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Beyond Narrative: Modelling Metaphor in
Environmental Discourse

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Innovation and Design for Sustainability

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Abstract

This project aims to bring together ideas from a wide range of disciplines with the objective of exploring the use of metaphor in environmental discourses. It looks beyond the narrative form of story-lines to construct models of discourses by representing processes as spatial arrangements of content. The subject to be explored is the competing discourses of economic growth and sustainability, an area which continues to generate much debate but little change in economic policy. The current dichotomy of views representing the pursuit of growth as somewhere between essential to social stability and the root of all evil has prevented a move towards consensus in the debate. This study aims to explore the ways in which an analysis of metaphor within the discourse could open up possible conduits towards the goals of sustainability.

Key words: metaphor, discourse analysis, economic growth, sustainability, modelling.

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ABBREVIATIONS

AH	Alternative Hedonism
CP	Cognitive Polyphasia – the ability to hold two completely contradictory views simultaneously.
ESRC	Economic and Social Research Council
IPCC	Intergovernmental Panel on Climate Change
GDP	Gross Domestic Product
NGO	Non-Governmental Organisation
PWG	Prosperity without Growth (SDC report)
SDC	Sustainable Development Commission
RESOLVE	Research group on Lifestyles, Values and Environment
RR	Right Relationship

CHAPTER 1, INTRODUCTION

1.1 Background to the research

In 1980, George Lakoff and Mark Johnson published the seminal work, 'Metaphors We Live By', an exploration of how metaphor affects and is effected by our experience. They proposed that metaphorical concepts are at the centre of our experience and are much more than a linguistic tool for describing things. Postulating an alternative view to objectivism and subjectivism they introduced an 'experientialist' account of how we understand the world through our interactions with it.

Despite limited academic interest in the applied use of metaphor there has been a major development within the field of psychotherapy. The instigator of this work, psychotherapist David Grove (Grove and Panzer 1989) observed that trauma victims found it easier to describe their experiences using metaphor. From this work, a questioning method called 'Clean Language' was developed to elicit a 'metaphorical landscape' through which clients could transform the painful experiences of their trauma. Grove's practice was modelled by Penny Tompkins and James Lawley (2000) who developed Symbolic Modelling as a result of the process. The dissemination of this practice is having a widening influence in a variety of applications including healthcare, business organisation, education and personal development. The principles of this work form the basis of the research methodology (Appendix A).

The environmental debate surrounding the incompatible drives of ever-increasing consumption and a finite planet of resources has been on-going

since the 1970's following seminal publications such as Rachel Carson's *Silent Spring* (1999) and the Club of Rome's *Limits to Growth* report (Meadows, Randers, Behrens 1972). While there has been some research into environmental discourses (Hajer 1995, Harre et al 1999, Dryzek 2000) there has been scant attention paid to the resistance to change at a socio-institutional level. The ecological modernisation discourse adopted by the mainstream (Hajer 1995, Walker and Cook 2009) remains coupled to growth as a fundamental requirement of the capitalist system. The recent economic turmoil has been viewed by some as an opportunity to challenge the prevailing economic models (Henderson and Capra 2009, SDC 2009) but fundamental change to the existing economic structures appears unlikely.

The Sustainable Development Commission (SDC), the government's independent advisor on sustainable development was tasked with examining the link between economic growth and prosperity. The five year research project culminated this year with the publication, 'Prosperity Without Growth' (SDC 2009). Unfortunately, this comprehensive document which outlines steps to a more sustainable economy has largely been ignored (ENDS report, 04/09). While increasing numbers of the scientific community agree with the extreme predictions on climate change and the carrying capacity of the planet (IPCC 1999, Stern 2007) institutional change is slow and incremental. Calls for a paradigm shift in our thinking and behaviour by a range of academics, NGO's, charities and even industry are being met with the continued attachment to current business practice and consequently slow political uptake. This project will explore the possible link between metaphor, the way we experience the world and the representation of those experiences as a possible barrier to change.

1.2 Defining the Research Problem

The research problem stems from the current dichotomy of views surrounding economic growth and sustainability. The calls for major economic, political and cultural reforms have had an underwhelming response in the mainstream. Given the ever-worsening predictions of the consequences of climate change and other associated environmental degradations it would seem that any insight into the possible barriers to socio-institutional change would be relevant.

1.3 Aims and Objectives of the Research

In response to the research problem the project aim and objectives are set out below.

Aim

The research will explore the use of metaphor in the current environmental discourse surrounding economic growth and sustainability by constructing and analysing models of selected texts within the discourse. It will be broken down into the following elements.

Objectives

- To explore metaphor as a tool to assist understanding.
- To explore what metaphors are used within the discourse on economic growth and sustainability.
- To explore the application of therapeutic modelling concepts as a way of analysing discourse.

- To investigate the potential use of the selected conceptual frameworks as conduits towards more sustainable lifestyles through behaviour change and or public policy.

1.4 The scope of the research

The research will start with an in-depth literature review to substantiate the importance of metaphorical concepts as a tool for understanding. This will draw from work in linguistics, psychology, cognitive science, neuro-biology and discourse analysis. On the basis of the literature review a methodology will be formulated to guide the collection of data. The metaphor content, once elicited will be analysed for coherence and consistency in relation to the theories and concepts from literature.

A framework of the analysed content will be constructed to adapt the therapeutic modelling techniques to an analysis of the selected data. The main limitation to the scope of the study will be time. Therefore the metaphor landscape will be built up in as many stages as time allows.

The findings of the study can potentially be applied to those involved in environmental discourse, discourse analysis generally and policy-making.

1.5 Thesis structure

The thesis consists of the above introduction which outlines the background to the project and the proposed aim and objectives. The next section, the

Literature Review will provide a summary of the available research in this area and how it has informed the study. The conclusion of this section will provide a conceptual map of the thesis as a guide to the theory, the data and the outputs. The next section will comprise of methodology, method and application covering all aspects of the rationale behind how the research was conducted.

The findings of the research will be presented in the Chapter 4 'Results'. This will highlight and summarise the main findings which relate to the stated aim and objectives of the project. Supporting data will be located in the appendices and on a separate CD rom. There will be a discussion of the results in Chapter 5 which will highlight how the research undertaken compares with that identified in the literature review and new insights resulting from the study will be presented. Finally, Chapter 6 will conclude with an evaluation of the project in terms of its success in achieving its aims and objectives.

Chapter 2, LITERATURE REVIEW

The aim of this section is to identify research from literature that will inform the project and assist in the delivery of its objectives. It will look at work in the fields of linguistics and philosophy that link metaphor with understanding. It will then consider other fields where a link to metaphor and understanding has been established. The use of modelling techniques will then be addressed in terms of how they relate to the analysis of discourse. An overview of the analysis of environmental discourses will follow with a summary of the status of the current debate regarding growth and sustainability. The key findings will then be summarised.

The literature review has been broken into the following categories.

- Theories of metaphor and conceptual frameworks
- Metaphor, embodiment and primary experience
- Application of metaphor
- Modelling change
- Frames and reframes
- Environmental discourse
- Environmental discourse on growth
- Key findings
- Conclusions from Literature

2.1 Theories of metaphor and conceptual frameworks

The Oxford Dictionary defines metaphor as:

“a figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable. A thing regarded as representative or symbolic of something else”

It comes from the Greek, *‘to transfer’*. This underlines the commonly held view that metaphor is merely a linguistic device. This view, which dates back to Aristotle, together with a belief that metaphor is ambiguous whereas literal language is always clear and factual has been disputed by a number of philosophers, linguists and cognitive scientists (Lakoff and Johnson 1980, Cornell Way 1994, Harre, Brockmeier, Muhlhausler 1999). With increasing evidence from cognitive linguistics (Sullivan and Rees 2008) metaphor is becoming acknowledged as much more than a tool for describing one thing in terms of another. In research, Gibbs (1992) found that in normal conversation as many as six metaphors a minute are used. It has been argued that the pervasiveness of metaphor is mirrored in our mental processing as much as in spoken language.

Lakoff and Johnson (1980) argue that all language and thought is metaphorical. They demonstrate how our conceptual frameworks are metaphorical and how this structures our experience. In other words, we think in metaphorical constructs and this in turn affects what we perceive and how we interact with our environment. Using everyday examples, like ‘argument is war’ they demonstrate how holding this metaphorical concept effects the way in which we conduct ourselves in an argument and how this is systematically applied to the rules which we implicitly adopt. So when arguing, I can expect to win battles, surrender a position, attack my opponent and admit defeat gracefully, or not.

These metaphorical concepts are fundamental to our understanding and direct our attention to parts of the metaphor that reflect our experience and ignore the parts that do not, a process they describe as '*highlighting and hiding*'. For example, there is a commonly held concept in the West of 'time is money' which allows us to think and act in a way that highlights that time in Western society is a resource and will be spent, used, borrowed in the same way that money can be. However, they are not the same thing and the concept stops being useful when applied as if time could be paid back in the way money can. Hence, conceptual metaphors form a complex system which works together to form a coherent understanding of lived experience. All of these different metaphors work together to produce a consistent whole. Fairclough (2003) supports this view, stating that the different combination of metaphors differentiates discourses and produce "*distinct representations of the world.*"

Taking spatial-orientation metaphors they found an array of common metaphorical structures which define Western society: 'more is up, more is better (up), bigger (up) is better, the future (forward) will be better, happy is up, sad is down, conscious is up, unconscious is down'. These embedded metaphors of orientation relate to direct physical experience, where, for example posture can be identified as having an 'up' orientation in someone who is happy. Identifying metaphor, Soslke (1985) has shown that metaphor has no consistent syntactic form, thus much metaphorical use goes unnoticed as it is embedded within language and in our conceptual frameworks.

Cornell Way (1994) disputing this extreme view makes the case for 'dynamic hierarchical types' which preserves the literal-figurative distinction. Both studies agree on the pervasiveness of metaphor in language and its importance in the building of conceptual frameworks which underlie our ability to understand our world. Bowdler and Gentner (2005) provide a

comprehensive argument from psychology and linguistics on the importance of metaphor quoting Ortony,

“metaphors are necessary and not just nice” (Ortony, 1975 p.45)

Lakoff (2008) claims that the application of metaphor is not recognised or debated due to underlying fears of the possible power it wields when used purposively.

2.2 Metaphor, embodiment and primary experience

In the update to the first edition, Lakoff and Johnson provide more research in favour of their arguments from discourse analysis (Narayanan 1997, Grady 1997, Johnson, C. 1999). This work provided the foundation for Neural Binding Theory which relates the neural pathways formed during our primary experiences in childhood with the formation of our primary metaphorical concepts. The understanding of warmth as affection comes from being held close as a baby and subsequently this structures the metaphorical concept of a warm person, a warm heart and a warm welcome. If this theory is correct then the appeal of scientific theories would be directly related to how well the metaphors used to describe the theory fit with our embodied experience, as these would correspond to formative neural bindings. In other words, how well the non-physical is translated into physical experience. Einstein, in explaining the theory of special relativity, employed the embodied concept of travel on a light beam. This metaphor fits with our physical experience of movement, distance and time and is therefore easier to conceptualise.

Clinical research in the field of neurobiology by Antonio Damasio (1993) found that we rely on our bodies, our emotions and our feelings to make what are

termed 'rational' decisions. The hypothesis was formulated after observing that patients with brain damage to specific neural centres controlling emotional responses could no longer make appropriate decisions about their life. This was contrary to the still commonly held view that it was necessary to exclude the emotions in order to make rational decisions. Damasio (1994, 1999, 2003) formulated the '*somatic-marker hypothesis*' to describe the process by which we create image maps consisting of the activated neural pathways of our embodied experiences. These somatic-markers are used in all our processing and are critical not only for our survival mechanisms but also our higher order functioning, previously thought the sole preserve of the frontal cortex.

The implications of this research and Narayanan's (et al 1997-1999) Neural Binding theory is that the process of understanding and behaviour is an integrated function of mind and body. This indicates that any analysis of behaviour, thinking or language needs to incorporate this embodiment of understanding. To exclude the body, emotions and primary experiences is to omit key elements of the cognitive process. These theories have gained ground in practice with an increase in clinical use of techniques which address the physical and mental aspects of health but have yet to become embedded in academic thought.

2.3 Applying metaphor

With the exception of discourse analysis there is a paucity of academic research into the application of metaphor as a tool for understanding. A paper by Jeffrey and McIntosh (2006) outlined a methodology for applying co-evolutionary theory metaphors to socio-natural systems. The study highlights the problems of applying the metaphors of one scientific theory to the practical issues encountered in a different domain.

A study of marketing metaphors conducted by Mitchell and Sarin (2006) advocated the use of 'living product' metaphors to recombine environment and organisation and move away from the mechanistic perspective which follows the Cartesian split between animate and in-animate matter. They recognise the power of metaphor to generate new ways of thinking around sustainability and to widen the perspective of business operators. However, they also conclude that there are practical difficulties associated with translating metaphors taken from a different domain.

2.4 Modelling Change

Given that metaphorical concepts and mental processing are implicit, information has to become explicit in order for mental models of the world to be constructed and shared. Psychotherapist, David Grove (1989) developed two processes 'Clean Language' and 'Emergent Knowledge' which allow a facilitator to elicit this information through the use of metaphor and by asking 'clean questions' (Appendix B). The questions are clean because they do not contaminate the client's model with that of the facilitator. This is an important breakthrough in therapy and eliminates the need for the client to explain, justify or interpret their model for the benefit of the facilitator's understanding.

