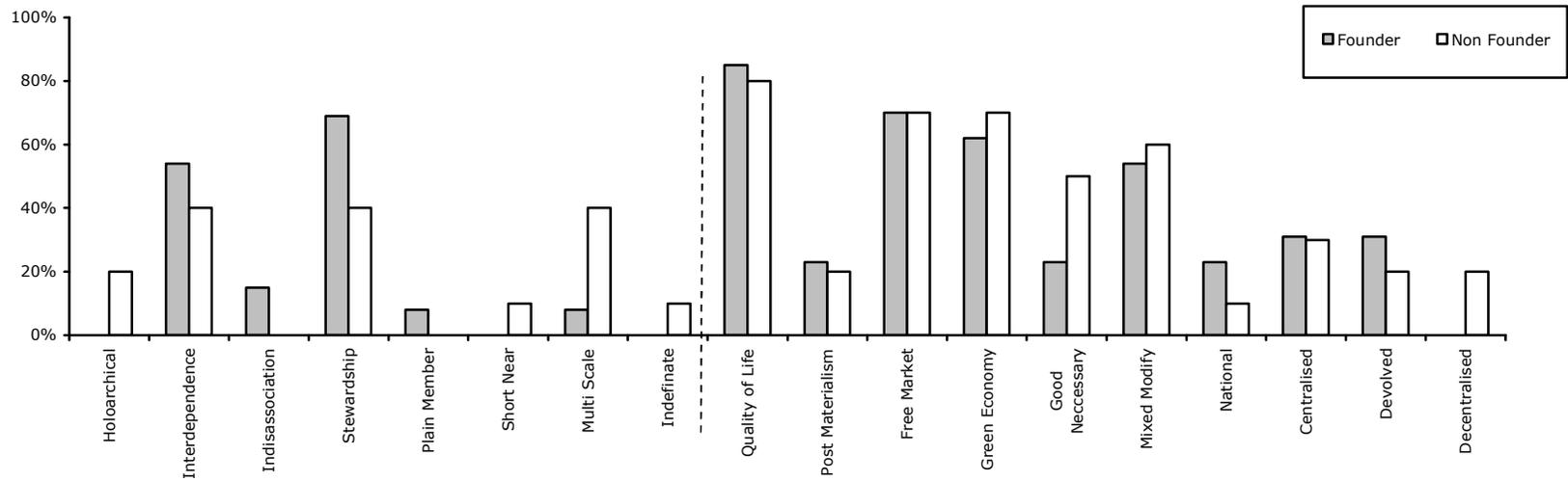
This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions.

Figure A7.5: Face to Face or Telephone Attribute Percentages of Sample against Assumptions (Nodes)



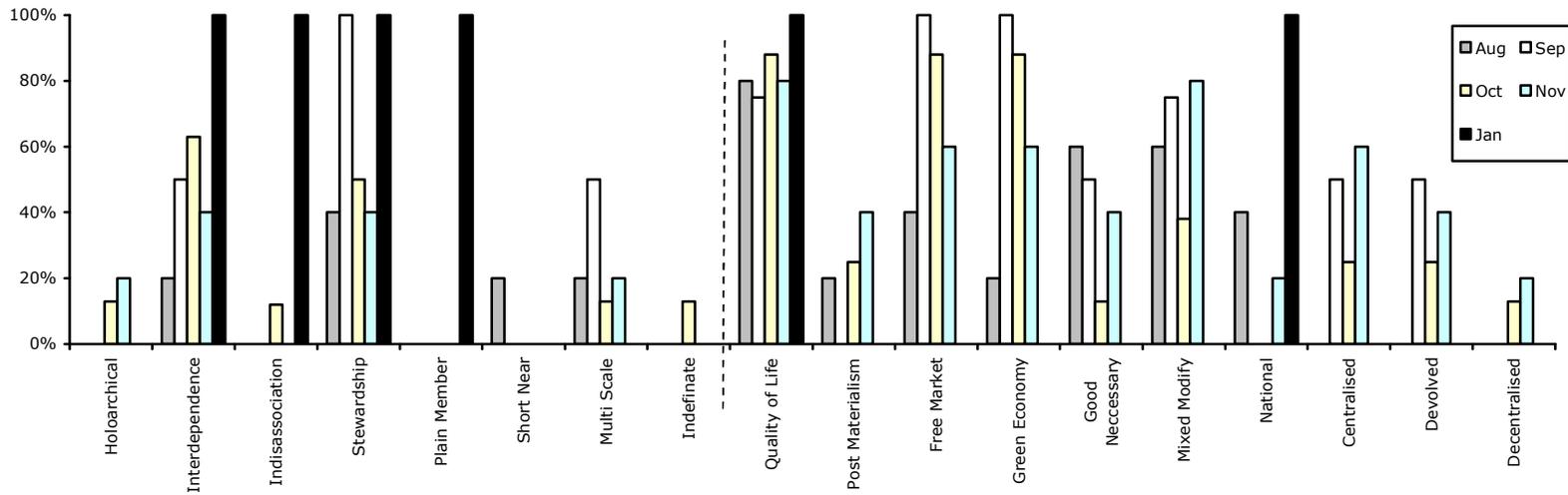
This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions, except for the prevalence of face to face interviews in the centralised, devolved and decentralised assumption nodes.

