

**Psychosocial factors affecting enactment of pro-  
environmental values by individuals in their work to  
influence organisational practices**

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## DECLARATION

I declare that this thesis is my own work and has not been previously submitted in substantially the same form for a higher degree elsewhere.

A handwritten signature in black ink, appearing to read 'Nadine Andrews', written in a cursive style.

Nadine Andrews

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Picture credit: Margaret Kerr 2015

## ABSTRACT

While studies indicate there is a strong link between pro-environmental values and behaviour, they also show that such values are not necessarily enacted consistently across all areas of our lives. There are many psychosocial factors that can affect congruent enactment. Improving our understanding of what these factors are and how they influence cognition and behaviour is critical for subverting our inadequate response to ecological crisis, yet it is an area that remains under explored. In this thesis I investigate factors affecting enactment of pro-environmental values by individuals in organisational contexts. Integrating Interpretative Phenomenological Analysis with frame and metaphor analysis in an innovative transdisciplinary and cross-level methodology, my study enquires into the lived, embodied and situated experience of six sustainability managers and leaders in the UK and Canada in their work to influence pro-environmental practices in their organisations. Using semi-structured interviews as the primary data source, over 70 highly nuanced and in-depth findings are generated, enriching our understanding of psychological threat coping strategies from a systemic perspective:

- Sources of threats and tensions that arise for sustainability managers in their work to influence organisational practices (e.g. thwarted autonomy, competency or relatedness needs, incongruence in values)
- Types of coping strategies used to negotiate these tensions (including identity work, emotion regulation, seeking support from external partners, constructing a motivational story, nature connection)
- Ecologically adaptive and maladaptive outcomes of these responses for the individual and the organisation (including indirect impacts on vitality and effectiveness)
- Factors affecting the efficacy of adaptive coping strategies (e.g. type of motivation, type of self-awareness, cognitive frames about nature)
- Contextual factors (organisational, cultural worldview)
- How these factors interact with each other, creating feedback loops

The conceptual models I have constructed make these largely unconscious psychosocial processes visible; and may be of practical use to individuals in facilitating deeper awareness of the dynamics in their situation and helping to identify where interventions can be made to improve their efficacy and resilience in influencing pro-environmental change in their organisations.

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## GLOSSARY

Adaptive coping strategy or adaptive response	A strategy that promotes psychological adjustment to the reality of the situation and stimulates appropriate and proportional actions
Affect	The experience of feeling or emotion
Arousal	Experiences of the bodily responses created by the sympathetic division of the autonomic nervous system
Attitudes	Tendencies to evaluate something positively or negatively
Autonomous regulation of behaviour	Behaviour is motivated by intrinsic interest and/or sense of importance
Autonomy	The desire to self-organise experience and behaviour and for activity to be concordant with one's integrated sense of self and intrinsic choices. Sense of enacting values through behaviour, the experience of integration and freedom, and includes the human tendency to work towards personal growth and integration of new experiences into a coherent sense of self (Deci & Ryan 2000).
Burnout	Mental overload and strain
Catastrophism	Thinking the worst will happen
Cognitive frames	Bundle of strongly linked concepts and associated emotions and values, learnt through experience and stored in memory
Compartmentalisation	Conflicting ideas are separated from each other in the mind
Competency	Feeling competent, attaining valued outcomes (Deci & Ryan 2000)
Cognition	Process of acquiring understanding through thought, emotion, bodily senses and experience
'Deep green'	View that humans are part of nature, and nature has intrinsic value independent of its instrumental value to humans meaning that where there is conflict, human needs and wants should not necessarily win out
Denial	When facts are not allowed to be accepted in the conscious mind
Directed attention	Form of attention that is effortful because it involves inhibition of other stimuli that are more attractive and potent. Directed attention is a limited resource and overworking capacity results in mental fatigue
Disavowal	Facts are both denied and acknowledged by different parts of the mind
Discourse	Standardised way that a particular group in society uses language, images and other forms of representation
Disembodiment	The distancing of our selves from our embodied being in the world
Drives	Internal states activated when physiological characteristics of body are out of balance
Dualism	Hierarchical oppositional relationship between two domains that makes equality and mutuality unthinkable (see hyperseparation)
Ecological crisis	When the environment of a species or population changes in a way that destabilises its continued survival