Lawley and Tompkins (2000) who modelled David Grove over a period of three years, define modelling as:

"...a process whereby an observer, the modeller, gathers information about the activity of a system with the aim of constructing a generalised description (a model) of how that system works. The model can then be used by the modeller and others to inform decisions and actions." (p22)

The modelling process is not exact as it requires the elicitation of implicit mental constructs. Grove found that the client's internal models could be elicited in the form of metaphor. The elicited metaphors combined to form a metaphor landscape which was isomorphic with the client's internal experience of the world. So that an expression such as, 'I can't bear it' would represent the same organisation of the embodied experience within the client's mental construct. The metaphor acts as a mediator between the internal implicit experience and the external explicit one. It is this mediation role which enables worldviews to be constructed from metaphor.

Symbolic Modelling is defined as a process,

"...to facilitate people's discovery of how their metaphors express their way of being in the world – including how that way of being evolves." (Lawley and Tompkins 2000 p23)

This method is used in therapy and coaching to assist clients to move towards their desired goals. Hence, part of the process is to elicit those desired goals. This is a standard and essential element in coaching and is used to direct the work. Goal destination is also a primary metaphor (Lakoff 2008) in use in the West to conceptualise 'life as a journey', success as 'getting there' and progress as 'being on-track'. This metaphorical concept directs much of our attention and activity on a day-to-day basis and as such needs to be identified as part of any mental model in order to understand the pattern of organisation. Fig 1, below, shows how patterns of organisation build up at each level of the Metaphor Landscape. At each level the components from the previous level are transcended and included in the overall pattern of organization. For example the overall goal destination may be comprised at lower levels by milestones, guiding information, blocks or alternative routes.

to behavioural change. The research shows that conceptual frameworks held by individuals and society are directly related to how information is dealt with in terms of interpretation and translation. It is through our conceptual frames that problems are defined and solutions sought. Giddens (1976) defines social life as being produced by,

“active constitution and reconstitution of frames of meaning whereby they (actors) organize their experience” (p79).

Working in a therapeutic context, Watzlawick, Weakland and Fisch (1974) advance *“the gentle art of reframing”* as a strategy for change. The benefit of this approach is that a successful reframe can lead to a more effective organisation of the system and better problem setting and solving. In addition, when the original frame has been transcended by an alternative perspective, a return to the less effective mode of operation is unlikely.

Lakoff's recent work with Joe Brewer (www.cognitivepolicyworks.com) combines the ideas of *'deep frames'* with public policy. They determine a difference between *'material policy'* and *'cognitive policy'*. The former works at the surface of the issue and defines what actions are taken. Cognitive policy refers to the values and motivations lying behind the policy which will determine its impact. If a policy is aligned with the key frames, in terms of deeply held values and modes of thought, held by the population then it is more likely to succeed.

2.6 Environmental Discourse

This section will identify literature related to the importance of environmental discourse as a tool for public policy-making with particular reference to the

importance of metaphor within those structures. Following this the issues surrounding growth as a metaphor and particularly economic growth within these debates will be addressed.

Metaphor plays a key role in the analysis of discourse and has been studied as part of the work on environmental discourse. Hajer (1995) states that the environmental crisis or dilemma has become discursive and that it is understood via the mediation of a number of different actors; scientific experts, politicians, and organisations. As the debate becomes more complex '*emblems*' emerge which help to define the "*larger whole of the environmental situation*", for example acid rain in the 1980's. Dryzek (2005) identifies four main environmental discourses; environmental problem solving, survivalism, sustainability and green radicalism each with their own distinct metaphors. Dryzek argues that the current environmental discourses have fundamental differences in their perspectives and that this limits the amount of useful interchange that can be facilitated across their conceptual boundaries. He argues, for intelligent environmental decision-making, there needs to be learning between discourses and within institutions.

Hajer supports this call for more reflexivity within discourses and classifications of the issues arguing,

"Reflexivity can thus be the quality of a metaphor or story-line that in a given context changes the perception of future perspectives." (Hajer 1995 p40)

In politics, Hajer's story-lines perform similar roles to Schon's (1979) '*generative metaphor*' by facilitating wider understanding of scientific knowledge in non-scientific arenas, directing attention to particular parts of the issue and opening up possibilities for defining solutions.

Harre, Brockmeier and Muhlhausler's (1999) study of environmental discourses emerging between 1992 and 1996 starts with the proposition that metaphors relating to our understanding of ecological processes and our relation to the environment come from the Cartesian worldview. As such, they are inadequate tools for representing the current situation because they separate the human from the non-human. They propose the creation of new metaphors that would open up new perspectives and incorporate new ideas of deep time, systemic thinking and desirable growth.

Like Harre and Dryzek, the authors recognise the importance of metaphor in the construction of environmental discourses adding,

"..one of the jobs that metaphors have done and can continue to do is to help researchers – be it in natural science, the social sciences or applied areas – formulate better questions." (Harre, Brockmeier, Mulhausler 1999, p110)

After analysis of several ecological metaphors they concluded that 'semantic vagueness' is at fault whereby metaphors are misleading or conflicting. For example, forest harvesting would more accurately be termed cutting down trees and forest clearing is the removal of native vegetation.

2.7 The metaphor of growth in environmental discourse

At the heart of the environmental debate is the issue of economic growth and limits to growth. This has been outlined in numerous publications since the start of environmental activism (Meadows et al 1992, Daly 1997, Stern 2007). It is not within the scope of this paper to illustrate the range of positions on this topic. What the number of publications advancing theories on the subject proves is that the discourse has not reached consensus. New terms have been introduced such as zero and low growth, sustainable growth and steady-

state economy but so far none have become the emblem of a new paradigm. Even the term 'economic growth' is liable to be interpreted in a variety of ways which only adds to the obstacles to establishing a consensus.

In the language appendix to Meadows, Randers and Randers (1992) book, *Beyond the Limits* there is a section on growth which goes some way to identify the issue surrounding the use of 'growth' as a term in environmental discourses;

“TO GROW means to increase in size by the assimilation or accretion of materials. TO DEVELOP means to expand or realize the potentialities of; to bring to a fuller, greater or better state. When something grows it gets quantitatively bigger; when it develops it gets qualitatively better or at least different. Quantitative growth and qualitative improvement follow different laws. Our planet develops over time without growing. Our economy, a subsystem of the finite and non-growing earth, must eventually adapt to a similar pattern of development.”(P. xix)

Straightforward as this quantitative/qualitative split appears, in common usage this differential is less apparent. As a metaphorical concept growth is fully embodied in our primary metaphors and experience which are sensory and therefore qualitative. This results in an array of conflicts and contests which affect our understanding of the environmental situation. Harre (et al 1999) quote Halliday's work (1992) to demonstrate how these metaphors are directly linked to our experience of the world on a physical, emotional and cognitive level so that when 'output falls sharply' we relate negatively to the act of falling, the sharpness which indicates danger and from the quantitative loss where 'less is bad'. The conceptual maps for growth are complex and as Harre (et al) conclude,

“The metaphors of more is better and bigger is better are not easily made compatible with environmentalists’ ideology.”

The question remains whether or not the discourse on economic growth can be reconciled to the primary physical experiences that dominate our conceptual maps.

In this study, the focus will be on the environmental discourse surrounding economic growth. Metaphors used to describe economic growth come from different models which in conceptual terms are not consistent. Economic theory is based on the laws of natural physics and the concept of equilibrium states. However, other metaphors are emerging, for example, the ‘co-evolutionary processes’ and ‘long-waves’ of socio-institutional change (Freeman and Louca 2001, Geels 2002). Kahnemann and Tversky’s work on Prospect Theory (1979) showed empirically that economic actors do not act rationally when decision-making and choices incorporate evaluations of loss and gain more like a lottery than a perfect market with perfect knowledge. Evaluations are effected by perceived risks and so the “economic management of risks” (Beck 1992) have also become part of the conceptual framework of economic growth. The metaphorical concept or contextual frame being used will direct attention towards or away from what is being observed.

2.8 Key findings

In summary, a review of the literature has revealed the following key findings;

- Metaphor is more than a simple linguistic tool for describing 'reality'.
- Metaphorical concepts are crucial to our understanding of our world and effect the way we perceive and interact with our surroundings.
- Metaphorical concepts are systematically applied to our understanding and form consistent maps of our experience by highlighting and hiding information depending on the experience which they represent.
- Metaphor, emblems and story-lines are powerful tools used by a range of actors influencing both individual decision-making and policy.
- Symbolic Modelling is a technique used to construct models of internal, implicit maps using the analysis of metaphor. This technique reduces the personal bias of the modeller on the model by the use of Clean Language (Appendix A and B).
- In coaching techniques the goal destination, a primary metaphor, is an essential element in the process of change. Frames play an essential role in problem setting and solving. These can be modelled as part of the change process.
- The analysis of metaphor use within environmental discourses can bring about enhanced reflexivity and facilitate more useful exchanges between different actors constructing story-lines.
- Growth is directly linked to our primary experiences in childhood and as such is represented in our primary metaphors. This means that our conceptual maps and therefore our understanding of growth as used in environmental discourses will be affected by these experiences.

- Economic growth is a central issue within the construction of competing environmental discourses.
- The use of metaphor in economic modelling can help to understand the conceptual frameworks being advocated by different actors.

2.9 Conclusions from Literature

In conclusion the literature review identified support for undertaking an exploration of metaphor in environmental discourse with particular attention on primary metaphor and embodiment. The use of modelling techniques is also supported by the literature as a method for eliciting mental models and constructing conceptual frameworks around metaphor. The importance of environmental discourse within policy-making and the continued debate around economic growth provides the impetus for choosing this as an area for exploration.

The conceptual map, below, was devised to guide the project.

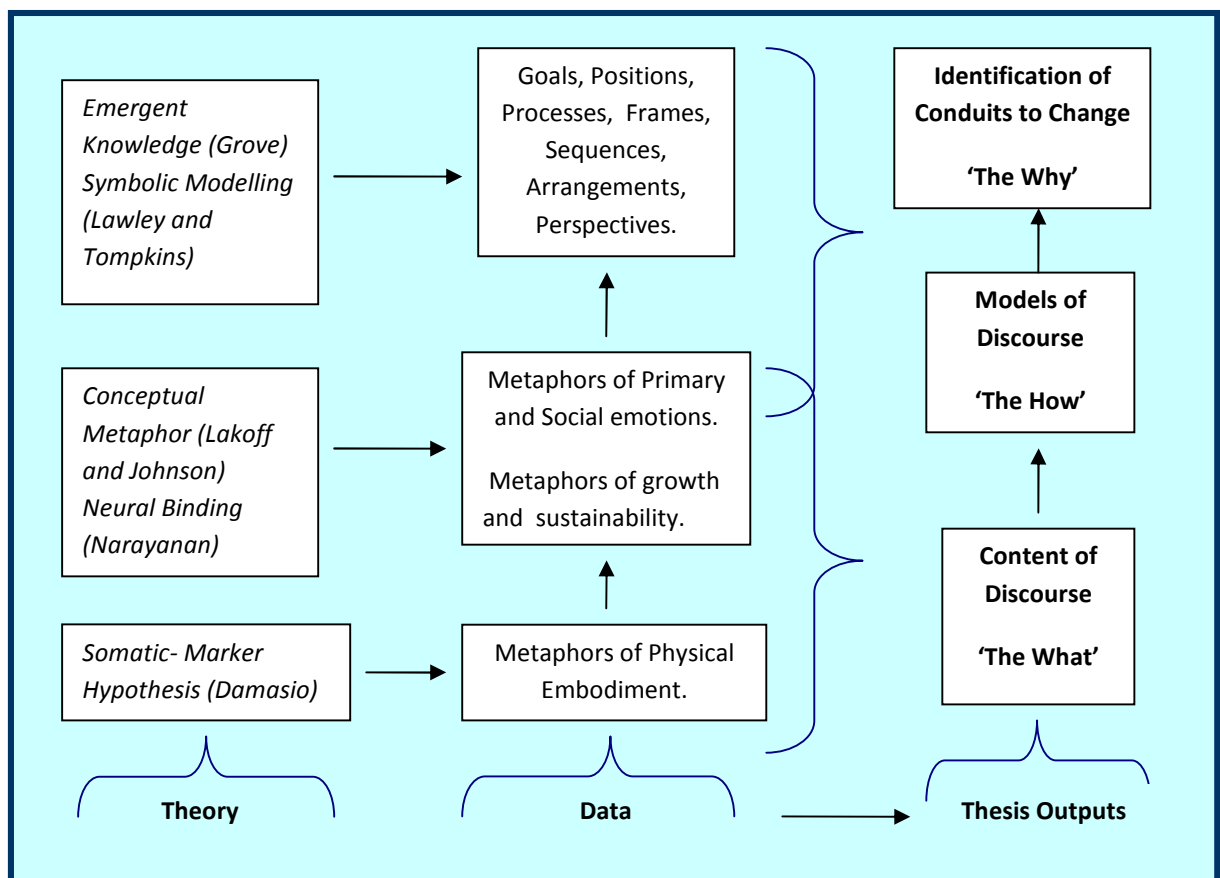


Fig 2 Conceptual Map of the Project

The diagram demonstrates how the theories (on the left) identified in the literature review influence the data to be collected (middle column) and how this will be used to inform the outputs (on the right). The outputs have been categorised into 'The What', meaning what metaphors are being used. 'The How', determining how the models of discourse are created and 'The Why', identifying how the models could be used in the public domain as conduits to change. Together these deliver the aim and objectives of the project as set out in the next section.