Figure A7.6: Role of Individual Interviewed Attribute Percentages of Sample against Assumptions (Nodes)



This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions.

Figure A7.7: Month of Interview Attribute Percentages of Sample against Assumptions (Nodes)



This data display reveals little in terms of key visual differences other than a relatively even split across the assumptions.

A7.5 Micro Analysis: Reviewing each Interview

A7.5.1 - belu

Table A7.13: No. of Pieces of Text (Sentences/Phrases) from belu Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 2	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2	Green economy 2	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

As can be seen belu had little of the interview coded. This occurred primarily because the interview was not recorded (permission was not provided) and hence no transcript is available, as such only interviewer notes are available from the interview and these are not extensive. The coded text for belu represented the commentary the interviewee offered regarding how the organisation is using trade to make money and redirect the flow of that money to environmental outcomes (green economy/free market) and lastly how he believes that self interest needs to be harnessed to encourage individuals to make wiser choices (primary objective).

A7.5.2 - Beyond Skin

Table A7.14: No. of Pieces of Text (Sentences/Phrases) from Beyond Skin Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 1	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Beyond Skin only had two pieces of text coded because much of the interview transcript was not appropriate nor could be stretched to have relevance to the paradigmatic framework. The two pieces of text coded reflected, first the interviewee's view that ultimately manufacturing will return to the UK because customers will understand there is an unnecessary environmental cost in having items made overseas (national). Second a piece of text regarding how individuals and the organisation are trying to take a more balanced in their views of what a low price actually means (primary objective).

A7.5.3 - biome lifestyle

Table A7.15: No. of Pieces of Text (Sentences/Phrases) from biome lifestyle Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism 1	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 1	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

biome lifestyle coded text reflected first, the interviewee's views that it is everyone's responsibility to take care of the planet (stewardship). Second that ideally people want things to be made that are not machine made and anonymous but handmade and all that that implies (quality of life). Third how ideally consumers should not buy anything because of its environmental burden although that is not a realistic outcome (post materialism). Fourth, how the company tries to balance environmental and economic concerns (green economy/free market). Fifth, how they try and balance growth initiatives with an understanding of their environmental impact (mixed/modify). Sixth and lastly, how ideally the organisation would source from UK suppliers (national).

A7.5.4 - BioRegional

Table A7.16: No. of Pieces of Text (Sentences/Phrases) from BioRegional Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism 1	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved 1	Decentralised

BioRegional's coded text reflected first their view that the world needs to be shared not just equitably between people but also between wildernesses and nature, thus reflecting their ethos of 'One Planet Living' – text coded to 'interdependence.' Second within the same paragraph how the global we needs to learn how best to allocate the planets resources to all its biota (stewardship). Third, how they thought individuals need to consider their consumption (post materialism). Fourth, how they wanted to earn a fair wage rather than just maximise their returns and their organisation was about a balance (primary objective). Fifth, how they monitor their environmental impact in what they do and that informs them but they also need to make sure they are commercially viable (green economy/free market). Sixthly and lastly, how they have a flat management structure with people empowered to be leaders but at the same time the sense that people in the organisation also want to be led (centralised/devolved).

A7.5.5 - By Nature

Table A7.17: No. of Pieces of Text (Sentences/Phrases) from By Nature Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism 1	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

By Nature's coded text reflected first that they saw themselves as an integral part of the land but they needed to balance this with the fact they operated in an urban environment (interdependence). Second that they were trying to persuade people via their offerings to make more environmentally responsible choices in their purchasing habits (post materialism and primary objective). Third and lastly, how they want to grow to create more change but they don't want to encourage growth per se (mixed/modify).