Ecological identity	Sense of belonging/connection to external non-human nature, and inner connection with 'wild' parts of the self: emotions, physical body, intuition, instinct, and the unconscious mind. This is an expanded definition of environmental identity
Egocentric	Concern about the self that comes from the narrow sphere of the ego-self
Ego-involvement	When a person's self-esteem is contingent on achieving extrinsic goals and positive evaluation by others
Ego-self	A mode of self-concept where the self is in the role of object, detached from its surroundings. The ego-self is concerned with the creation, enhancement and protection of personal identity. A sense of self largely internalised from the reactions and opinions of others – linked with ego-involvement
Embodied cognition	The fundamental role of the physical body in perception and understanding experience, not just as a biological object but a lived experiential structure interacting with the world
Embodied realism	Epistemological position of cognitive linguistics that understands meaning to be generated in and through ongoing embodied interactions with our changing environments
Emotion	Mental and physiological feeling state that directs our attention and guides behaviour. Emotion is inner-directed
Emotion regulation	The ability to control and productively use one's emotions, as well as the processes by which individual's influence which emotions they have, when they have them, and how they experience and express them
Environmental behaviour	Actions that have consequences for the natural world
Environmental identity	Sense of self as part of and connected with the external nonhuman natural world
Experience	Internal interactions among the mind, body and behaviour. Awareness of such interactions turn 'experience' into 'an experience'
Extended cognition	Features of a person's physical, social and cultural environment partially constitute that person's cognitive system
Goals	Desired end states that we strive to attain
Hyperseparation	Extreme division, where differences between two domains are maximised and magnified in a dualistic relationship (see dualism)
Identification	Changing the self by becoming more like an admired person or group
Intellectualisation	Thinking is used to avoid feeling emotion
Intrapersonal	Taking place or existing within the mind
Intrapsychic	Internal psychological processes of the individual
Intersubjective	Shared meanings constructed through interactions with others; interplay between conscious minds, between the personal and the shared
Intuition	Gut feeling based on experience, perception via the unconscious
Introjected regulation of behaviour / introjection	Motivation for behaviour is partially internalised and partially controlled so there is some lack of desire to carry out the behaviour, resulting in inner conflict and pressure.
Involuntary attention	Form of attention that can be sustained with minimal effort because content is interesting and exciting

Meaningfulness	Extent to which experience is perceived as valuable, worthwhile and having purpose
Mindfulness	Impartial witnessing of contents of consciousness
Motivation	Driving force that initiates and directs behaviour, motivation is goal directed (meets needs)
Narcissism	Multidimensional construct that includes exploitativeness and entitlement, authority and leadership, superiority and arrogance, self-admiration and self-absorption
Perception	Organisation, interpretation and understanding of incoming sensory information
Priming	Influencing responses in people by exposing them to a particular stimulus (e.g. certain language) which then activates associations in memory
Pro-environmental behaviour	Actions with beneficial environmental effects
Pro-environmental decision-making	Decisions that have beneficial environmental effects
Pro-environmental values	Care for the natural world is considered an important guiding principle in life (Self-transcendence values)
Progressivism	The belief that advancement of technoscience, industrialisation and economic development are vital to improve the human condition
Projection	Passing of responsibility and blame elsewhere, or removal of disturbing thoughts or feelings from oneself and placing or attributing them to someone or something else
Psychosocial factors or processes	Psychological processes in interacting with contextual factors to shape behaviour
Regression/infantilisation	Reverting to child-like state and claim e.g. that one has no responsibility or influence
Relatedness	Seeking attachments and experiencing feelings of security, belongingness and intimacy with others (Deci & Ryan 2000)
Resilience	Inner strengths and coping resources for necessary adaptation to situational demands
Salient values/identity/frames	Values/identity/frames that have priority in the mind at a particular moment in time
Splitting	All-or-nothing thinking e.g. a person's actions and motivations are either all bad or all good.
Systems thinking	An approach to understanding complex phenomena that involves studying the relationships between parts of the system and the system as a whole from multiple partial perspectives.
Technoscience	Union of science and technology
Transdisciplinary	A research strategy that crosses many disciplinary boundaries to create a holistic approach
Values	Guiding principles in the life, beliefs that are inextricably linked to emotion
Vitality	Physical and mental energy available to the self for action

# 1 INTRODUCTION

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This thesis provides an account of a transdisciplinary enquiry into the lived experience of six environmental sustainability managers and leaders with regards to their work of seeking to influence and improve pro-environmental practices in their organisations. The organisations are in the UK and Canada in the public and third sectors in local government, social housing, credit union and health care, and the research participants' work ranged from producing environment strategies and policies, delivering energy efficiency programmes to conserving habitats. I then demonstrate how this enquiry enabled the identification of particular psychosocial factors that were influencing the research participants' cognition and behaviour and affecting how their pro-environmental values were enacted in their work. Gaining insight into these factors is the primary purpose of the research.

In this thesis, psychosocial factors refer to psychological processes interacting with social contextual forces to shape behaviour. As part of the analysis and interpretation process I constructed models to visually represent how these factors interact as processes creating tensions and feedback loops. These models have potential to be of practical use to sustainability professionals in improving their efficacy in influencing pro-environmental change in their organisations.