Chapter 3, METHODOLOGY AND MATERIALS

3.1 Introduction

This section will describe the research methods used in the project. Section 3.2 will consider the research design, broken down into the aims and objectives, the purpose of the study, the research strategy, the data collection methods and finally the approach to data analysis. The following section will consider how the research design was applied to the project. The epistemological position of the author, as recommended by Harding (1987 cited in Henwood 1996) has been provided in Appendix C along with a reflexivity statement as recommended by Robson (2002).

3.2 Methodology

3.2.1 The Research Aim, Objective and Questions

The table below summarises the research aim and objectives developed from literature and the research questions the project will attempt to answer.

Table 1 Aim, Objectives and Research Questions

Aim:
To explore the use of metaphor in the current environmental discourse surrounding economic growth and sustainability by constructing and analysing models of selected texts within the discourse.
Objectives and Research Questions
To explore the use of metaphor as a tool to assist understanding <ul style="list-style-type: none"> • Achieved during the literature review.
'The What':
To explore which metaphors are used within the discourse on economic growth and sustainability. <ul style="list-style-type: none"> • What particular metaphors are being used in the environmental discourse on economic growth and sustainability? • What primary metaphors are being used in terms of physical embodiment, primary and social emotions? • Can discourses be measured in terms of the use of primary metaphors? • What metaphors of space, time and relationship are being used? • Does the collection of metaphors help to construct models of discourse? • Are the metaphors of economic growth consistent with primary metaphors?
'The How':
To apply therapeutic modelling concepts to an analysis of discourse. <ul style="list-style-type: none"> • Can therapeutic models be applied to an analysis of discourse? • What information is needed to construct a model of discourse? • What are the advantages and disadvantages of modelling discourse in this way?
'The Why':
To investigate the potential use of the selected conceptual frameworks as conduits towards more sustainable lifestyles through behaviour change and or policy. <ul style="list-style-type: none"> • Do the models of discourse represent conduits to more sustainable lifestyles? • What can be learnt from the models in terms of the current debate on economic growth and sustainability? • What are the limitations of the models for policy-making?

3.2.2 The purpose of the research - exploratory

The purpose of the research is exploratory. This is based on Robson's (2002) criteria. The research will be seeking new insights on the use of metaphor in environmental discourses. It will be looking at the subject in the 'new light' of modelling discourse and will generate ideas and hypothesis for future research in this area. Although there are elements of description in the elicitation of the metaphors this does not alter the key purpose of the research. As a modelling project using an adapted methodology which has not been tested in this area there is a secondary purpose to the research which is to generate rules for applying symbolic modelling to discourse analysis.

3.2.3 The research strategy – Discourse analysis with modelling techniques

The research strategy falls outside the three traditional methods used in social science research: experimentation, survey and case study (Robson 2002). The nature of the study directs the strategy towards an adapted form of discourse analysis. Dijk's (1997) discourse dimensions feature metaphor as an element within 'rhetoric'. Dryzek (2005) also gives prominence to metaphor as a tool within discourse analysis. The strategy will therefore be to follow a discourse analysis process as followed by Walker and Cook (2009) using the principles of Symbolic Modelling (Appendix A) and the modelling skills acquired by the author through practice.

The use of modelling techniques is experimental in this field. This choice is driven by the nature of the information to be modelled and the objective of the research; to build a metaphor landscape and identify conduits towards desired goals. In discourse analysis the focus is on history and digging out the

archaeology of constructions of truth (Foucault 1980) with attention targeted at discursive battles and power relations. Discourse analysis is rooted in social change whereby the purpose of actors' constructions is to gain or direct power. In this study the role of actors will not form part of the study. Under scrutiny are the coherence, consistency, plausibility and attractiveness of the metaphors being used in the discourses.

The choice of therapeutic modelling techniques was determined by the objective of modelling conduits for transformation. These modelling techniques include a goal destination and define a contextual frame. This is not the case in systemic modelling which is limited to illustrating causality and influence within the system.

3.2.4 Type of Data – Qualitative Data

A study of metaphor will be delivered through the use of qualitative data. "*Qualitative data deals with meanings*" (Dey 1995). There is no quantitative data within discourse and so this necessarily rules this type of data out although qualitative data can be transformed into quantities with the use of coding.

3.2.5 Data collection strategy – synchronic, text and talk

Synchronic texts (Saussure 1974 in Eagleton 1996) which give a snapshot of discourse at a given moment were chosen in order to fit with the time limitations. Diachronic analysis occurs over a specific time period and this was not possible given the time constraints. The data chosen comes from a variety

of text and talk although this differentiation is not seen in discourse analysis where all data is treated as text. The data sources were:

- a text
- attendance at a conference
- associated websites and forums.

Three sources have been selected to provide data triangulation although the constraint of time may affect the degree to which each element forms part of the analysis.

The Text

The chosen text is '*Prosperity without Growth*', written by Tim Jackson, Economics Commissioner for the Sustainable Development Commission (SDC). The text, published in April 2009 is the culmination of a five year programme on '*Redefining Prosperity*', incorporating contributions from many of the leading thinkers in this area. As the result of a long discursive process of workshops and exchange, it provides a comprehensive look at the arguments being put forward in the construction of a more sustainable economy. Sections of the text will be selected which give an overview of the document as time will not allow an analysis of the full text which is more than 130 pages.

The Conference

The conference, chaired by Tim Jackson, Director of the Economic and Social Research Council (ESRC) research group on Lifestyles, Values and Environment (RESOLVE) at Surrey University was attended by the author to provide an opportunity to analyse the spoken word of the report's author in a discursive context. The conference was held in London on the 18th June 2009 and provides the primary data in terms of an ethnographic report (Appendix D) and the transcript of the event (excerpts Appendix E).

Secondary Data – websites and forums

The SDC published the report on their website and provided a forum for feedback. This provided a third source of data for analysis.

3.2.6 Data Analysis – Adapted Discourse Analysis with Coding and Clustering

Primarily the data analysis will follow a discourse analysis process as this has been established in research methodology and will add rigour to the methodology. In addition to this, the principles of Symbolic Modelling and Clean Language (Lawley and Tompkins 2000) will be applied (Appendix A and B) to the analysis. This is likely to produce a lot of data which will then be coded thus applying an 'editing approach' (Robson 2002 based on Drisko 2000). This approach requires:

- No or (few) a priori codes

- Codes based on the researcher's interpretation of the meanings or patterns in the text.

A priori codes will come from theory found in the literature review in terms of primary experience; embodiment, primary emotion, social emotion. Although coding and clustering will be used it is important that codes do not distance the modeller from the original data as one of the main precepts of Clean Language and Symbolic Modelling is to use only the client's words. The coding will therefore only occur at the last stages of the process for the purposes of measurement and comparison.

For the purposes of constructing models of discourse, the data will be analysed for components that would normally be found in therapeutic models. The emergent methodology will form part of the results.

3.3 Application of the Research Design

The table below summarises how the research design was applied and the sequence of steps undertaken. The flexible design allowed the process to emerge as the project progressed. Following this summary there will be a discussion of the application in terms of limitations of the design, data validity and data reliability.

Table 2 Research Process Summary

No.	Activity	Outputs	Supporting Docs
1	First read through of Prosperity without Growth	Sections selected for further analysis: Exec Summary and introduction	PWG Report CD Rom
2	Detailed analysis, paragraph by paragraph of the executive summary of Prosperity without Growth.	Free drawn models	Examples CD Rom
3	Notes from models typed up – themes for models identified	Notes and themes from PWG Exec Summary	CD Rom
4	Attended the RESOLVE (Research group on Lifestyles, Values and the Environment) conference on the 18 th June 2009, London. Recorded presentations, Typed up transcript	Ethnographic Report, Sound Files and Full Transcripts	Appendix D CD Rom
5	Selected two presentations for further analysis and the closing comments..	Annotated transcript – 1 st pass	Excerpts Appendix E
6	Counted responses to the presentations	Annotated transcript	Excerpts Appendix E
7	First draft of the models produced	Draft hand drawn model diagrams	CD Rom
8	Line by line metaphor breakdown of the introduction to the Prosperity without Growth and the two presentations. Text broken down by <ul style="list-style-type: none"> a. Primary metaphor and embodiment words. b. Generative metaphor c. Spatial relationships, perceivers and time. 	Spreadsheet breakdown	All data CD Rom Evolution of coding Appendix F
10	The metaphor analysis was used to update the draft models and key themes extracted. Perceiver at starting position A Context C Desired Outcome/Goal position B Wider Environment D Time Processes All-seeing-eye E	Updated models	Modelling methodology in Results
11	A second pass of the texts to standardise the metaphor analysis into the following key themes and counts were made. <ul style="list-style-type: none"> a) Embodiment; hold, sense, ask, touch, hear, pain, pleasure b) Primary emotion; fear, disgust, anger, sadness, happiness, joy c) Social emotion; empathy, co-operation, love, confidence. 	Abridged Spreadsheet with codes and totals	All data CD rom Evolution of coding in Appendix F Primary Experience Totals in Results
12	Final check on presentation response counts	Updated transcript and table	Results
14	Finalised modelling methodology	Modelling methodology	Results
15	Finalised models of discourse	Final models in electronic format	Results

3.4 The Research Design Reviewed

This section reviews the application of the research design to the project.

3.4.1 Subjectivity of selection.

The texts chosen for analysis were chosen subjectively with the criteria to represent a broad range of the views around economic growth and sustainability. However, on reflection all the texts came from SDC/ RESOLVE projects. Therefore, it may have been more balanced to look for an opposing view. The author recognises the limitation but is satisfied that the texts chosen represent three different views of the area.

3.4.2 Data reliability

Data reliability was ensured by recording the discourse and producing the transcript in full, then re-checking the transcript for errors against random sections of the recording.

3.4.3 Data validity

Researcher bias was minimised by the production of a statement of reflexivity, the use of clean language questions in the modelling process and the creation of a standard model by which criteria were selected. Three rounds of analysis

were conducted on the full text of the transcript so that early subjective selections would not skew the findings.

3.4.4 Data Collection Strategy

The presentations given at the conference provided a more coherent discourse to model than the PWG report. The report format was too detailed and produced multiple models as it addressed many elements within the topic of economic growth whereas the presentations had a more direct message for the audience. To compensate for this a model of the closing comments of the report's author was produced. This was related directly to the report and was in response to feedback received so this provided a dynamic element to the original model and was a serendipitous benefit to the project.

3.4.5 Modelling techniques

Modelling techniques were successfully applied to the data using a standard model which emerged as part of the process. This allowed a lot of unnecessary content which pertained to the problem frame to be excluded without prejudice. The 'all-seeing-eye' position was an emergent property which significantly altered the impact of the model and its applicability.

3.5 Summary of the Research Design

The summary of the methodology and methods covered in this section can be summarised as follows:

- The research was of **flexible** design and processes emerged as the project progressed.
- The purpose of the research was **exploratory**.
- The research strategy was **discourse analysis with modelling**.
- The data collected was **qualitative**.
- The data collection strategy was **synchronic texts**.
- The data analysis was a **discourse analysis process** with **modelling techniques** and limited **coding and clustering**.
- The research design lent itself well to the aims and objectives of the project and the flexibility allowed for the process to emerge as a result of consecutive iterations.

The next section will present the key findings of the research.

Chapter 4, RESULTS

This chapter will review the key findings from the research. These will be broken down into the following sections,

- Metaphor analysis
 - Discourse on economic growth and sustainability.
 - Metaphors of primary experience.
 - Response to the texts.
 - Summary
- Modelling methodology
- Models of environmental discourse on economic growth.

4.1 Metaphor Analysis

This section will give an overview of the findings of the metaphor analysis in terms of the discourse on economic growth and the breakdown of metaphors into primary experience; embodiment, primary emotion and social emotion. This was done for the Prosperity Without Growth (PWG) report and the two presentations from the RESOLVE conference on Alternative Hedonism (AH) and Right Relationship (RR). It will be followed by the measurement of responses to the texts by the panel at the conference.

4.1.1 Discourse on economic growth and sustainability

The Prosperity Without Growth (PWG) report and the two presentations, Alternative Hedonism (AH) and Right Relationship (RR) demonstrated there was no particular consistency in terms of the metaphors used to represent the discourse. The metaphors used ranged across three of Dryzek's four main categories; Survivalism, the Quest for Sustainability and Green Radicalism. The sheer number of metaphors employed made the analysis difficult but with respect to economic growth a particular theme for each text could be identified.

4.1.1.1 Prosperity Without Growth

In the PWG text the topic of growth was treated as a dilemma and the main text revolved around the question of whether or not it is possible to have,

“lasting prosperity and human flourishing without economic growth”.

This text was the most specific by what it meant by economic growth taking great pains to separate the concepts of well-being and prosperity from economic growth measured in macro-economic terms, namely GDP. It highlighted the problems of the measures and paid particular attention to the distribution of growth in the global economy and the concept of fairness between nations. This corresponds to the primary metaphor, morality is fair and morality is generous (Lakoff 2008). The report does not go as far as to say which is better – prosperity or fairness.