A7.5.6 - Company A

Table A7.18: No. of Pieces of Text (Sentences/Phrases) from Company A Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near 1	Multiscale 1	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Company A's coded text reflected first their commentary regarding how they plan to two/three year timeframes (short/near) but in one aspect of their business, the supply side, they plan to longer time frames because of the particular dynamics of that relationship (multi scale). Second, how their customers expect them to do the right thing (primary objective) and within the context of the conversation that was not about just making money. Third and lastly how they saw their continued growth as a good thing (good/necessary).

A7.5.7 - Company B

Table A7.19: No. of Pieces of Text (Sentences/Phrases) from Company B Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved 1	Decentralised

Company B's coded text reflected first their view that there are no divisions between society, the environment and economics, they all interrelate (interdependence). Second that they agreed that humanity had a responsibility of stewardship. Third, they saw the organisation's role as generating money but using it for environmental outcomes (primary objective). Fourth, because they have considered selling products to enable greener outcomes and they need to ensure they succeed commercially (green economy/free market). Fifth because they see their growth as being good as it replaces environmental bads although growth should not be pursued at all costs (good/necessary and mixed/modify). Sixthly and lastly how they have a flat organisational structure and aim to empower individuals but at the same time view that individuals want to be lead (centralised/devolved).

A7.5.8 - Company C

Table A7.20: No. of Pieces of Text (Sentences/Phrases) from Company C Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
3. The good life	Materialism	Post materialism 1	Antimaterialism
4. Human nature	Homo econimus	Homo sapient	Homo animalist
5. Economic structure	Free market 1	Green economy 1	Steady state
6. Role of growth	Good/necessary 1	Mixed/modify	Bad/eliminate
7. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
8. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
9. Discount rate	High/normal	Low/complement	Zero/inappropriate
10. Trade orientation	Global	National	Bioregional
11. Political structure	Centralised 1	Devolved 1	Decentralised

Company C's coded text reflects first, their view that they want customers to make more responsible choices in their purchasing habits (post materialism). Second, how the business is about fulfilling ideas not making money (primary objective). Third, how they want to succeed environmentally but they also have to succeed commercially (green economy/free market). Fourth how they saw their growth as being a good/necessary thing as it allowed them to make a bigger impact (good/necessary). Fifthly and lastly, how the organisation is trying to balance delegation with control (centralised and devolved).

A7.5.9 - Company D

Table A7.21: No. of Pieces of Text (Sentences/Phrases) from Company D Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 1	Heterarchical
5. Humans and nature	Disassociation	Interdependence 4	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale 1	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism 1	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 2	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved 3	Decentralised 1

Company D's coded text reflects first, their view that all elements of the system are equally important in ensuring the system works (holoarchical). Second, how they consider every aspect of how they interface with the environment and the environment for them is not just a category (interdependence). Third, how they plan as far ahead as the various aspects of their business model allow (multiscale). Fourth, how they want their relationship with customers not to be about continually selling more products (post materialism). Fifth, how they constantly try and reinforce the idea they are not around simply to make money (primary objective). Sixthly, how they don't want to grow at all costs but only in congruent (to the mission) ways (mixed/modify). Seventhly and lastly, how they have a classic organisational structure, which is as flat as they can make it, they try and empower and they have explored splitting the organisation into regionalised units without necessarily having centralised controls (centralised, devolved, decentralised).

A7.5.10 - Company E

Table A7.22: No. of Pieces of Text (Sentences/Phrases) from Company E Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation 2
6. Human role	Domination	Stewardship 2	Plain member 1
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 3	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 1	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Company E's coded text reflects first, the interviewee's commentary that they see themselves as an inherent part of their supply chain and no different to other raw materials as well as seeing themselves as being "umbilically attached" to it and having responsibility for it (interdependence/indisassociation/stewardship/plain member). Second, how they saw the organisation as not just offering a wage but also opportunity and how they wanted the organisation to have the right balance in turnover, people and sustainability and it was not about maximising (quality of life). Third and lastly, how the raison d'être for the organisation was to demonstrate that hard wood was available in Scotland and did not need to be imported (national).

A7.5.11- Ecover

Table A7.23: No. of Pieces of Text (Sentences/Phrases) from Ecover Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale 1	Indefinite 1
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 3	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Ecover's coded text reflected first, how we do not need to reject modernity and its affordances but we need to understand the impacts of our choices (interdependence). Second, how we need to find the best way to resolve issues and accept compromise (stewardship). Third, how the work of the organisation is both intergenerational and never ending (multi scale and indefinite). Fourth, how businesses need to not just consider monetary outcomes but other outcomes of their actions (quality of life). Fifth, how they see the economy as something that should be balanced but they have to succeed in commercial terms (green economy/free market). Sixth, how they do not think it is appropriate for the organisation to continually grow it needs to find an appropriate size (mixed/modify).