The study discussed in this thesis draws upon and contributes to the broad area of research exploring psychological dimensions of human responses to ecological crisis (including but not limited to climate change). Contributing to this area of research is important because our mitigation response to date has been grossly inadequate, with severe negative consequences for humans and other living beings, as I explain in the following section (see

1.1.1). Improving our understanding of factors influencing maladaptive responses could help in stimulating and supporting ecologically adaptive responses that are so critically needed. Psychological dimensions of human responses to ecological crisis is a broad field. More specifically, my findings enrich our understanding of the role and relationship of multiple psychosocial factors in the enactment of pro-environmental values by individuals in their work to influence and improve environmental practices in the organisation. These are aspects of experience largely hidden from conscious awareness and generally overlooked in the literature on environmental behaviour (Bartlett 2011; Lertzman 2015; Norgaard 2006). I bring new systemic insight to our understanding of psychological threat coping strategies: the different tensions that arise for sustainability managers in their work to influence organisational practices, the types of coping strategies they use to negotiate these tensions, the ecologically adaptive and maladaptive outcomes of these responses for the individual and the organisation, factors affecting the efficacy of adaptive coping strategies, and the contextual factors (organizational, cultural worldview) that influence their experience. I also contribute new knowledge about how these processes interact.

I am interested in factors affecting enactment because although pro-environmental values are reliable predictors of pro-environmental behaviour they are not the sole determinant and people may act in ways that diverge from their dominant values (Uzzell & Rätzl 2009; Holmes et al 2011). There is very little other research in this particular area: most of the literature related to environmental behaviour focuses on values rather than on factors influencing enactment of values, and on behaviour and interventions to change behaviour rather than on the drivers of behaviour (Bartlett 2011; Wright, Nyberg & Grant 2012; Lertzman 2015; Spence, Pidgeon & Uzzell 2009). There is also relatively little psychology research on the environmental behaviour of individuals in their organisational contexts: it tends to focus on individuals in other contexts such as in the home or as consumers (Stern

2000; 2011). Yet in Western industrialised societies, people spend most of their lifetime at work (Uzzell & Rätzl 2009) and as Stern (2000 p410) points out, “individuals may significantly affect the environment through... influencing the actions of organizations to which they belong”. Businesses have a significantly higher environmental impact than households (DECC 2013; Stern 2000), and this makes them an important context for studying environmental responses. But studies of the relationship between organisations and the natural environment / organisational environmental sustainability tend to overlook the role of the individual, preferring to adopt organisational, institutional or global levels of analysis instead (Sharma & Starik 2002; Lülfs & Hahn 2014; Lo 2015).

The research described in this thesis is unusual and innovative, crossing disciplinary boundaries and challenging conventions. I have drawn on insights and ideas from various fields in psychology and from cognitive and ecolinguistics, organisational studies and environmental philosophy to shape my research questions and inform my analysis and interpretation. The research has been approached from a psychosocial research perspective that regards the psychological and the social as always implicated in each other. It integrates the methodological framework of Interpretative Phenomenological Analysis (IPA) with frame and metaphor analysis (a form of micro-discourse analysis) from cognitive linguistics. IPA and cognitive linguistics are both concerned with situated and embodied experience. I find these approaches philosophically compatible, and that together they create a coherent methodology. Micro-discourse analysis generates highly nuanced, rich and detailed insights into how people conceptualise their experience yet this method is rarely adopted in environmental behaviour research. My research makes empirical and methodological contributions to psychology research on environmental behaviour, and within organisational studies to sustainability behaviour in organisations, identity work and emotion regulation. My research also makes a methodological contribution to ecolinguistics.

The sections that follow in this Introduction chapter offer an overview of the research. I set out the background and motivation for the study. I then contextualise the study within the broader research field, articulate the aims and questions, and provide an outline of the research design. The section ends with an outline of the structure and content of the thesis to aid the reader in navigation.

A glossary of key terms used in this thesis is provided after the Contents. Because definitions can vary in different disciplines (e.g. cognition), creating clarity about definitions helps ensure the thesis is understood as intended.

## **1.1 BACKGROUND TO THE STUDY**

I begin by outlining the broad context and impetus for my study: the global predicament of ecological crisis and the inadequacy of the human response to it, which is endangering life. I follow this with an explanation of my personal and professional motivation for conducting this research.

### **1.1.1 Ecological crisis and the maladaptive human response**

When the environment of a species or population changes in a way that destabilises its continued survival, this situation is called 'ecological crisis'. Following many other scholars (e.g. White 1967; Bateson 1987; Searles 1972; Merchant 1983; Plumwood 2002; Kidner 1994; Crompton & Kasser 2009; Howarth 1995; Uzzell 2000) this is the term I use in this thesis to describe the situation we face.

Our position as a species along with all other species is more precarious now than at any time in our history. This is due to escalating human-caused damage and destruction of

natural habitats and disruption of planetary cycles and processes that balance and regulate the Earth's life support systems. The scale of these disruptions leads many scientists to refer to this time as the Anthropocene (e.g. Steffen et al 2011), a new and unprecedented geologic epoch in the Earth's history. Climate change is but one symptom of a disharmonious relationship between humans and the rest of the natural world, as the Stockholm Resilience Centre's planetary boundaries model makes clear (Steffen et al 2015; Rockström et al 2009). We are thought to be in the beginnings of the sixth mass extinction of species, also human-caused (Ceballos et al 2015) with perhaps as many as 100,000 species becoming extinct each year (WWF 2015). Since 1970, it is estimated that the number of humans on the planet has doubled<sup>1</sup> and the number of wild animals has halved<sup>2</sup>.