What is less clear is the difference made between growth and development. At the end of the analysis no conclusions could be drawn with regard to the

use of metaphors of primary experience or the concept of growth in terms of the organism and its survival.

The concluding remarks made at the RESOLVE conference by the author provided further data. Economic growth was described as a necessity for social stability in terms of jobs and incomes but contradictory to many of the ecological and social goals with regard to well-being. This places growth very specifically in a context which is consistent with the model of cognitive polyphasia (*“the ability to hold simultaneously two completely conflicting views”*) presented by Tim Jackson in the closing comments. Thus the *“growth dilemma”* was consistently represented as being both ‘good’ and ‘bad’.

4.1.1.2 Alternative Hedonism

In the presentation of AH, growth was presented within the *‘growth model’* pursued by industrialised economies. It was directly related to *‘consumerism, big business and work-driven lifestyles’*. It was depicted as something that needed to be challenged and opposed by individuals. The text highlighted the negative impacts of the growth model on individual lifestyles and the positive benefits of the proposed alternatives. By using embodied metaphors of pain, pleasure and primary emotions the argument highlighted individual lifestyle choices and inhibited analysis of the macro-economic system as these are from two different conceptual frameworks.

The problem was framed as *‘the paradox at the heart of the growth economy’* where work-driven lifestyles created *‘over-drafts at the bank of hours in the day’*. The narrative of freedom, of *‘springing the trap’* corresponds to a primary metaphor relating to freedom of movement. This was anchored in the

presence of disillusionment with the growth model. The primary metaphors used were consistent with growth being undesirable in terms of growth causing pain and sickness.

4.1.1.3 Right Relationship

Growth in the RR text was identified with the size of the economy. The measure of this was given as 'too big' when,

“it overwhelms the earth’s life support capacity, both its ability to build up complexity...and the ability ...to assimilate the waste stream.”

The metaphors here are organic and biological but not primary metaphors as they refer to the earth in abstract terms of capacity and complexity. It also represents the economy as an entity that has a size. This inhibits the metaphors of distribution, as an entity is usually the same size in all places. The solution to the over-sized economy, *“to see the economy embedded in the earth and the universe”* continues to place the economy as an entity. The organic metaphor of embedding is neither embodied nor bound to primary human experience.

The metaphor of *'too big'* could be linked to the primary metaphor of instability of the organism as it is being overwhelmed although this is not done explicitly. *'Too big'* is contradictory to other primary metaphors if it is taken in a conceptual frame of *'up is good'*, *'power is up'*, *'strength is up'*, *'morality is strength'* (Lakoff and Johnson 1980). Getting bigger is also part of the primary experience of growing up and could be neurally bound to the embodied experience of growing and a therefore a desired outcome for the organism. Therefore, there is some evidence that this use of metaphor is inconsistent with primary metaphors of experience.

In summary the results from the metaphor analysis on economic growth and sustainability were mixed. The main problem resided in the fact that each presentation had a different perspective on economic growth which incorporated qualitative and quantitative elements. The separation put forward by Meadows et al. (1992) between growth and development were not consistently applied. In PWG, growth was seen as quantitative but it was related conceptually to many qualitative concepts. In AH growth was treated as qualitative and in RR it was both qualitative and quantitative. When analysing the metaphors in use different arguments were being presented which were mainly consistent within their particular constructs.

4.1.2 Metaphors of primary experience

Below is a table summarising the analysis of metaphors for primary experience as per Damasio's (1993) work on somatic-marker hypothesis, Lakoff and Johnson's (1980) work on primary metaphor and Narayanan's (et al 1997-9) Neural Binding hypothesis. The table was arrived at after three iterations of analysis where individual metaphors of embodiment, primary emotion and social emotion were summed to give a metaphor scale of 'primary experience'. Coding was identified on the last iteration to ensure that as many primary metaphors of experience would be included. It is important to state that this quantitative data collection was only performed after an extended process of qualitative analysis was completed to identify the way in which metaphors were being used and cannot be done on counting word usage. For example, the term consumer in some cases inferred embodiment, for example 'consume differently' and in other cases was an abstract concept, 'post-consumerist models' (Evolution of coding Appendix F).

Table 3 Summary: Metaphors of Primary Experience Scale

<i>Text</i>	<i>Embodiment</i>	<i>Primary Emotion</i>	<i>Social Emotion</i>	<i>Totals</i>
PWG	22	28	18	68
AH	68	42	11	121
RR	31	4	8	43

The table shows that the AH text uses significantly more metaphors of primary experience than the other two texts having almost twice as many as PWG and nearly three times as many as RR. As a measure it serves as a guide to the scale of the use of primary experience in each text. The results show clear differences in scale between the three texts and so the method was deemed fit for purpose.

4.1.3 Response to the texts

The following section will look at the responses given to the texts at the RESOLVE conference attended by the author at which the AH and RR presentations were given. A panel discussion was held in the afternoon at which the invited members gave their comments on the conference. The transcript was analysed for direct and indirect references to the AH and RR presentations as a measure of the response to these texts (Excerpts Appendix E).

Table 4 Summary: Responses to Alternative Hedonism and Right Relationship texts

Text	Direct Ref.					Indirect Ref.					Total
	Speaker					Speaker					
	A	B	C	D	E	A	B	C	D	E	
AH	2	1	0	0	6	0	2	0	1	3	15
	Total				9	Total				6	
RR	0	0	0	2	0	0	0	0	1	1	4
	Total				2	Total				2	

The table demonstrates a significant difference in the number of both direct and indirect references made about the two texts in the panel discussions. The AH presentation is referenced in total nearly four times more than RR with significant differences in both direct and indirect references (4.5 times and 3 times more). It is also notable that 4 out of 5 speakers referred to the AH presentation whereas only 2 out of five speakers referred to RR. All the responses gave positive reference with one slight exception from Speaker E who raised a concern over the use of the word 'hedonism' and its relationship to 'entitlement'. However, the speaker acknowledged without prompt that this was not the way in which the author had used the term.

Whilst the figures indicate a clear difference in the number of responses it is not possible to determine the causation of this difference. The author would only offer the significant positive correlation between the scale of primary experience metaphors and the response rate as one of a number of possible contributing factors.

4.2 Modelling Discourse

This section will explain the modelling methodology devised as part of the research project. The starting point for the model came from David Grove's work on emergent knowledge (Clean Language website). This is a therapeutic process that allows the client and the facilitator to work with content in a space; clean questions are asked and knowledge emerges as the client moves around the space building up a network of different nodes. The elements taken from this process are shown below in Fig. 3 where A is the perceiver's starting position, B is the goal, C is the space between A and B, and D is outside that space. The adaptation for text requires the modeller to make far more assumptions than would be the case in a client-facing context. However, the purpose of the model is not therapeutic. The aim is to undertake a discourse analysis supported by the models of spatially arranged content and subsequently look for conduits to change.

The development of the process was influenced by Schon's (1991) work on reflective practice where the professional aims to combine '*relevance with rigour*' becoming a '*researcher in the practice context*'. The reflective practitioner understands that the problem frame is their own construction on the basis of the content and is not fixed, rigid or true. The modeller seeks a better understanding of the model by being present to the uncertainty and uniqueness of the context. The aim is not to fix the model or solve the problem, the aim is to open up the content frame to new perspectives.

A detailed metaphor analysis on the texts identified the elements required to build the models. For example, the goal destination was found by answering the question 'where does the perceiver want to be' or 'what does the perceiver want from the current context' which is not currently being achieved and the

metaphors of journey, destination, desire, attainment are all prevalent here. This technique allowed the modeller to discard any content which did not appear to relate directly to the necessary components of the model. It also allowed different positions to be tested out within the model to find the critical position outside the context of the problem frame which could open up the system to potential transformation. This is the 'all-seeing-eye' position and would be one of a range of possible perspectives that could be adopted in order to understand the model and facilitate change.

The framework for each model comprised of the following elements;

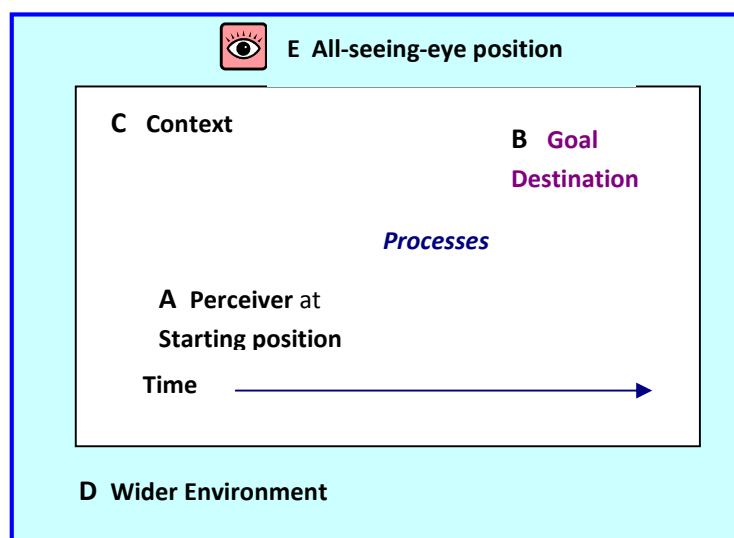


Fig. 3 Model Framework

Perceiver at A: this is the perceiver of the model. There may be multiple perceivers alluded to within a discourse for example each use of 'us', 'we', 'they', 'I', 'me' and 'you' can indicate a different perceiver but it is the perceiver of the desired goal who takes priority in the models which follow.

A Starting position: this is the starting position and answers the question 'where is the perceiver now?' This will normally be a position defined by time or position within a context. It is located in relation to the goal destination.

B Goal destination: this refers to the perceiver's goal destination. It answers the question, 'where does the perceiver want to be?' This will normally be located in relation to the starting position and the enactment of processes to enable the necessary conditions to overcome any intervening barriers.

C Context: this is the space in which the frame, problem or outcome is set. This can be in terms of a location, a specific time period, a relationship or a set of limitations. This answers the question, 'in what context does this model hold true?'

Time: in the standard model time advances from left to right as per the number line. In primary metaphor the past is behind us and the future is in front. In 2D representation past is normally to the left and future to the right. This does not have to be the case and individuals can have their own timeline metaphors. The timeline helps to answer questions about sequence, what happens before and what happens after an event? It assists the location of events on the path to the goal destination.

Processes: this relates to the conditions which are necessary for the goal to be achieved. This answers the question, 'what has to happen for achievement of the goal destination at B?' In the coaching process this is where binds and barriers are identified. As the modelling progresses, the perceiver becomes more aware of what is keeping them from achieving their goal and will look at alternatives to the present arrangement, reframing the context or redefining their goal.

D Wider environment: this is the space outside the context of the current frame. It answers the question, 'what lies beyond or outside of the current context or where this is not true?'



All-seeing-eye : this is the perspective necessary to see the whole of the context. This position allows the perceiver to see beyond the starting position and the desired goal. It is the position where possible transformation can be

recognised because the context has been opened up to alternative arrangements, perspectives or positions.

4.3 Models of environmental discourse on economic growth and sustainability

The metaphor analysis went through a number of iterations where content was systematically reduced to the elements described above. It is important to specify that although this is a somewhat subjective process the framework dictated what content was included. The content is also limited to what is presented in the text and no content has been added by the modeller.

Each model will be presented in diagram format and an explanation will follow for each.

4.3.1 Model of Right Relationship (RR)

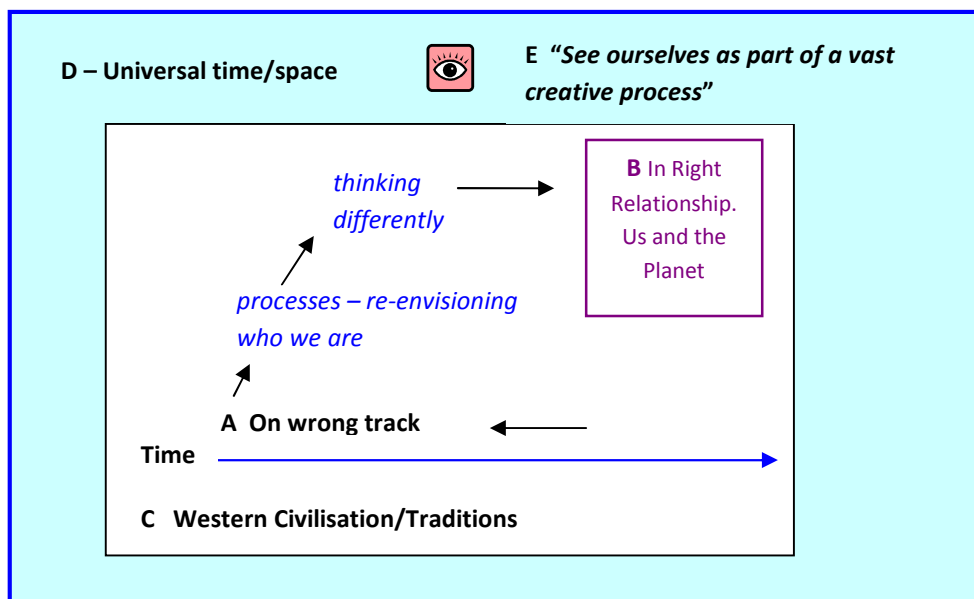


Fig. 4 Model of Right Relationship

Perceiver at A - ‘we/us’.