A7.5.12 - Green Building Store

Table A7.24: No. of Pieces of Text (Sentences/Phrases) from Green Building Store Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation 1
6. Human role	Domination	Stewardship 2	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 2	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Green Building store's coded text reflects, that they saw the environment as part of their DNA (humans and nature). Further they saw their role as being one where humanity has a duty of care (stewardship). Third, how they are not just operating the organisation to make money as if they were they would choose another business (primary objective) but that they also need to succeed in commercial terms (green economy/free market).

A7.5.13 - Green Stationary Company

Table A7.25: No. of Pieces of Text (Sentences/Phrases) from Green Stationary Company Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship 2	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale 1	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved 1	Decentralised

Green Stationary Company's coded text reflects first, that they put it down to a responsibility on all humanity to work out how to share the earth's resources equitably and how we should all live together (stewardship). Second, that they saw the development of environmental issues and the realisation of solutions as a generational issue (multi scale). Third, they aim to provide products that are an improvement on current choices but commercially viable (green economy/free market) and how they would like the business to grow enough so that it becomes a model for change, but that does not equate with it being excessively large (mixed/modify). Fourth and lastly, how the organisation tries to ensure that processes are democratic in that everyone has their say but ultimately the founder (the interviewee) makes the decisions (centralised/decentralised).

A7.5.14 - howies

Table A7.26: No. of Pieces of Text (Sentences/Phrases) from howies Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 3	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

howies coded text reflects first, the interviewee's view that humanity has to work with the planet and accept it will just take from it but the point is how to mediate that (interdependence/stewardship). Second, how in following their beliefs and assumptions rather than money that have ultimately been more successful (primary objective). Third, they view what they are doing as something that should be normal and not different and hence the economy should be green and commercially viable (green economy/free market). Third and lastly, how they recognise growth is also a problem if they have too much of it because they become part of the problem (mixed/modify).

A7.5.15 - People Tree

Table A7.27: No. of Pieces of Text (Sentences/Phrases) from People Tree Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 3	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify 2	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

People Tree's coded text reflects first, how they see their purpose as not only economic but also social and environmental outcomes (quality of life). Second how they see their growth as being good because it enables them to do more but at the same time it needs to be measured growth (good/necessary/mixed modify).

A7.5.16 - Pillars of Hercules

Table A7.28: No. of Pieces of Text (Sentences/Phrases) from Pillars of Hercules Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify 2	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Pillars of Hercules's coded text reflects first, that they felt humanity needs to treat the planet with respect and work with it (interdependence/stewardship). Second how they formulate their principles and from there work out how they make money (primary objective). Thirdly and lastly, how they see their growth as being good but that growth needs to be a measured growth (good/necessary and mixed/modify).

A7.5.17 - Recycline

Table A7.29: No. of Pieces of Text (Sentences/Phrases) from Recycline Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale 1	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2	Green economy 2	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Recycline's coded text reflects first, that they see part of the purpose of their organisation to reverse industrial pollution (stewardship). Second, how the organisation takes a three to five year approach and a ten year approach to its business (multi scale). Third, how what they try and ensure with their products that they and their customers take responsibility for products at the end of their life so it is not just about money (primary objective). Fourth, how they are trying to include the cost of externalities in their products by demonstrating new product offerings but they have to be cost effective (green economy/free market). Fifth and lastly, how they see the fact that the more toothbrushes they sell as being a good thing as it encourages recycling (good/necessary).

A7.5.18 - revolve

Table A7.30: No. of Pieces of Text (Sentences/Phrases) from revolve Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 3	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2	Green economy 2	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved 1	Decentralised

revolve's coded text reflects first the interviewee's view that we need to work with the planet and be able to put something back (interdependence/stewardship). Second, how they aim to balance the environmental concerns and personal concerns with the organisation's desire to seek profit (quality of life). Third how little can be achieved environmentally without a commercial mind (green economy/free market). Fourthly and lastly, how they see a tension that are continually cognisant of, of trying to ensure everyone has their say yet there is leadership (centralised/devolved).

A7.5.19 - seventh Generation

Table A7.31: No. of Pieces of Text (Sentences/Phrases) from seventh Generation Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical 2	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 1	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy 1	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised 1

seventh Generation's coded text reveals first, their view that the organisation needs to engage with systems thinking (holoarchical) and that it sees its relationship as interdependent with nature. Second, that the question the organisation needs to ask of itself is not profit but whether they operate for one hundred percent of wellbeing (quality of life). Thirdly, challenging themselves regarding how do they operate and grow in manner that is congruent to their purpose and avoid unnecessary tension (mixed/modify) but they also need to be commercially viable (green economy/free market). Lastly, how they have considered growing in a decentralised manner via factories in boxes.