So what are we doing to change this situation we have created? It has been well known for decades that these anthropogenic disruptions are dangerous to life – all life. Rachel Carson's book *Silent Spring*, published in 1962, about the effect of pesticides shocked many into activism, and the Club of Rome's 1972 *Limits to Growth* reported results of computer modelling to predict overshoot and collapse of civilisation by 2070 if we carried on with 'business-as-usual'. Yet despite these and other early warnings, substantive behaviour change has not been forthcoming: business has continued more or less as usual, and the crisis has deepened. Dismissed as improbable or alarmist by many at the time, recent studies appear to show the world is tracking quite closely to that *Limits to Growth* forecast (Turner & Alexander 2014). Naomi Klein (2014 p11) states:

“The intergovernmental body entrusted to prevent “dangerous” levels of climate change has not only failed to make progress over its 20-odd years of work... it has overseen a process of virtually uninterrupted backsliding.”

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<sup>1</sup> From 3.7 billion in 1970 to 7.3 billion in 2014 (geohive.com)

<sup>2</sup> Mammals, birds, reptiles, amphibians and fish numbers have declined on average 52% between 1970 and 2010 according to WWF and ZSI Living Planet Index

Environmental philosopher John Foster (2015 p7) observes that “if each successive missed deadline, breached threshold or authoritative warning is a wake-up call to the world, the global alarm clock must be set very firmly to ‘Snooze’”. An urgent question we must answer is: *why are we not waking up?* The inertia and disproportionality in our collective response to the facts of ecological crisis<sup>3</sup> leads some commentators to warn that devastating consequences are increasingly likely (e.g. Klein 2014; Foster 2015). Altering greenhouse gas emission trajectories as drastically as is needed to keep within 1.5 degrees warming requires “profound lifestyle changes” according to a leaked European Commission report (Neslen 2016). Some climate scientists are sceptical that such changes will occur in time (e.g. see Friedman & ClimateWire 2015<sup>4</sup>; Hansen 2015; Anderson 2015).

Often the response by environmentalists is to attempt to wake people up by presenting them with information to raise their awareness. But as the latest report by the Intergovernmental Panel on Climate Change states, “Numerous recent studies caution that addressing knowledge deficits may not necessarily lead to adaptive responses” (Klein et al p911). The catastrophic consequences of climate change are without precedent for humanity, and this leads psychoanalytic psychotherapist Paul Hoggett (2011) to ask, how can we think in a realistic way about something whose implications are unthinkable?

Environmental activist and Buddhist scholar Joanna Macy (1993 p15) proposes that, “as a society we are caught between a sense of impending apocalypse and an inability to acknowledge it”. Hoggett and Macy’s views indicate the richness of human responses to ecological crisis as an area of study. Improving understanding of factors influencing

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<sup>3</sup> For example the carbon reduction pledges made by countries in advance of the COP21 global climate negotiations in December 2015 are considered by the United Nations Environmental Programme to be well below the level needed to restrain global warming to within 2 degrees of pre-industrial levels (UNEP 2015)

(mal)adaptive responses appears to be a critical task if we wish to avoid worst-case scenarios and to mitigate and adapt to ecological changes as best we can.

### **1.1.2 Motivation for the research**

I find the huge challenge facing humanity and our inadequate response both deeply troubling and intriguing. I am particularly interested in understanding the factors that influence incongruence in those of us who are already environmentally-minded; my research interest lies not so much with those for whom such values are a low priority. After completing a MA in Arts & Heritage Management I worked for many years as a consultant, facilitator and coach in the creative and cultural sectors. I have professional interest in and knowledge of the role of individuals in affecting organisational change. In the few years prior to commencing the PhD, my work focussed on wellbeing at work and environmental impact.

Whilst doing the PhD full-time, my professional work has mostly taken the form of teaching mindfulness and nature connection practices, and facilitating professional development workshops using mindfulness and nature-based approaches, with the aim of supporting individuals and organisations to live more harmoniously with the natural world. As part of the UK ecopsychology network, I share its broadly held belief that restoring healthy ecological balance of the planet involves also reconnecting with all aspects of our inner selves. As ecopsychologist P. H. Kahn said, we need to 'rewild' our psyches (Smith 2010).

Reconnecting and rewilding is a dynamic ongoing process, which in the nature-disconnected cultural context of modern industrial societies requires a regular structured practice. For me this takes the form of daily mindfulness meditation and nature connection exercises.