A – Starting position. “We” are perceived as being on the ‘*wrong track*’ and ‘*in wrong relationship*’ between “*us and the planet*” and this was referred to as ‘*backwards*’ which is indicated by the arrow going from right to left.

B – The desired goal is for us to be “*in right relationship with the planet*”. Right relationship is defined as “*that which tends to preserve the integrity and resilience and beauty of the common wealth of life and wrong if it tends otherwise.*” The box surrounding B is implied by the container metaphor of being ‘*in right relationship*’.

C – The context is set in the timeframe between the origin of western culture and the present day.

Processes – The processes required to move towards B are; “*to re-envision who we are... where we came from...citizenship... the economy... how to get on the right track ...and have a communion with things*”. An interim stage in

the model which would indicate progress would be that *'we were thinking differently about the economy and our relationship to the planet'*.

D – The wider environment accounts for the time it has taken for life to evolve in the universe. This wider perspective is stated in terms of *"14 million years"* and the view from *"14 million miles away"*.



E - All-seeing-eye - In order to get to B *'we have to see ourselves as part of a vast creative process ... on a small planet'*. This requires a perspective outside the context of western civilization. This is critical to the re-envisioning processes necessary for the desired goal.

Limitations to the Model

There is an inconsistency between time and direction. According to the presentation we are on the wrong path and going backwards and away from the goal destination. This does not mean that we are going back in time literally. The speaker states we have to go back to where we got on the wrong track. The logic of the model is consistent with going back in mental time/space to understand where we went wrong in order to correct our thinking.

It is not evident that 'Right Relationship' can be achieved within the current context as much of the presentation suggested methods to get on to the right track which are not in the current context such as *"global courts"* a *"global bank"* and many redefinitions of ourselves and our relationship to the planet. This could be seen as a fault with the modelling process or as a weakness of the discourse.

4.3.2 Model of Alternative Hedonism (AH)

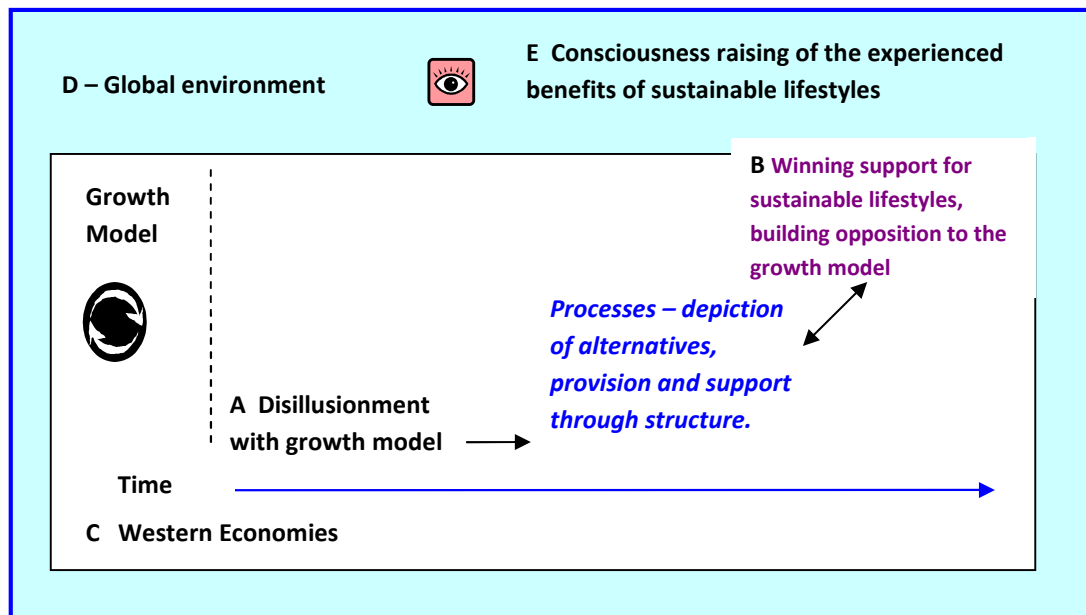


Fig. 5 Model of Alternative Hedonism

Perceiver at A - *'an ineffective minority'*.

A – Starting position is “*past the point at which the consumerist lifestyle enhances human happiness*”. This point provides “*anchorage through the embryonic presence of disillusionment...frustrated murmurings, regret, disquiet ...of an ineffective minority*”.

B – The desired goal is “*to win support for sustainable lifestyles ... to build opposition to the growth model*”. The Alternative Hedonism model is an example of the process at work. As there is an implied knowledge of what these sustainable lifestyles should be, the desired goal bridges the current context, where they exist only partially and the wider environment. It implies that the perceivers have this knowledge.

C – The context is set in the western economies that are structured around the consumerist, growth model.

Processes – the processes required to move towards B are, “*the depiction of the imagined and experienced pleasures of alternatives, shifting attitudes*”

towards work, consumption and leisure, new public provision for the Alternative Hedonism experience, new structures of feeling to be actualised and the extension of provision for self-policing.” The double headed arrow indicates that the processes would create feedback so that as more people experienced the benefits of a more sustainable lifestyle there would be more support for them and consequently more opposition to the growth model.

D – The wider environment includes a global perspective to include the ‘poorer’ nations.



E - All-seeing-eye. In order to get to B there needs to a ‘*raising of consciousness*’ in the forms of “*social transformation and personal epiphany*”. This requires a perspective outside of the context of the western consumerist growth model as it includes the concept of fairness towards other “poorer” nations. The perspective implies that the consciousness is being raised to a level that is already being experienced through alternative lifestyles.

Limitations of the model

The goal definition could be seen as part of a wider process towards the achievement of a “*low-growth sustainable economy*” and this is stated in the discourse as a desired goal. In the final iterations this was not included as the processes to achieve this end could not be elicited fully from the text and the focus appeared to be more on winning support than on the macro-economic tools with which to achieve low growth. Following on from the metaphor analysis it was seen that the presentation focussed much more on the embodiment of experienced benefits of Alternative Hedonism than the economic growth model and its rationale.

The final model does not capture the “*paradox at the heart of the growth model*” which was included in earlier representations. This was excluded in the final round to respect a coaching principle which is to stay out of the problem (www.cleanlanguage.co.uk). This means that the model represents the landscape for those who have already experienced some disillusionment. The majority who are caught in the paradox would need a different model. The model does not presume that the majority within the paradox have a desired goal outside of the consumerist, growth model.

4.3.3 Model of Cognitive Polyphasia (CP) *

* Cognitive Polyphasia “*the ability to hold simultaneously two completely conflicting views*” (Tim Jackson, RESOLVE Conference 18-6-09)

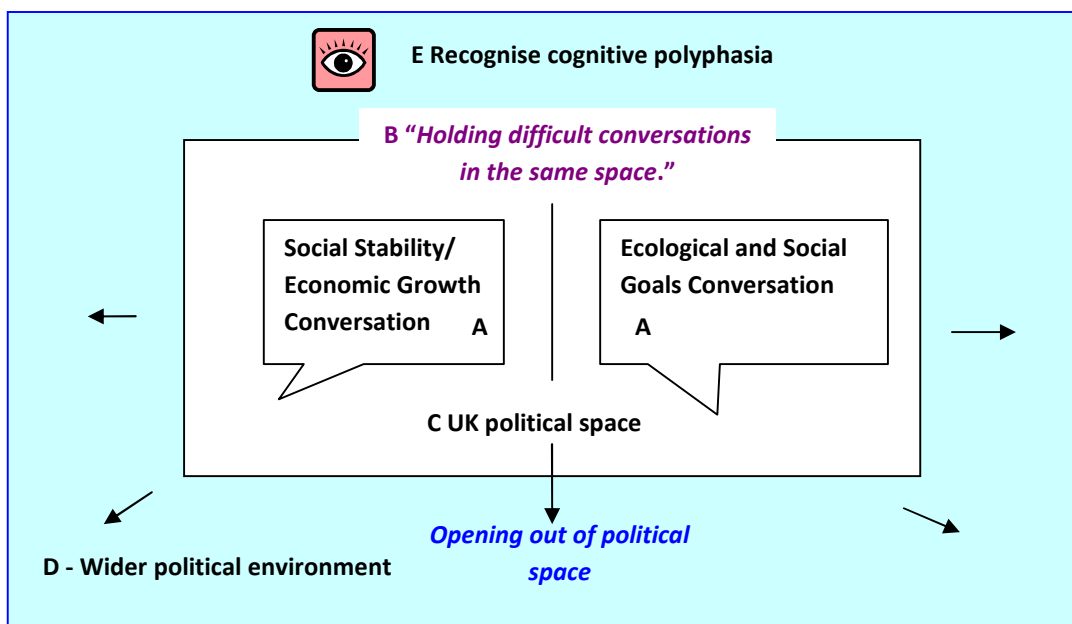


Fig. 6 Model of Cognitive Polyphasia

Perceiver at A – ‘we’ ‘*the public*’ and ‘*in government*’

A – Starting positions are at A in two different conversations – one about the “*necessity of economic growth for social stability*”, the other about “*ecological and social goals*”. There is not A1 and A2 as these positions can be maintained simultaneously and the text makes no inference as to which has or should have priority. The positions are in different spaces but within the same current context.

B – The desired goal is “*to hold these two difficult conversations in the same space*”. The position of B bridges the current context and the wider political environment as it is the current context which is causing a barrier to the solution ie. the conversations are not taking place in the same space.

C – The context is the current UK government structures or political space.

Processes – The process required to move towards B is “*the opening out of political space to allow these conversations to occur*”.

Time - The time sequence has not been included as this is a snapshot of the current context and the need for this to occur is in the “*immediate present*”.

D – The wider environment is a political environment where these conversations are not taking place separately and where there is no cognitive polyphasia.



E - All-seeing-eye. In order to get to B the existence of “*cognitive polyphasia*” has to be recognised by the perceivers at A. The perspective which allows this is outside of the current political context where the conversations are separate. When taking this position the perceiver can identify the problems caused by the current situation.

Limitations of the model

The model is limited to a snapshot in time and does not represent what is expected after the goal has been achieved i.e. when these two conversations are held in the same space. It is also limited in terms of the details of the processes by which political space is opened up. This is a consequence of this being a shorter piece of text to analyse and the format being closing remarks rather than the longer presentations given in the other two cases. There is an implicit assumption in the model that the perceiver understands and can recognise cognitive polyphasia.

4.4 Summary of Results

A qualitative comparison was undertaken using the specific metaphors of economic growth and the constructed models. After three iterations the metaphor analysis produced a measure of primary experience within each text which accounted for metaphors of embodiment, primary emotion and social emotion. This allowed the three texts to be compared quantitatively as did the measure of responses to each text by the panel members.

The modelling methodology produced three models of discourse from the selected texts. This represents a success given that this was an exploration into the potential of using these techniques. The limitations of each model were discussed which raise further questions to be addressed in the discussion.

Chapter 5, DISCUSSION

In this section the results will be discussed in light of literature and any new insights which have emerged from the research. The discussion will be split into three main categories:

- Metaphor Analysis – What is it good for?
- Modelling Discourse – Why arrange content in space?
- Economic Growth and Sustainability – Which way now?

5.1 Metaphor analysis – what is it good for?

When applying the analysis to a specific area such as economic growth metaphors allow a meta-perspective on what is being said. This creates, as Dryzek (2005), Harre (et al 1999) and Hajer (1995) advance a way of adding reflexivity into the discourse. Analysing the metaphors and the underlying conceptual frameworks enables the perceiver and audience to relate back to the mental models from which the discourse has been constructed. The themes around economic growth in each discourse were very different and this difference may be one issue surrounding the public engagement with environmental discourses. If actors who share similar environmental goals use a range of inconsistent metaphors for just one part of the issue, in this case economic growth, it is difficult to see how understanding can be enhanced. In the same vein, one could question how the public would be expected to engage with environmental programmes that are inconsistent with their primary experiences. The research does not indicate a definitive answer but demonstrates that a dialogue between the actors promoting sustainability with regard to metaphor might enhance public engagement.

The coding of metaphor into a scale of primary experience proved useful for a comparison of texts. Further research would be required to test this methodology using multiple researchers and multiple texts. As the results stand, they provide a starting point for analysing metaphors of primary experience and measuring texts according to their usage. Another possible avenue of research would be an expanded comparison of primary experience scales to audience response rates. The sample in this study was too small to draw any conclusions but the results indicate a potentially strong correlation between the scale of primary experience in a text and the response rate from the audience.

5.2 Modelling discourse – why arrange content in space?

The modelling process developed as part of the study makes use of space as an arranging medium for mental models but what is the advantage of doing this? Firstly, this process makes implicit content, hidden in mental models, explicit. Once explicit, the model can be analysed, corrected, improved or even abandoned if it is seen to be ineffective at reaching the goal destination.