A7.5.20 - Suma

Table A7.32: No. of Pieces of Text (Sentences/Phrases) from Suma Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market	Green economy	Steady state
5. Role of growth	Good/necessary	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National 1	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Suma's coded text reflects how first they see themselves as having responsibility to act correctly in all that they do (stewardship). Second, that they have a preference for national trade (national). Third and lastly, how they evolve as a business balancing economic and ecological forces rather than pursuing growth per se (mixed/modify).

A7.5.21 - Terra Plana

Table A7.33: No. of Pieces of Text (Sentences/Phrases) from Terra Plana Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence 1	Indisassociation
6. Human role	Domination	Stewardship 1	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2	Green economy 2	Steady state
5. Role of growth	Good/necessary	Mixed/modify	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

Terra Plana's coded text reveals first, the interviewee's view that humanity is part of the planet and we are responsible for resolving environmental issues (interdependence and stewardship). Second and lastly, how they try to balance environmental outcomes with the requirement to be economic in an economic world (green economy/free market).

A7.5.22 - TerraCycle

Table A7.34: No. of Pieces of Text (Sentences/Phrases) from TerraCycle Coded to a Constituent Assumption (Scientific and Technological Assumptions deleted as no coding in this section)

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 1	Green economy	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised	Devolved	Decentralised

TerraCycle's coded text reveals that first they saw themselves as operating in the free market (free market). Second, that they saw no limits to their growth within the model of their products being a more environmentally benign choice (good/necessary and mixed/modify).

A7.5.23 - Triodos Bank

Table A7.35: No. of Pieces of Text (Sentences/Phrases) from Triodos Bank Coded to a Constituent Assumption

Key Assumptions	Technocentrism	Sustaincentrism	Ecocentrism
Ontological & Ethical			
1. Metaphor of earth	Vast Machine	Life support system	Mother/web of life
2. Perception of earth	Dead/passive	Home/managed	Alive/sensitive
3. System composition	Atomistic/parts	Parts and wholes	Organic/wholes
4. System structure	Hierarchical	Holoarchical	Heterarchical
5. Humans and nature	Disassociation	Interdependence	Indisassociation
6. Human role	Domination	Stewardship	Plain member
7. Value of nature	Anthropocentrism	Inherentism	Intrinsicism
8. Ethical grounding	Narrow homocentric	Broad homocentric	Whole earth
9. Time/space scales	Short/near	Multiscale	Indefinite
10. Logic/Reason	Egoist-rational	Vision/network	Holism/spiritualism
Economic & Psychological			
1. Primary objective	Efficient allocation	Quality of life 2	Ecological integrity
2. The good life	Materialism	Post materialism	Antimaterialism
3. Human nature	Homo econimus	Homo sapient	Homo animalist
4. Economic structure	Free market 2	Green economy 2	Steady state
5. Role of growth	Good/necessary 1	Mixed/modify 1	Bad/eliminate
6. Poverty alleviation	Growth trickle	Equal opportunity	Redistribution
7. Natural capital	Exploit/convert	Conserve/maintain	Enhance/expand
8. Discount rate	High/normal	Low/complement	Zero/inappropriate
9. Trade orientation	Global	National	Bioregional
10. Political structure	Centralised 1	Devolved	Decentralised

Triodos Bank's coded text reveals first, that they want to ensure integrity in all they do and for their narrative to not just be about growth or money and second how they use money to realise environmental/social outcomes rather than an end in itself (quality of life). Third how they see their role in the economy and themselves as an organisation that balances environmental, social and economic tensions (green economy/free market). Fourth, how growth enables them to do more (good/necessary) but at the same time growth must not ruin their integrity (mixed/modify). Fifthly and lastly how they have a flat but hierarchal structure in their organisation (centralised).