Walking the talk - embodying and modelling the subject-matter of my professional work in the way I do this work - is important to me, and I have discovered that this in itself is a powerful form of communication. In the process of doing the research and writing this

thesis, I have sought to do the same. For this reason I have written in the first person, as that feels more appropriate for a study into lived experience. And because the study is about *embodied* lived experience, I have made use of my embodied experience of interacting with the research participants to inform data analysis and interpretation in a reflexive process. Embodied experience involves the role of the physical body and body sensations in shaping perception, cognition and behaviour. It is recognised as a source of information in the literature that informs my study (e.g. Deci et al 2015; Lakoff & Johnson 1980; Varela, Thompson & Rosch 1991). In addition to rational analysis I also draw on intuitive analysis (Firestone & Dawson 1982). As I explain in the chapter on research process (see 3.2.4), intuitive analysis is a valid approach in Interpretative Phenomenological Analysis (IPA; Smith, Flowers & Larkin 2009). Firestone & Dawson (1982) maintain that individual intuition is the richest source of subjective understanding in qualitative research. I have also drawn on my experiential and professional knowledge of practising and teaching mindfulness and nature connection in applying related theories. In IPA it is recognised that analysis inevitably draws on experiential and professional knowledge (Smith, Flowers & Larkin 2009), and I believe it is precisely because of this knowledge and understanding that I have been able to work with the material with integrity in a nuanced and deep way (Firestone & Dawson 1982). Sensitivity and responsiveness to the subject-matter is considered critical in IPA research for yielding rich outcomes (Larkin, Watts & Clifton 2006).

Stibbe (2013) says that in analysing a text from an ecolinguistic perspective, the analyst judges the discourse against a normative framework that is informed implicitly or explicitly by their ecological philosophy. I wish to make my ecological philosophy explicit. I regard a fundamental cause of ecological crisis to be distorted perceptions of the human relationship with nature: in short, that humans are separate from nature, that humans are superior to nature, and that the external natural world exists for its instrumental value as a resource for

us to exploit for our own ends. But other living beings are our kin with whom we have co-evolved over millennia, and they have intents and purposes of their own. It is my belief that we should take the health and resilience of the wider living community into account when we make decisions, and this means that human interests will not always win out. For me, how we respond to ecological crisis is a matter of not just human social justice but *biotic* justice. Essentially, it is an issue of how we choose to be in relationship with the living world. Finally, my motivation for conducting transdisciplinary research. I have always had a wide range of academic interests and have never positioned myself or had a sense of belonging within any one field or discipline. As a trained practitioner of systems thinking, in this study I have adopted a holistic approach to the topic and taken many aspects into account. Such an approach lends itself well to transdisciplinary research but it does present a challenge with regards to working with complexity. There is always a temptation to simplify through reductionism because that makes life easier, but for me the richness of insight that can be gained from a systemic and transdisciplinary approach makes the discomfort of working through messy problems worthwhile. Stern (2000) regards the area of environmentally significant behaviour as 'dauntingly complex'. There were many times during the research process when the complexity felt daunting and occasionally overwhelming because the space of possibilities was so vast and the interconnections so numerous. The terrain covered in this thesis is complex but I hope to have woven the various threads into a sufficiently coherent and undaunting narrative for the reader.

## **1.2 RESEARCH SUMMARY**

### **1.2.1 Positioning the study in broader field of research**

At the start of this chapter I stated that my study sits within the broad field of research on psychological dimensions of human responses to ecological crisis. Psychological dimensions

are integral to human dimensions (Swim et al 2011) and the American Psychology Association has argued that psychology has an important contribution to make in developing understanding of the human dimensions of climate change (American Psychological Association 2009). Although focussed on climate change, which is just one symptom of ecological crisis, this stance by the American Psychological Association is significant because as Kidner (1994) explains, psychology has been slow to engage with the issue of environmental destruction, and as Clayton & Opatow (2003) also note, psychology has given scant research attention to our relationship with the natural world. But as psychologists themselves acknowledge, within climate science research the value of psychological contributions are not yet widely accepted nor are psychological insights and findings widely applied in the broader climate science research community (Swim et al 2011 p246). So it would appear that there are weaknesses in both the amount and the impact of psychological dimensions research.

The literature that speaks to this construct of 'psychological dimensions of human responses to ecological crisis' has yielded many useful insights but there is still so much that remains obscure and not well understood, and many aspects are under-explored, as I indicated earlier. Scholars (e.g. Bartlett 2011; Wright, Nyberg & Grant 2012; Lertzman 2015; Spence, Pidgeon & Uzzell 2009) have pointed out that the focus has tended to be on what people think about the natural world and their relationship with it, how they behave that impacts on it (responses and causes), and on interventions to change behaviour (mitigation responses). The underlying causes and drivers of behavioural responses - the mostly unconscious processes of motivations, desires and impulses are less well researched, as are contextual forces (Norgaard 2006; Uzzell & Rätzzel 2009), but these aspects should not be overlooked because they enable a fuller understanding of why we are responding to ecological crisis in the way we are. Environmentally significant behaviour, says Stern (2000