As stated in literature, mental models and frames provide frameworks, structures and conduits for understanding. These metaphors imply that space is a fundamental element in cognition processes. Supported by the findings from David Grove's work (www.cleanlanguage.co.uk) space matters when it comes to understanding. What is invisible in speech from the use of implicit metaphorical terms can be made explicit in the spatial arrangement of content. For example, where the goal destination of 'economic growth' lies in the opposite direction of the goal destination 'well-being', how can the perceiver advance towards their goals? The situation demonstrates an explicit, physical choice towards one and away from the other. This directly relates the non-

physical in terms of the physical and can assist in eliminating conceptual impossibilities from the discourse which again could enhance public engagement.

5.2.1 Mental models and systemic thinking.

Senge (2006) makes it clear that learning to think systemically is not enough for organisational learning. Success depends upon understanding the mental models of the perceivers in charge of decision-making. The implicit information held in mental models which prescribe assumptions, beliefs, values, identity and behaviours determines how systemic thinking is put to use, or not. It remains to be seen whether actors in a system are prepared to share their mental models. The research provides a methodology which would benefit from further testing and could be applied to other forms of text.

5.2.2 Beyond narrative – goals vs problems

A clear benefit of the modelling process is the spatial orientation towards a goal destination. This corresponds with research on shared visions where,

“Shared visions have a specific set of functions in aligning interests and framing problems.” (Berkhout 2006).

By making the goal destination explicit in each text it allows the modeller to dispense with much of the narrative of the problem. Epistemological, historical and biographical positions take up much of the time and resources in frame-setting. Considering it is often the problem frame which is limiting the potential for change (Watzlawick et al 1974) there is some justification for reducing the effort spent in re-iterating the problem frame. The process of

representing the system explicitly in a space changes the orientation of the perceiver within the problem-frame. This structural view allows system-level change addressing the '*underlying causes of behaviour*' (Senge 2006). Einstein summarises neatly,

"We can't solve problems by using the same kind of thinking we used when we created them."

Modelling makes this an explicit process by eliciting more than just the problem-setting process and the problem frame. The goal destination focuses attention towards the binds, impasses and barriers that the problem frame has created. The all-seeing-eye position allows other positions to be taken which can transform the problem-frame and release the perceiver to progress towards the goal.

5.3 Economic growth and sustainability – which way now?

In this section, the metaphors of economic growth will be discussed first. Following this, the focus will be on the conduits to change proposed by each text and the possible consequences for policy.

5.3.1 Economic growth the good, the bad and the ugly

In the Right Relationship text, the metaphor of '*too big*' could be inconsistent with other primary metaphors (Lakoff and Johnson 1980) and primary experiences (Narayanan et al 1997-9) '*more is better*' and the physical experience of growing up and getting bigger being advantageous to the organism. Economic growth was not dealt with explicitly and instead is

incorporated in the re-envisioning processes necessary for 'Right Relationship.' It is not evident from the text how re-envisioning processes work on an economy that is '*too big*'. The metaphor of '*re-envisioning ourselves and the planet*' and '*embedding the economy in the earth and its biological processes*' may be consistent from the all-seeing-eye position but would need further elaboration. The constraint of time on the presenter could have been at issue here.

In the presentation of Alternative Hedonism (AH), the metaphors used were found to be consistent with growth being undesirable and even '*ugly*'. The use of primary metaphors aligning growth with sickness is consistent with Lakoff's (2008) primary metaphor '*morality is healthy*'. Therefore more growth is consistent with the idea that growth is undesirable because more growth represents more sickness. The presentation used metaphors of attraction to pleasure and repulsion away from pain, thus avoiding much of the 'up/good, down/bad' orientation of primary metaphor. This meant that the conceptual inconsistencies around the 'less is more' ideals of sustainability were also avoided.

In Cognitive Polyphasia (CP) economic growth is consistently represented as being both good and bad. The metaphor works at a higher level than the two separate views of economic growth as being one or the other. A similar theory is proposed by Lakoff's (2008) work on US political discourse and is called 'Biconceptualism' where voters can have two contradictory political worldviews which alternative between metaphors of the strict parent or the nurturing family.

The representation of economic growth as both good and bad produces the same impasse as is represented by the generative metaphor Cognitive

Polyphasia and therefore appears isomorphic with the internal model. From a primary metaphor perspective it raises the question, when something is both 'good' and 'bad' for us what do we do? The metaphor is useful in generating this question but there is no guarantee that the condition of cognitive polyphasia will be understood, recognised or accepted and in the worst case scenario denial of such a condition may entrench positions further. This may illustrate one of the issues of taking a metaphor from one domain and applying it to another (Jeffrey and McIntosh 2006, Mitchell and Sarin 2008).

5.3.2 Conduits to sustainability

Each text presented a very different conduit towards the specified goal destination. If the objective of the discourse is to bring about change through enhanced understanding of the context (Dryzek 2005, Fairclough 2003) then the importance of the 'all-seeing-eye' position becomes paramount. Metaphors of perspective demonstrate this phenomenon where a person may need to 'step back' or get an 'overview' and to see more of 'ground reality' a person has to move to higher ground. These infer taking different positions in a space. The modelling process initiates the process of moving into a different contextual frame explicitly by looking for the perspective which allows the problematic organisation to be viewed differently.

In the Right Relationship model, the all-seeing-eye position goes back 14 million years to see processes which created the earth. This requires a massive dissociation on the part of the perceiver and may not be possible. It assumes that the perceiver understands, believes and can imagine these '*vast creation processes*'. Pictures from the Hubble telescope were shown as part of the presentation which may have assisted the process for the audience. However, this perspective would be a challenge to maintain on a day-to-day

basis and as a conduit to change would be unlikely to have an impact on policy.

For the '*consciousness-raising*' required in the Alternative Hedonism model, the all-seeing-eye position is located outside the current context of Western attachment to the growth model. The implication of consciousness-raising is that the entity/entities doing the 'raising' have achieved higher consciousness already. The text implies that the disillusioned minority having found alternatives which enhance well-being have undergone processes of '*social transformation and personal epiphany*' leading them to higher states of consciousness. Setting this position in a global context it also allows the perceiver to incorporate other ideals of fairness towards '*poorer nations*' which may be a pre-requisite to '*higher consciousness*'.

In this model the conduit to change is through the disillusionment experienced by perceivers with '*work-driven lifestyles*' and the '*growth model*'. What is in question within the model is the process towards disillusionment for the majority of perceivers who are not disillusioned. As a conduit to policy change, it is difficult to see how an argument based on the perceptions of a disillusioned minority would drive large scale institutional change. However, the discourse itself aims for improved provision and more support for alternatives not fundamental changes to economic policy.

Finally, the Cognitive Polyphasia model was explicit about the goal destination and the current context. The all-seeing-eye position bridges the current context and the wider environment whereby the perceiver must become aware of the contradictions of their spontaneously held views on ecological, social and economic goals. The goal destination does not make assumptions about

what happens as a result of this self-awareness but does assume that the perceiver can recognise and accept the condition of CP.

With respect to policy-making, CP was also the most explicit, as it refers to the political environment and the need for these difficult conversations to happen within government as well as in the public domain. It does not say what the policy outcomes will be but it implies that overcoming the conversational impasse is a pre-requisite to policy change surrounding the dilemma of economic growth and sustainability. Within the text the speaker said '*dissolution of the old structures*' would be necessary. As a conduit, dissolution of existing structures would seem an ambitious target and it is not clear from the model or the text how opening up political space will achieve either this or the recognition of cognitive polyphasia. As these were concluding remarks this is not a criticism of the discourse or the model but indicates the need for further elicitation and that the model could provide a starting point for the process.

The key findings from this section will be summarised as part of the conclusion and with respect to the aims and objectives of the research.

Chapter 6, CONCLUSIONS

In this section the aim is to revisit the stated aims and objectives (Table 1 p32) of the project and evaluate the degree to which these have been delivered.

***The aim of the project:** to explore the use of metaphor in the current environmental discourse surrounding economic growth and sustainability by constructing and analysing models of selected texts within the discourse.*

The overall aim was met. The metaphor analysis and the subsequent models produced provide a starting point for discussions on both modelling as a tool for discourse analysis and the issues surrounding economic growth and sustainability.

Objectives:

- *To explore the use of metaphor as a tool to assist understanding.*

The literature provided many examples from linguistics, cognitive science, psychology, sociology, economics and neuro-biology which suggest that metaphor has a significant role to play in human understanding. The evidence indicates that conceptual frameworks are metaphorical in nature. Understanding is predicated on how we interact with the world and this is defined and structured by the way our bodies and environments interact. Therefore, human cognition must be understood by all of these elements acting systemically. The multi-disciplinary approach to human cognition advocated in literature and in practice was supported by this research.

- *To explore which metaphors are being used within the discourse on economic growth and sustainability.*

The metaphors of primary experience were collected and measured thus achieving an objective of the research to demonstrate this possibility. A second measurement of response to the texts at a discursive event highlighted a possible application for these measurements and would be an interesting avenue for further research. Another objective was achieved in that the metaphor analysis assisted the construction of the models by identification of metaphorical concepts such as goal destination, frames and contexts.

The analysis of the metaphors in use produced different themes around economic growth in relation to the goal of sustainability. Economic growth was seen as bad in terms of the paradox it produced trapping people into environmentally damaging consumerist lifestyles. It was also represented as bad in terms of its ability to overwhelm natural systems and both good and bad in terms of it being necessary for social stability but contradictory to environmental goals. The consistency of the metaphors used in relation to primary experience varied both within and between the texts.

- *To apply therapeutic modelling concepts to an analysis of discourse.*

The therapeutic modelling techniques were easily adapted to discourse analysis. Arranging the content spatially, using a standard model allowed the critical aspects of change to be the focus. This highlighted the perceiver(s), starting position(s), a defined goal destination, the current context, time sequencing, enabling processes, the wider environment, alternative perspectives outside the context and possible conduits towards the desired

goal. However, the project only produced three models and as such is a very small sample. Future research would benefit from taking a much wider sample of discourses and having multiple modellers to triangulate and further improve the modelling methodology.

- *To investigate the potential use of the selected conceptual frameworks as conduits towards more sustainable lifestyles through behaviour change or policy.*

The investigation of the selected conceptual frameworks as conduits towards more sustainable lifestyles raised further questions requiring further research. As an exploration of the subject of economic growth, the study illustrates the range of perspectives coming from a small cross-section of those already committed to the broad goals of sustainability. The diversity of goals, frames and conduits to change may be proving too complex for both policy-makers and the wider public to engage with. The research confirms findings in literature regarding the need for reflexivity in discourse and more dialogue across discursive boundaries to enhance understanding and promote consensus-building.

The research suggests that given the increasing urgency of the likely consequences of climate change it may be advantageous to abandon narrative methods of discourse which focus on problem-setting and problem-framing. Resources could be used more effectively by making the conceptual models of discourse explicit and then sharing the resulting insights on possible conduits to transformation. A focus on goal destination would, at the very least, highlight the variance between the perceptions of where we want to be and by what means we will get there.

In summary, the aim and objectives of the research were met. As an exploratory piece of research it has succeeded in gaining new insights into the use of metaphor in environmental discourse surrounding economic growth and sustainability.

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Appendix A Principles of Symbolic Modelling

From Metaphors in Mind (Lawley and Tompkins 2000).

An Individual's system works perfectly at doing what it does

- It does what it does because it is organised to do so. It simply cannot do something it is not organised to do, no matter how desirable that may be.
- Since the organisations of a client's metaphorical expressions is isomorphic with the organisation of their cognition, self-modelling their Metaphor Landscape allows them to explore and learn from the organisation of their cognition.
- Each component of a system performs a function which affects other parts of the system and contributes to maintaining the existing organisation.
- The processes that result in limitations and constraints are the same as those that generate creativity, learning and loving, It is not the processes themselves, but how they are organised and utilised that determines whether there is a problem or not.

Metaphor landscapes evolve as appropriate conditions arise.

- The process of a client self-modelling the organisation of their metaphor landscape – becoming aware of symbols, relationships between symbols, and patters across perceptions – create a context for change. Change itself is a by-product of self-modelling symbolically.
- While clients always have the capacity to change and evolve, when bow and why a particular metaphor landscape reorganises is inherently indeterminate. There are however, conditions which increase the likelihood of significant change occurring. These principally involve the system learning about its own organisation.
- Binding patterns such as paradox, conflict, dilemma and impasse will be operating when a client has experienced repetitive unwanted symptoms over a period of time despite their desire and best efforts to change.
- A translation which reorganises the form of the existing metaphor landscape will, more often than not, satisfy the client's desire to change. When it does not, a new landscape with a transformed pattern of organisation will be required.

Facilitators need to operate from a state of 'not-knowing'.

- You can never know another person's experience or even fully understand their description of their perception, because to do so invokes your metaphorical constructs. What you can do is build a model which has a corresponding organisation (is isomorphic) with their metaphor landscape; but it will always be your model of their descriptions and behaviours.
- Symbolic modelling involves working with emergent properties, fuzzy categories, apparently illogical causal relations, multiple levels of simultaneous and systemic processes, iterative cycles and unexpected twists and turns. In short, especially during the early stages, the client's information is intrinsically unpredictable and messy.
- Symbolic modelling is a dynamic process and your model of the client's model will require continual revision as each new piece of information emerges – especially as their landscape may well start changing before a comprehensive model has been identified.
- You can rely upon the intelligence and wisdom of the whole system (i.e. the combined conscious and unconscious mind-body-spirit that comprises you, the client, their metaphors and the immediate environment) to indicate what needs to happen at each and every moment in time. This requires you to stay true to the process, especially if you feel confused, lost, helpless or hopeless. In other words, when you do not know what to do, the system knows.