Appendix 8

Appendix to support Chapter 8

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A8.1 – Notes on Actor-Network Theory (ANT) Accounts

The following table (Table A8.1) attempts to capture some of the 'rules' regarding creating an ANT account. This table has been formulated from a variety of sources as indicated and should be used by the reader as support material when reading chapter eight of the thesis. Following this is a second table (Table A8.2) that attempts to describe some of ANT terms, again, these terms and their description has been collated from a variety of sources as indicated. These terms are offered as ANT has tried to develop a neutral, symmetrical language that it is congruent with its analytical stance (Ivakhiv, 2002)

Please note that neither of these tables is definitive, rather those 'rules' and terms deemed pertinent to this research study are included. For a comprehensive account of ANT and its rules and definitions, readers are advised to refer to, in the first instance: Latour, B (2005) *Reassembling the Social: An Introduction to Actor-Network Theory* Oxford: Oxford University Press. Lastly please note that following the two tables there is another section, section 8.1.1 which highlights Callon's (1986) four stage process.

Table A8.1 : Creating ANT Accounts – Some 'Rules'

Area	'Rule'
An Account	<ul style="list-style-type: none"> • Because within ANT everything is reduced to a relational field with no beginning or end, in short everything is a performance – work, movement and flow should be stressed in an ANT account (Latour, 2005) • "Thus analysis of ordering struggle is central to actor-network theory" (Law, 1992:5) • The core of the ANT approach is with how actors and organisations mobilise, juxtapose and hold together the bits and pieces out of which they are composed and create a coherent punctualised actant (Law, 1992) • If something needs explaining the description is not 'thick' enough, the full cost of travel has not been paid (Latour, 2005). "Explanation emerges once the description is saturated" (Briers & Chua, 2001:243 citing Latour (1991:129)). Hence ANT has been referred to as "slowciology" (Latour, 2005:221). Where the researcher is like a car driver converting to hiking and taking it one step at a time. • The emphasis in an ANT account is "recording not filtering out, describing not disciplining" (Latour, 2005:55)
Global and Local	<ul style="list-style-type: none"> • No place dominates enough to be global or is self contained enough to be local (Latour, 2005) – Wall Street may be said to be global but its reach is only as far as its numbers are used in transactions. • ANT ignores macro and micro divisions, the network of the computer, printer

Area	'Rule'
	and the internet to name just a few components enables a reader's reluctance to read a text to be overcome (Law, 1992).
Groups	<ul style="list-style-type: none"> • The researcher defines the group and the study of those groups makes those groups exist (Latour, 2005)
Hierarchy	<ul style="list-style-type: none"> • ANT does not say that hierarchies don't exist. Rather that the full cost has to be paid. A hierarchy can't just be assumed, as if the hierarchy can't be described then the full cost of description has not been paid. (Latour, 2005)
Inclusion of non human in the analytical frame	<ul style="list-style-type: none"> • This does not mean things have intentionality, rather it means that things can influence (Latour, 2005; Steen, et al., 2006). In other words the focus is on action and a central concern of ANT is ordering (Law, 1992) • Most of the components of a scene are not brought their by the individual (Latour, 2005) • Nature and social are not discrete or alternatively cultures and ecologies are not "some essential bounded wholes but at best only analytically distinguishable moments within the fluid activity of network building" (Ivakhiv, 2002:399) • ANT explores the strategies which generate and are generated by objectness (Law, 2000) • Individuals are important but not in isolation from the relations and connections that make them purposeful (Steen, et al., 2006)
Isotopic, Synchronic, Synoptic, Isobaric	<ul style="list-style-type: none"> • Interactions are not isotopic – ie what is acting at the same moment is coming from many other places (Latour, 2005) • Interactions are not synchronic – not all interactions are of the same age or pace (Latour, 2005) • Interactions are not synoptic – not all of the participants are visible at any given point (ie wooden desk is not part of the lecture until it is pointed out and used) (Latour, 2005) • Interactions are not isobaric – some are pressing to be heard, others are part of the background – if a microphone breaks it moves from being an intermediary to a mediator (Latour, 2005)
The Level of Analysis	<ul style="list-style-type: none"> • In discussing his analysis of the Portuguese merchant fleet in the 15th century, Law (2000) outlines that analysis can be done at different levels of scale: For instance a vessel can be imagined as a network or the magnification can be turned up to focus on the navigational system. Or alternatively the magnification can be turned down to look at the "Portuguese imperial system as a whole (Law, 2000:3)
Notes on the Production of ANT Accounts from McLean and Hassard (2004).	<p>Critical Notes on the Production of ANT Accounts (McLean & Hassard, 2004)</p> <ul style="list-style-type: none"> • Inclusion/Exclusion of Actors <ul style="list-style-type: none"> ○ The investigative work should be directed at contextualising the specific event – Follow the actors and stop when the contextualisers stop