p422), is “dauntingly complex, both in its variety and in the causal influences on it”. Stern explains that not only do different causal variables - which lie in the domains of various disciplines - appear to work in different ways in influencing behaviour, the variables themselves interact with each other. Thus, Stern concludes that interdisciplinary research is necessary for a more comprehensive understanding; reductionist research that focuses on single variables may not be able to contribute much to this. But psychology research into environmental behaviour does tend to be reductionist and it is dominated by experimental and survey methodologies that do not lend themselves to studying the complexity of environmental behaviour and the unconscious processes and contextual forces involved (Uzzell & Rätzl 2009; Lo 2015). This methodological emphasis in psychology research, suggest Willig and Stainton-Rogers (2010), has been partly driven by socio-economic demands for quantitative data to inform social policy. My research engages directly with the complexity that Stern identifies by adopting a transdisciplinary, multifactor and cross-level approach to explore lived experience. Included in this approach is the study of language, which in this thesis is regarded as a psychosocial factor, following a cognitive linguistics perspective that holds that language influences how we perceive and think, what we do, and how we relate to the world, in often unconscious processes (Lakoff & Johnson 1980). It also draws on ecolinguistics, which critiques discourses for the way in which they encourage environmentally beneficial or destructive behaviour (Stibbe 2015). Some of this linguistics work is being used to inform environmental campaignings<sup>5</sup>. However, cognitive and ecolinguistic approaches that analyse how the natural world, environmental change and ecological crisis are being talked about and what the implications are for effective mitigation and adaptation are less common than sociological approaches, although interest in communication of environmental issues and science seems to be growing. Because of the

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<sup>5</sup> For example see [valuesandframes.org](http://valuesandframes.org)

importance of language in shaping behaviour, I have drawn upon literature from cognitive and ecolinguistics in my study.

### **1.2.2 Research aims and questions**

Informed by the literature, I identified the following aims for my study:

- Aim 1 To gain new insight into psychosocial factors affecting congruent enactment of pro-environmental values by individuals in their work to influence organisational practices
- Aim 2 To generate knowledge and understanding that may be of practical use to sustainability professionals and environmentalists

To meet these aims, the following research questions were developed, also informed by the literature:

- RQ1 What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?
- RQ2 What psychosocial factors can be identified that influence the participants' enactment of pro-environmental values in their work? How do these factors interact as processes?
- RQ3 What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?

The premise is that by enquiring into the lived experience of research participants, data is generated that can be analysed for psychosocial factors influencing cognition and behaviour.

### 1.2.3 Research design

I have used Interpretative Phenomenological Analysis (IPA) as a theoretical framework for structuring my approach because of my interest in psychosocial processes. IPA is a relatively new qualitative research methodology in psychology that enquires into how a person experiences and makes sense of a given phenomenon (Eatough & Smith 2010; Smith, Flowers & Larkin 2009). This enquiry into lived experience is situated, which means that the particular environment and set of socio-cultural circumstances within which a person is embedded is integral to the analysis, in recognition of the way that their embodied interactions with this context shapes their cognition and behaviour with respect to the phenomenon under study. With regards to my study, the situated context for the participants is their experience of working in their organisation to influence pro-environmental policy, strategy and practice. Cognitive linguistics shares a similar interest in the interaction of a person with their context, understanding language to be both situated and embodied. Meaning, it holds, is generated in and through ongoing embodied interactions with changing environments (Johnson & Lakoff 2002). This philosophical compatibility makes integration of IPA and cognitive linguistics into a coherent methodological framework possible.

Both IPA and the frame and metaphor analysis method in cognitive linguistics make use of intersubjective knowledge to analyse and interpret the text. Intersubjective knowledge is co-created in the interaction between researcher and participant, and between researcher and published literature - which has itself been intersubjectively created. This approach acknowledges the fundamental interconnectedness that a person has with the world. IPA also allows for use of intuitive analysis by the researcher (Smith, Flowers & Larkin 2009), which makes sense for an approach that is about embodiment, because intuition involves embodied perception and knowledge (Marks-Tarlow 2014). One's own physical body

sensations, feelings and emotions are sources of information (Deci et al 2015; Ryan et al 2006 cited in Deci et al 2015), as is the body language of others.

The main data source for the study is 2-hour semi-structured interviews with six research participants, although I also used participant diaries, indirect observation and organisational documents as well as my own reflexive diary. The interviews were audio recorded and transcribed verbatim. I used micro-discourse analysis to interpret the data and generate themes informed by the literature, on a case-by-case and cross-case basis. The data were coded for cognitive frames and conceptual metaphors, values and identity salience, psychological threat defences/coping strategies, psychological needs and types of motivation, emotions and embodied awareness, and conflicts and ambivalence in the participants' accounts.

I used diagramming to aid my understanding of the interplay between aspects of experience as an integral part of the analysis and interpretation process.