Symbolic modelling requires clean facilitation

- Analysis and interpretations of the meaning of symbols by the facilitator is counterproductive because it distracts the clients attention from their own perceptions. Instead you can accept clients' metaphoric expression as perfect examples of their patterns manifesting in the moment.
- You can facilitate clients to self-model their embodied symbolic perceptions by accurately referencing their verbal and nonverbal metaphors, and by asking clean questions within the inherent logic of their metaphors.
- Neither you nor the client can make, induce, trick, reframe or otherwise cause a transformation. While you are continually triggering responses in the client's system, all responses and changes are specified by the particular form and pattern of organisation of the system (not the trigger). Therefore there is no need for you to make something happen or to solve anything; rather your aim is to encourage the appropriate

conditions in which change is the specified response. These conditions will exist within the inherent logic of the metaphor landscape.

Appendix B Clean Language Questions (Lawley and Tompkins 2000)

The function of Clean Language

- To acknowledge the client's experience exactly as they describe it.
- To orientate the client's attention to an aspect of their perception.
- To send the client on a quest for self-knowledge.

Table 5 Clean Language questions (abridged)

<i>Identifying</i>	And is there anything else about (client's words)? And what kind of (client's words) is that (client's words)?
<i>Converting to metaphor</i>	And that's (client's words) like what?
<i>Locating</i>	And where is (client's words)? And whereabouts (client's words)?
<i>Moving time forward</i>	And then what happens? And what happens next?
<i>Moving time back</i>	And what happens just before (client's words)? And where could (client's words) come from?
<i>Eliciting the desired outcome</i>	And what would you like to have happen?
<i>Distance</i>	And how far is.....?
<i>Direction</i>	And in which direction is does.....?
<i>Inside/outside</i>	And is Inside or outside?
<i>Perceiver</i>	And where is (perceiver) (perceiving word) that from?
<i>General</i>	And is there a relationship between (X) and (Y)?
<i>Space</i>	And what's between (X) and (Y)?
<i>Intention/Condition</i>	And what needs to happen for (X) to Intention of (Y)? And can (X) happen?

Appendix C Epistemological Position and Reflexivity Statement

The epistemological position clarifies the author's suppositions about the basis for knowledge (Harding 1987, cited in Henwood 1996). Within science and particularly between the natural and social sciences there has been a long history of debate concerning epistemology. These '*science wars*' (Flyvbjerg 2001) as they have come to be known, centre around the construction of arguments, truths or other forms of what might be termed knowledge. This has led to a proliferation of epistemological positions which define possible perspectives on knowledge accumulation. These theories include but are not limited to positivist, materialist, functionalist, relativist, conflict theories, symbolic interactionism, social constructivism (Robson 2002), phronesis (Flyvbjerg 2001) and actor-network-theory (Latour 2000). They provide frameworks with which to formulate research questions. According to Harding it is necessary for a researcher to pinpoint their position within the field.

Symbolic modelling and Clean Language are premised on the ability of a client to 'bring forth' their model of the world. This comes from ideas that relate to experientialism (Lakoff and Johnson, 1980), the Santiago Theory of Cognition (Maturana and Varela 1993) and constructivism in psychology (Snyder and Mahoney 2003, Mahoney 1991). As a researcher and practitioner of symbolic modelling I accept this as a starting position. What is also useful in positioning this research is the third operating principle of symbolic modelling (Lawley and Tompkins 2000) whereby facilitator's need to operate from a state of 'not knowing' (Appendix A). This relates to the impossibility of knowing another person's experience. Therefore, whatever model is produced is subjective and therefore has no inherent or objective truth.

One final point to add is some background to the author which has directly impacted the research methods and materials. Although the research investigates people, society and discourse the author is not a psychologist, a

sociologist or a linguist. The drivers behind this research and its focus on metaphor comes from the author's experience using metaphors in education and business. A masters degree was undertaken with the specific intention to conduct a more rigorous application of these principles within an academic environment. Therefore, this research is motivated by a practitioner's desire to improve on current understanding in both the methodology and the possible applications in line with Schon (1991)'s research on the reflective practitioner. The lack of formal training in any particular discipline assists the author in coming from a position of 'not knowing' as there is no specific school of thought being adopted.

Reflexivity Statement

A reflexivity statement is provided to identify possible areas of researcher bias as suggested by Robson (2002 abridged from Ahern 1999)

My beliefs are contradictory to the assumptions of ecological modernisation whereby economic growth is coupled with development and sustainability is seen as achievable within current institutional models. These subjective views have directed my attention to the research topic and the selection of the text which seeks to change the mainstream views on economic growth. This could be an area of researcher bias whereby I seek to promote the discourse rather than analyse it. However, the aim of the research being undertaken is to explore the consistency of this discourse with regards to experience. The success of the project depends upon my ability to do this from a place of neutrality. This is one of the fundamental principles of Symbolic Modelling. However, it must be accepted that the subjectivity of the modeller will always exist and the facilitator's model holds no objective truth.

Appendix D Ethnographic Report

This report is produced as a record of participant observation at the RESOLVE conference 18th June 2009 at the New Connaught Rooms, London. Below is an excerpt from the invitation which was originally sent to the author's supervisor:

Sustainable lives? The challenges of low-carbon living in a changing economic climate

Thursday 18th June 2009 — New Connaught Rooms, London WC2B 5DA

You are invited to a unique one day event hosted by the ESRC Research group on Lifestyles Values and Environment (RESOLVE), featuring cutting edge research, high profile keynote speakers and policy relevant panel discussions.

The conference was over-subscribed and the attendees were predominantly from academia. The quality of the conference can be demonstrated by the seniority of the speakers and chair; Lord Giddens, Angela Eagle (MP), Tim Jackson (SDC). There were representatives from Government departments, DEFRA, DECC and NGO's.- Green Alliance,

The RESOLVE ethos is 'to combine academic excellence with policy relevance.' Research findings were presented in the morning sessions and participants were given a number of choices for each slot. The details available before the conference did not make it easy to know what each session entailed. I attended

Session 1 - Beyond Behaviour – methods for researching sustainable lives

Session 2 – Policy Paradigms – governance for sustainable living.

As presentations of research these did not provide suitable data for analysis.

The afternoon session, 'Policy Symposium: Low Carbon Living in a changing Economic Climate' proved much more interesting to the project. The key-note

speakers had been set up to reflect opposing views although it was maintained in the discussion that this was more a rhetorical device used by the conference organisers than a real opposition. Although the speakers were hurried due to a lack of time, the presentations provided the project with two complete arguments directly related to economic growth and sustainability and it was easy to select these parts of the conference as the most suitable to the project.

In the closing remarks by Professor Tim Jackson there was a serendipitous bonus as he gave an update to his report based on direct feedback he had received. This proved to be a vital element to the project as it provided a dynamic view of the situation as represented by the author through the use of the explicit, generative metaphor Cognitive Polyphasia.

As a participant at the event, I chose to observe from a distance keeping as neutral as possible with respect to the speakers and participants at the event. The atmosphere was congenial and for the most part positive. From an observer's perspective I got the impression that the group were highly informed and for the most part committed to low carbon lifestyles. What was not clear was any consensus on what this would look like or how this was to be achieved. A number of speakers and participants raised the need for visions of sustainability as an urgent requirement. Again, there was no consensus as to who should produce these but suggestions included, social scientists, government and wider society in terms of individual and mass social transformation.

In summary, the event proved essential to the project in terms of providing primary data. This was an event run by academics for academics and although the attendance of government representatives demonstrated a

commitment to policy relevance there was no indication of actual change as a result of the event. The emphasis was clearly on research and the use of research in policy.

Appendix E Annotated Excerpts From Transcripts

Excerpts from Right Relationship

I am going to offer basically a moral conceptual argument for thinking differently about economics and our relationship to the earth. And my work is very influenced,,,, there are five of us contributing to this volume. I was the senior author but it was very much a team ...and we were very much influenced by

Aldo Leopold's work, an american conservationist who wrote a very ... an almanac published in 1949 and we took the notion of a right relationship from a section of that book called the Land Ethic. And we modified it somewhat but the basic idea we have about right relationship is what's shown on the screen here. A thing is right if it tends to preserve the integrity and resilience and beauty of the **common wealth** of life and wrong if it tends otherwise.

So um,one way to figure out what right relationship is, is to figure out what wrong relationship is and this is em the tar sands (picture) project in Alberta, Canada, this is exactly the wrong way to do, this is an extremely damaging way to get oil, Looked at ecologically this is extremely efficient from a thermo-dynamic point of view, natural gas is used to heat water to extract very heavy, dirty oil from sand erm and the a very substantial carbon dioxide emissions connected simply the extraction of the oil from the sands let alone the burning of it. So this is pretty much backwards. Right relationship is a common sense notion, you can have a right relationship with your wife, with your employer, with your city, right and with your planet. And we think that right relationship should be the way we think about our relationship to the planet and about how there can be mutual prospering so that for example in a marriage both parties can flourish and develop and grow and become more thoughtful and sensitive persons and you can have a relationship with the planet where we benefit and the planet benefits us in a manner of reciprocal respect. So I want to, **I think** that **our society** is basically in a fundamentally wrong relationship with the planet and it's

biological processes and I want to make four major points about how to get into right relationship with the planet and its life processes. So I want to talk first about how we got on the wrong path, second how to reenvision who we are, third what the implications for this would be for the economy and then lastly what we can do as individuals to get on the right track.

How we got on the wrong track I think, goes back to the origins of western culture and very influenced by Albert SXXXXX of Civilisation where he says the **western tradition got off on the wrong track** because it asked the question what's good for humanity as opposed to what's good for life. So we started with too narrow a question and it's **been channeling our thoughts and activities** since then erm the moral traditions that have informed western culture both from judeo-christian sources or Greek sources are pre-scientific but there have been no significant adjustments in those traditions in an explicit way since the scientific revolution of the last several hundred years and our situation is very much like a wonderful scene in the movie 'Magic Christian' by Peter Sellers where he's the richest man and he's conducting a board meeting on a train and everything with the company is going wrong and the sales are down and the profits are down and so forth. And he says, 'gentlemen, you are all fired' and you have to get off the train. And the train stops in the middle of nowhere and as they get off he hands each of them a map right and but it's not a map of where they are it's a map of Australia, San Fransisco, a map of Coastal Maine and that's where we are as cultures, in my opinion, that we have moral maps, or maps of morality but they're not maps of where we are, right, so we are ethically in a very fundamental way lost.

A second, the Western tradition gets off with too narrow a conception of morality right the good Samaritan story which is known by vitually everyone in the room, I'm sure, is a story of obligations between humans only and if you recall it comes from a parable from Jesus where he answers the question 'What do I have to do Master, to gain eternal life,' and Jesus gives the two commandments and I'll come back to that at the end of my talk. And thiseternal life, and I have a picture of it so if you've never seen it before, hang on , 15 minutes from now you will see a picture of eternal life (laugh)

Other ways of getting further back ...the rise of science and power over nature as opposed to understanding nature and then the enlightenment conception of the human as the only rational being - caused a further problem and then the last blow brought us to the present inchoate state was the collapse of our value structures and the collapse of meaning what the French sociologist has before called decivilisation.

So what I'm proposing to do is to change the question, how would we live if we changed the question from How can we best dominate and use nature to how can we live with an ethics of respect and reciprocity towards nature and the earth. And I think if we change the question we might be able to open up our hearts and minds to a moment of grace and that would help us rethink citizenship, rethink the economy, and our personal role in the future of a flourishing earth.

Excerpts from Alternative Hedonism

These developments are indicative of the **paradox at the heart of the growth** economy, - an economic system that can **only flourish** if people keep spending, which means that they must keep working, which means that they have less time to do things for themselves, which means they have to buy more goods and services to make up for the time deficit. This is a dynamic that tends to the elimination of straightforward and inexpensive forms of gratification, only then for companies to profit further through the provision of more expensive compensatory modes of consumption for those who can afford them. The leisure and tourist industry has increasingly tailored its offerings to the overworked, with holiday breaks that promise to make good the loss in 'quality' time (this is from the brochure for one such provider):

For those of us **with huge overdrafts at the Bank of Hours-in-the-Day**, the real luxury is time. Time with the kids, phone switched off. Or time for yourself, to read and

relax in peace. Luxury is a long lunch recovering the person you love, or a gourmet dinner with friends, cooked to order and served by your own private pool. It's me-time. Family time. The elusive holy grail of modern life.

Then there is the extra you often now have to pay for **dealing with a person rather than a machine**; the speed dating and Wife Selecting agencies that promise to make up for your loss of the arts of loving and relating; the multiplication of gyms to which people drive in order to do treadmill running in cities where, because there are so many cars on the street, they no longer find it pleasant or safe to walk or run. (In Los Angeles, as dusk falls, the multi-storey gyms are packed, the streets ominously empty).

The consumer society, one may therefore argue, is now becoming increasingly dependent for its continued flourishing on our collective preparedness to spend the money we earn by working too hard and too long on the goods which help to satisfy the goods we have **increasingly sacrificed** through over-work and over-production. What is more, it would appear very likely that if we are incapable of **springing this trap**, and **reverting to a more rational order**, we are destined for ecological collapse and all the social horrors that will entail.