Area	'Rule'
<p>Please note these points are also reproduced in O'Connell, et al., (2009)</p>	<ul style="list-style-type: none"> ○ However are the boundaries of a project clear or do the connections just get flimsier, but also undoubtedly analysts engage in a process of ordering, sorting and selection ○ Difficulty might be operating to a "conventional...ontology and a traditional mode of social science accounting" (McLean & Hassard, 2004:501) ○ Accounts may focus on the big and powerful as they act but at the same time this should help to "debunk the idea that they are different to ourselves" (McLean & Hassard, 2004:501) – Further should also look at the victims not just the heroes ○ Ultimately however, the analyst engages in a "practice of ordering, sorting and selection" (McLean & Hassard, 2004:500) • Treatment of Humans and Non-humans <ul style="list-style-type: none"> ○ The difficulty is that the symmetry between the human and the non-human is in the hands of the analyst – would not complete symmetry require an account from the non-human – but this misses the point, as within ANT, the social life cannot happen without the non-human ○ Strive to be agnostic and not privilege any particular point of view (ibid:503). This then leads to a difficulty of doing historical accounts as how can other times be represented, re Law (2000) study of Portuguese vessels and the likely inclusion of spirits and gods as actors that are not discussed by Law (2000). ○ Be pragmatic – understand those designing and using the system and the set of analytical questions derived from the concerns of the analyst. Thus the difficulty of historic accounts, as the other is not only other in place but also in time. • The Nature of Privileging and Status <ul style="list-style-type: none"> ○ By ascribing the non-human as being an actor/actant, is there a danger of privileging them beyond that which they should be ascribed? – However, one of the key points with ANT is to avoid differences and distinctions, see everything as effects or outcomes not given in the order of things and accept everything as uncertain • The Handling of Agency and Structure <ul style="list-style-type: none"> ○ With particular relevance to broader societal structures, this is an area that ANT is intended to show does not exist – hence this is in many respects a false concern of ANT • The Process of Heterogeneous Engineering <ul style="list-style-type: none"> ○ With particular relevance to the failure to examine in detail the moral and political issues underlying the technologies studied in ANT accounts. The key with ANT is not to transcend the analysis but to focus on the analysis and as such view power as an effect not a cause. Through this the explanation emerges from a saturated

Area	'Rule'
	<p style="text-align: center;">description and judgments can be taken.</p> <p>Thus the challenge for ANT researchers is to "produce accounts that are sophisticated yet robust enough to negate the twin charges of symmetrical absence or symmetrical absurdity" (McLean & Hassard, 2004:516).</p>

Table A8.2 : ANT Terms – Some Descriptions

Term	Description
Actant	<ul style="list-style-type: none"> • To break away from the influence of figurative sociology, ANT uses the term actant (Latour, 2005). • This term is more neutral than the term actor (Castree 2002; Ivakhiv, 2002; McLean & Hassard, 2004) • This term is used to reinforce that "agency is a relational effect generated by interacting components whose activity is constituted in the networks of which they form a part" (Castree, 2002:121) • An actant can be at many levels – an institution, an individual, a country, a thing (Law, 2000)
Actor	<ul style="list-style-type: none"> • An actor reveals where the plan is hatched – it's a locational identifier to the network traces that brought the plan into the world and where it goes (Latour, 2005). • An actor designates a source but the actor is a mediator being mediated (Latour, 2005). • An actor that doesn't act is immaterial (Latour, 2005). Hence does an actor have an effect on other actors is key within ANT (Steen et al., 2006). • "ANT is based on no stable theory of the actor; in other words, it assumes the radical indeterminacy of the actor. For example, neither the actor's size nor its psychological make-up nor the motivations behind its actions are predetermined." (Callon, 1997:2)
Black Box	<ul style="list-style-type: none"> • Those facts that are generally accepted as true. Where although these boxes can be challenged the link between the claimant and the claim is no longer necessarily required (O'Connell, et al., 2009).
Boundary Objects	<ul style="list-style-type: none"> • "A boundary object ties together actors with diverse goals because it is common to multiple groups but is capable of taking on different meanings with each of them" (Briers & Chua; 2001:241) • Four types of boundary objects have been identified <ul style="list-style-type: none"> ○ Things ○ Ideal types ○ Coincident boundaries ○ Standardised forms/work methods • Ideal boundary objects have a hard outside and a plastic inside (Briers &