The research participants are environmental sustainability managers and leaders in the public and third sectors in the UK and Canada. They were recruited through my professional and social networks. A final debrief conversation was held with the participants to share the theoretical framework for the study, which had not been disclosed to avoid unnecessary bias, and to share key findings as a stakeholder check for credibility and trustworthiness (Thomas 2006; Lincoln & Guba 1985).

#### **1.2.4 Theoretical and practical contributions**

The study generated over 70 findings not just about psychosocial factors involved in participants' experience but also how these factors interact as processes to influence their

cognition and behaviour with respect to the natural world, and affect their enactment of pro-environmental values in their role at work. It offers both empirical and methodological contributions to knowledge, which are discussed in detail in section 7.3.

My findings enrich our understanding of psychological threat coping strategies as factors affecting the enactment of pro-environmental values by individuals in organisational contexts. More specifically, my findings contribute knowledge about:

- The sources of threat and the different tensions that arise for sustainability managers in their work to influence organisational practices. For example: incongruence between the individual's values and goals and the organisation's, and conflicts between competency, autonomy and relatedness needs satisfaction
- Types of coping strategies used to negotiate these tensions, which includes identity work and emotion regulation, seeking support from external partners, connecting with nature, and constructing a motivational story
- The ecologically adaptive and maladaptive outcomes of coping strategies for the individual and the organisation. Adaptive coping strategies are those that (i) that stimulate responses appropriate and proportional to the reality of ecological crisis by strengthening pro-environmental values and identities (direct outcomes); and (ii) ease stress for the individual, help satisfy their core psychological needs and maintain/enhance vitality, which supports their psychological wellbeing and effectiveness in doing their work (indirect outcomes)
- Factors affecting the efficacy of adaptive coping strategies, including cognitive frames about nature, type of motivation (controlled or autonomous), and type of self-awareness (mindful or self-focussed)
- Contextual factors (organizational, cultural worldview) that influence one or other of these aspects
- How these processes interact with each other in nonlinear ways to influence cognition and behaviour

These contributions are only possible because of the transdisciplinary methodology I designed, which enabled nuanced and systemic insights to be generated. The key elements that contributed towards original empirical contributions are:

- Use of frame and metaphor analysis
- Phenomenological enquiry into lived experience
- Exploration of self-nature relationship, which includes mind-body connection

The literature explains that the psychosocial factors I have identified interact in largely unconscious processes (Kahneman 2013; Breakwell 1986; Vignoles et al 2011; Lertzman 2015; Maio et al 2011; Thibodeau & Boroditsky 2011; Lakoff & Johnson 1980; Cramer 1998; Rogelberg 2006; Willig & Stainton-Rogers 2010). Making these processes visible by bringing them to awareness enables people to make conscious choices. As part of the research I constructed models of the dynamics of psychosocial processes involved in participant experience. These models have potential to be of practical use to sustainability professionals, environmentalists and organisation leaders in helping to understand feedback loops and identify interventions to develop their resilience, support authentic and effective action, and disrupt their maladaptive responses to ecological crisis. The research described in this thesis can have real-world impact.

### **1.3 THESIS STRUCTURE AND CONTENT**

The thesis comprises of three main parts, bordered by Introduction and Conclusions sections. The bibliography and appendices are attached at the end of the thesis.

#### **1 Introduction**

This opening chapter provides an overview of the research, setting out the research background, providing an explanation of why the research is important and what my motivation is for conducting the research. It contextualises my research within the broader research territory, and introduces the aims, questions, and research design.

#### **2 Literature Review**

This chapter consists of eight sections. I present a review of empirical and conceptual research relating to human responses to ecological crisis that informed the formulation of my research questions. This section also includes literature that provided the theoretical framework for analysis and interpretation of the study data. Some of the literature falls into both camps. The purpose of the review is threefold: (i) to show where there are gaps in research that my study addresses, (ii) to provide background information on theories used in analysis and interpretation and make links between them, (iii) to position my study within a broader field of thinking and research.

#### **3 + 4 Research Process**

This part consists of two chapters. The first chapter (3) presents a discussion of research methodology and philosophical considerations, and draws conclusions about what would constitute an appropriate and coherent methodology for my study. The second chapter (4) provides an account of my process of implementing the methodology, explaining the rationale for the methods used, and outlining key learning and adaptations made. The end

section contextualises the methodology in terms of: assumptions, scope, strengths and limitations of the methodology, and ethical considerations.

## **5 + 6 Research findings and Discussion**

This part consists of two chapters. The first chapter (5) address RQ 1 and provides a detailed analysis of the data generated in the study, structured by the key themes in participant experience. It discusses the findings in relation to the literature. The second chapter (6) addresses RQ2 and extracts key insights from this analysis about key psychosocial factors. It presents two models constructed from the analysis to show interactions between factors.

## **7 Conclusions**

In this final chapter of the thesis I provide conclusions about the research, discuss the knowledge contributions of the findings, and highlight areas for future research.