It is in this context that I have been pressing for what I have termed the 'alternative hedonist' approach to **winning support** for sustainable lifestyles and for forms of governance promoting them. This responds to the current situation not only as a crisis, and by no means only as presaging future gloom and doom, but as offering an opportunity **to advance beyond** a mode of life that is not just environmentally disastrous but also in many respects **unpleasurable and self-denying**. Alternative hedonism is premised, in fact, on the idea that even if the consumerist lifestyle were indefinitely sustainable it would not enhance human happiness and well-being (or not **beyond a certain point that has already past**). And it claims that it is new forms of desire rather than fears of ecological disaster that are likely to have most impact in any move towards more sustainable modes of consuming.

The **seductive depiction of alternatives** to resource-intensive, polluting and unhealthy consumerist life-styles is therefore critical not only to the meeting of current commitments on climate change, waste management and environmental regulation, but also to **building any more substantial opposition** in the future to the economic governance of our times.

In sum, a counter-consumerist ethic and politics should **appeal**, not only to **altruistic compassion and environmental concern**, but also to the **self-regarding** gratifications of consuming differently. And it should seek its democratic anchorage and legitimation for these claims, and for its projections of the attractions of a postconsumerist lifestyle, in the already **existing forms of ambivalence** about consumer culture that I have outlined.

By focussing on these new developments and shifts of feeling in constituting an immanent critique of consumer culture, the 'alternative hedonism' perspective aims to **avoid the moralising about 'real'** needs that has often characterised earlier critiques of consumer culture.¹ It **engages with ambivalence or disaffection towards consumerism** as this comes to the surface and finds expression in the sensibility or behaviour of consumers themselves. The concern is not to prove that consumers 'really' need something quite other than what they profess to need (or want) – a procedure which is **paternalistic and undemocratic** – but to reflect on the **hedonist aspirations** prompting changes in experienced or imagined need, and their implications for the development of a new electoral mandate for the forms of **self-policing** essential to sustainable living.

Excerpts Cognitive Polysphasia

It is about, we can afford about a quarter of the economic output that we have if we were to allocate that budget on a per capita basis if advanced economies were to remain at their current carbon intensity. So anything that we do above a quarter of

¹ Cf. Daniel Miller, 'The Poverty of Morality', *Journal of Consumer Culture*, Vol.1, no. 2, 2001, pp.

the current economic output relies on the fact either that we are taking carbon from someone else's allocation in the world or that we are expecting massive, massive changes in the carbon intensity involved in economic output in the next 20 years so that probably by 2050 we actually have an economy where we are taking carbon out of the atmosphere.

That's the scale of change - I just don't see the dialogue, I don't see where that enters the public debate at the moment, there is a lot of talk about fairness and it clearly is an issue about fairness and there's a lot of talk about technical improvement and technical improvement is clearly important but it does seem to me what we are facing in a way is a degree of what I recently heard described as cognitive polyphasia - the ability to hold simultaneously two completely conflicting views at the same time and to none the less to go

(some laughter)

on regardless. It does seem to me that is where we are and it is a cognitive polyphasia out there in the public it is also a cognitive polyphasia as a minister recently said to me in government. And it is potentially, paralyzing, It is a point at which our worlds and our understandings of the world begin to disintegrate, they have the potential to disintegrate.

And that brings me on to the final point, It was brought home to me by a couple of people who reflected on PWG and they were very, very interesting reflections because they came from rather odd left-field places. The first one was from a manager in a hospice and he was responding to the arguments that have been rehearsed today about the illusory consolations of consumerism and he said I recognise that as a profoundly resonant echo of what I meet every day of the doors of the hospice. I find people who are in all sorts of suffering, some of that is physical, some of that is emotional but the biggest thing in a way, the hardest thing that people find to deal with is the understanding that all the cognitive constructs, the consolations of consumerism, the idea of objective function of consumerism, the sense that progress is wrapped around materials has fallen apart and offers them no help whatsoever. This is an incredibly resonant point during personal crisis and it is the

biggest single thing that people who are in that situation have to deal with. Their resources to deal with that come from all sorts of places, they come from a variety of perspectives philosophical, religious, the building of trust and relationships in a different way than the way they conceived in the past. But that point of crisis, that point of disintegration is an incredibly poignant one but quite an instructive one.

A very similar point was made to me in the mental health field who talked about what happens when **mental breakdown occurs** now again the point about this is he described it is in a sense a disillusion of an entire lifestyle package of how we have constructed our lives, through work, through leisure, through the relationships we've had, through our relationship with material goods, to the world around us to our social world. All of that falls apart in the context of mental breakdown. And he likened that, and it was not my analogy at all, but he likened that essentially to the kind of reconstruction that he believed we need in order to build, to recreate a world at this point in time. And he also pointed to this **moment of transformation** which **is incredibly difficult to hold on to** when nothing makes sense so that point about breakdown is that it is breakdown and what has to follow is reconstruction. And I think the reason why I'm sort of dwelling on this example is that I don't entirely believe that we are in an impossible situation neither do I entirely believe that we have to stick with our existing institutions and have trust in how they might

I believe there is a point of contradiction, pure contradiction at the heart of transformation and interestingly the economic language around creative destruction recognises this. Absolutely, Shumpeter talks about that process of creative destruction as a point of dissolution of the old structures to make way for the new structures and that point of dissolution is not something that can be avoided, it is part of the creative process and I kind of think in a way that's my final sort of reflection of **where we are in time**. Our ability to hold simultaneously the idea that we will invest no hope whatsoever in the Copenhagen process, it may come out with something, it may be fantastic, we may get a local/global agreement, we may be in a position where because of that global agreement we are committed to 42% reduction in the UK all of those things may happen but the **investment of hope in that process is profoundly**

dangerous. And at the same time what is also dangerous is to suggest that the opposite of not investing hope is to align ourselves with hopelessness.

Somewhere in that contradiction between hopelessness and hope lies the point of transformation. Somewhere in that point where the breakdown has occurred and our understanding of these relationships are no longer coherent **a point of transformation** occurs. Somewhere in the process of destruction, creativity arises. The ability to hold that dialogue, to hold those conflicting opposites in the same place however painful it is, however hopeless it looks seems to me to be one of the foundations of transformation and it is that that we're talking about. The challenge is enormous, the conflicts are **difficult**, the ability to negotiate our lives around them is challenging on a day to day basis but that I think is the task. It's a task, of actually **the ability to hold conflicting issues** is very useful when you are managing inter-disciplinary research team

(laughter) it is a day to day management task there and I would really just at this point like to end by paying enormous homage to the research team that is RESOLVE.

Excerpt from Symposium

I can have anything, do anything, be anything - it's all too big a problem, I can't do anything, Now, those are the kind of polar extremes which I think end up crippling us and any understanding of what agency really means. We swing violently from one to the other in a very confused and ultimately crippling way.

But the language of hedonism does trouble me because I think absolutely unavoidable and I think we have to be so honest here is that one of the biggest problems is entitlement. And I think, a culture whereby entitlement is written into every aspect of it, I can fly to the Caribbean because I've got the cash, you know, I'm entitled to put that much carbon in the air. But hedonism has been so predicated on entitlement, you know, I am worth it, that I think dismantling those kinds of understandings of **hedonism** are crucial. And what Kate's talking about is getting beyond that to a re-imagining of hedonism. But it's a big jump over I think a very big problem.

I was very interesting when DEFRA said **it's not about sacrifice**, to me it immediately chimed with a wonderful essay which I would point you to by Sigmund Falman (?) who is one of my great inspirations in a book that Joseph Rowntree Foundation has brought out, where he just points out that **sacrifice** has no purchase on our culture, none whatsoever and you could probably argue historically that is unprecedented in human culture, there **always has been an understanding of sacrifice, it's role, it's place, how it works, where it works, and I think perhaps we need to put that word back into the language**. Renunciation, because these are part of the less is more. You here people saying less is more in the environmental movement but they are still very shy about renunciation and sacrifice. But it seems to me when Kate talks about a need for a moral renaissance and Peter talked about the need for a Mass Epiphany they are conjuring up absolutely fascinating questions about this sort of moral re-awakening and that will inevitably involve questions about sacrifice and renunciation and the interesting religious understanding of sacrifice which is that **through true sacrifice** you come to **greater understandings about freedom and love** etc etc I mean there's a **religious understanding** of sacrifice which ultimately could be quite helpful

here and which I think Kate in many ways is talking about in some aspects of her paper.

But as an historian I come at everything, you know, think about what the historical precedent. I really think it would be very interesting if we have any historians in the room to hear from them, When have we in Western Society had no, in the last 250 years even, had such a dramatic **moral renaissance**? What's it look like, how did it happen, did it rely on psychological insights, which I find the **environmental movement increasingly heavily weighing on, surely psychology can help us out here?** The only example I can think of, is something around the salvation army in the 1900's, 100 years ago, they talked about precisely a moral renaissance, they say the problems to do with urban Britain to do **with a mass epiphany**. That might be a quite interesting example, are there any aspects about that organisation that give us inklings about how certain types of mass movements.

I was very struck by what Peter was talking about seeing as I'm on this moral territory it seems to me and he presented very quickly because he didn't have much time a fairly depressing analysis of how Christianity and the religious, ethical traditions in the West had played a big part of getting us into this mess. The way they prioritise the quest for eternal life, to summarise it very quickly, and so it means that the challenge here in terms of moral renaissance is enormous we have to start from scratch, it so **requires a different type of morality** than anything we can call from our recent past.

Appendix F Evolution of Coding (Alternative Hedonism Lines 53 – 71)

First Round

Additional Codes – not used in primary experience scale

ExC – extended consciousness FM – Freedom Movement SK – Seeing is knowing

GD – Goal Destination

Line	Primary Experience	Generative Metaphor/Text	Spatial/temporal Relationship
53	SK – detection Implicit to the organism? Embodied? Emotional – disenchantment ExC	Can now detect a more implicit disenchantment with consumerism	
54	Embodied hold Conceptions – birth	Other conceptions of the good life are gaining more of a hold	among some – perceived
55	Sense – embodiement	In the sense	
55	Well-being is wealth	That the affluent lifestyle	
56	Organism under stress,	Compromised by the stress,	
56	Time is a resource, Morality is pure, FM, Morality is healthy,	Time scarcity, air pollution, traffic congestion, obesity and general ill health that go with it	Relationship – go together with it
59	Control over – down	It's negative impact on people themselves	
60	FM. Embodied pleasure barrier	It distrains on both sensual pleasure	
	ExC	And more spiritual forms of well-being – other than wealth - unspecified	
61	Morality is happiness, Morality is wholeness	Laments of what has gone missing from our lives	
63	Morality is free		Under the relentless pressure of neo-liberal economic policies
	More is up, contact – embodied	Interests in less tangible goods – more free time, more personal contacts,	
	Pace – embodied foot?	A slower pace of life – does this mean more healthy?	Time – slower pace
65- 70	Primary and social emotions	Distress, nostalgia, dejection, alarm, depression, sadness,	
71	Wealth is well-being	None other than monetary values	
71	GD -	Can make headway in our culture	

Appendix F Evolution of Coding Example – Alternative Hedonism Cont.

Second Round

Line	Primary Experience	Generative Metaphor/text	Spatial/Temporal Relationship
53	SK – detection Implicit to the organism? Embodied? Emotional – disenchantment ExC	Can now detect a more implicit disenchantment with consumerism	
54	Embodied hold Conceptions – birth	Other conceptions of the good life are gaining more of a hold	among some – perceived
55	Sense – embodiment	In the sense	
55	Well-being is wealth	That the affluent lifestyle	
56	Organism under stress,	Compromised by the stress,	
56	Time is a resource, Morality is pure, FM, Morality is healthy, pain	Time scarcity, air pollution, traffic congestion, obesity and general ill health that go with it	Relationship – go together with it
59	Control over – down	It's negative impact on people themselves	
60	FM. Embodied pleasure barrier	It distrains on both sensual pleasure	
	ExC	And more spiritual forms of well-being – other than wealth - unspecified	
61	Morality is happiness, Morality is wholeness Emotion - Sadness	Laments of what has gone missing from our lives	
63	Morality is free		Under the relentless pressure of neo-liberal economic policies
	More is up, contact – embodied	Interests in less tangible goods – more free time, more personal contacts,	
	Pace – embodied foot?	A slower pace of life – does this mean more healthy?	Time – slower pace
65- 70	Embodied - distress, Primary - alarm, depression, dejection and sadness	Distress, nostalgia, dejection, alarm, depression, sadness,	
71	Wealth is well-being	None other than monetary values	
71	GD -	Can make headway in our culture	

Appendix F Evolution of Coding Example – Alternative Hedonism Cont.

Final Round

Line	Primary Experience	Embodiment	Primary Emotion	Social Emotion
53	Emb - Implicit	1		
	Emotion - disenchantment		1	
54	Emb - hold	1		
55	Emb - sense	1		
56	Emb - stress,	1		
56	Emb - obesity, ill health	1		
59	Emb - impact on people	1		
60	Emb - sensual pleasure	1		
61	Emotion - Sadness		1	
	Emb - contact	1		
65	Emb - distress,	1		
70	Emotion - alarm, depression, dejection, sadness		4	
71	Emotion - fear		1	