Term	Description
	Chua, 2001) – For example a product has a hard outside but can be seen as a cost by accountants and a revenue item by marketers. “These common objects enable functional specialists to use their different perspectives relatively autonomously and for cooperating parties to share a common referent” (Briers & Chua, 2001:242)
Centre of Calculation	<ul style="list-style-type: none"> • “Any site where inscriptions are combined and make possible a type of calculation. It can be a laboratory, a statistical institution, files of a geographer, a data bank and so forth. This expression locates in specific sites an ability to calculate that is too often placed in the mind” (Czarniawska, 2004:777 citing Latour, 1999:304) • Within centres of calculation “inscriptions of different traces are accumulated and used to act on a distant periphery” (Cuganesan, 2008:82)
Collective	<ul style="list-style-type: none"> • A neutral term to bypass social and material categorisation and emphasise that the world is full of things as opposed to two realms of material and social (Latour, 2005).
Flatland	<ul style="list-style-type: none"> • The metaphor of the flatland is simply a way for ANT researchers to clearly distinguish their job from those they follow around. If the analyst assumes scale then most of the work to establish connections simply vanishes from view (Latour, 2005)
Intermediary	<ul style="list-style-type: none"> • An intermediary “transports meaning or force without transformation” (Latour, 2005:39) – For all practical purposes an intermediary can be taken as being a black box.
Mediators	<ul style="list-style-type: none"> • “Mediators transform, translate, distort and modify the meaning or the element they are supposed to carry” (Latour, 2005:39) – A conversation maybe a complex chain of mediators where passions, opinions and attitudes are present at every turn.
Object	<ul style="list-style-type: none"> • An object is an effect of an array of relations (Law, 2000)
Obligatory Points of Passage	<ul style="list-style-type: none"> • A location where there is accumulation – For example; “To save your cows from anthrax you were forced to make a detour through his laboratory, its procedures and its products.” (Law, 2000:9)
Organisation	<ul style="list-style-type: none"> • “An achievement, a process, a consequence, a set of resistances overcome, a precarious effect” (Law, 1992:8)
Overflowing	<ul style="list-style-type: none"> • Denotes the impossibility of total framing, ie internalising all externalities (Callon, 1997)
Plasma	<ul style="list-style-type: none"> • That which is not yet formatted, measured or engaged with (Latour, 2005)
Plug ins	<ul style="list-style-type: none"> • Tell a thing how to behave in a given situation (Latour, 2005) – They are similar to subjectifiers, personalisers or individualisers, just a more neutral term.
Punctualisation	<ul style="list-style-type: none"> • “Network patterns that are widely performed are often those that can be punctualised. This is because they are network packages -- routines -- that can, if precariously, be more or less taken for granted in the process of heterogeneous engineering. In other words, they can be counted as

Term	Description
	resources, resources which may come in a variety of forms: agents, devices, texts, relatively standardised sets of organisational relations, social technologies, boundary protocols, organisational forms -- any or all of these... Punctualisation is always precarious, it faces resistance, and may degenerate into a failing network. On the other hand, punctualised resources offer a way of drawing quickly on the networks of the social without having to deal with endless complexity" (Law, 1992:5).
Proof and Data	<ul style="list-style-type: none"> • "Proof and data are substituted by functionally descriptive terms such as inscriptions and immutable mobiles" (Ivakhiv, 2002:394)
Translation	<ul style="list-style-type: none"> • "Translation is a verb which implies transformation and the possibility of equivalence, the possibility that one thing (for example an actor) may stand for another (for instance a network)" (Law, 1992:5). • Translation generates ordering effects such as devices, institutions and organisations (Law, 1992)

A8.1.1 Callon's (1986) Four Stage Process

The following outlines Callon's (1986) four stage process, drawing from Fox (2000) to enhance the description as, in the opinion of this researcher, Fox's (2000) description is relatively easy to understand compared to that of Callon's (1986).

1. Problematization – "One set of actors defines a problem in such a way that the others can recognise it as their problem too, but in the process, the first set of actors indicate that they have the means of resolving the shared problem" (Fox, 2000:862).
2. Interessement – With reference to the first set of actors, allies are locked in the roles proposed for them by the gaining of the commitment of the allies to a "set of goals and a course of action" (Fox, 2000:862) proposed by the first set of actors.
3. Enrolment – Allies are defined and co-ordinated by the first set of actors through many means "persuasion, threat, inducements, etc. Enrolment is the process in which the proposed course of action is carried out, consolidating the roles and activities" (Fox, 2000:862) which the first set of actors proposed.
4. Mobilization of Allies – The second set of actors, the allies are reduced to a few spokespeople, "so that as the action unfolds, they [the first set of actors] can communicate with the aid of a few diagrams and charts (immutable mobiles) the progress which is being made towards their shared goals" (Fox, 2000:862). Thus the interests of others are translated into those of the first set of actors.