## 2 LITERATURE REVIEW

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### 2.1 INTRODUCTION

In this chapter of the thesis I highlight key insights from empirical and theoretical research related to human responses to ecological crisis, specifically psychological dimensions.

The purpose of this chapter is threefold:

1. To show where there are gaps in research that my study addresses
2. To provide background information on theories used in analysis and interpretation
3. To clearly position my study within a broader field of thinking and research

As noted in the Introduction, Stern (2000) warns that environmentally significant behaviour is 'dauntingly complex' and that it requires an interdisciplinary approach. In this research I engage directly with this complexity and respond to the call for an integrated approach across disciplines. The literature reviewed here is drawn from various domains and perspectives within and across psychology, philosophy, linguistics and organisational studies. This body of knowledge uses different terminology such as environmental sustainability, corporate social responsibility, organisations and natural environment, pro-environmental or ecologically responsible behaviour; and some research focuses just on climate change, but as I see it they are all essentially speaking to the broader theme of responses to ecological crisis.

Transdisciplinary research has a systemic rather than reductionist approach. Looking at a system of interest from multiple perspectives enables different parts of the system to be

brought together when they are usually viewed separately, and for connections and patterns to be recognised across subject boundaries that may not normally be identified. But these multiple perspectives are necessarily *partial*. A transdisciplinary approach prohibits in-depth study of relevant literature in each discipline: it is simply not possible in the time available, although it is difficult to know when to stop because more material is always coming tantalisingly into view. As John Muir said, "When we try to pick out anything by itself, we find it is hitched to everything else in the Universe." Inevitably, there is a lot of literature that I have had to leave out for capacity reasons. The literature reviewed here is included because it has contributed most to informing both the choice of research questions and the analysis and interpretation of data.

The remainder of this chapter is presented in seven sections. I first explain the broader territory of research that influenced my research design. In the following five chapters I discuss key insights in five thematic areas of: values, goals, needs and motivation; identity and the self; psychological threat; cognitive frames; and cultural worldviews, and explain what these insights mean for my study and how they inform my analysis. I have identified these five thematic areas as constituting the main areas of focus in the literature reviewed, and they provide the reader with necessary background information for understanding my findings. The chapter ends with a summary section that draws together conclusions from the literature review and presents my research aims and questions, demonstrating how they address gaps in research.

## 2.2 POSITIONING THE STUDY IN THE LITERATURE

In this section I set out the academic context for my study, and position it within a broader territory of research. I end by identifying five key themes in the literature I reviewed that are most pertinent to my study: Values, goals, needs and motivation; Identity and the self; Psychological threat responses; Cognitive frames; and Cultural worldviews.

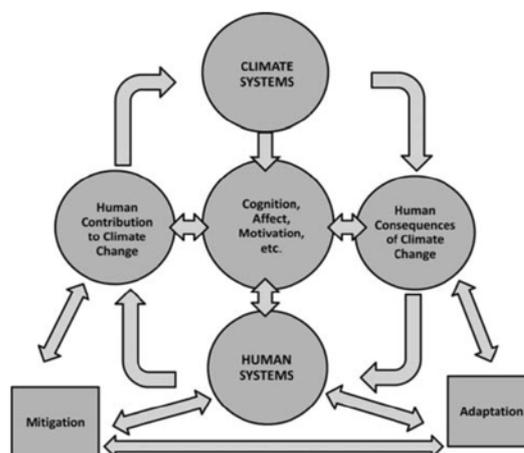
### 2.2.1 Human dimensions of ecological crisis

Adapting a model (Fig 2.1 below) relating to climate change by Swim et al (2011), human dimensions of ecological crisis can be understood as including:

- Human activities that cause environmental change
- Direct and indirect consequences (or impacts) of environmental change for humans
- Human responses to experienced and anticipated environmental change through mitigation and adaptation.

Swim et al (2011) argue that psychological dimensions of climate change are integral to human dimensions, and they represent this relationship in a model, shown below. This illustrates the 'dauntingly complex' nature of environmental behaviour to which Stern (2000) refers.

Figure 2.1 Human and psychological dimensions of climate change (Swim et al 2011 p242)



In Figure 2.1, 'human systems' refers to the full range of cultural, economic, political and social conditions and processes. 'Human contributions' are the activities that directly alter environmental conditions, also referred to in the literature as 'proximate causes'. 'Human consequences' include social impacts (e.g. on intergroup relations), psychological impacts (e.g. feeling of distress), as well as impact on humans via changes to the physical environment. The centre circle represents psychological dimensions such as cognition (thought), affect (emotional responses), and psychological motivations. These psychological dimensions are shown as influencing and being influenced by human systems – in other words, psychological dimensions are psychosocial processes. Human behavioural responses are categorised as 'mitigation' and 'adaptation'. Mitigation refers to activity aimed at altering the proximate causes i.e. changing human behaviour so it has less harmful or more beneficial impact. Adaptation is activity that addresses unfolding and/or anticipated social and psychological impacts. Mitigation and adaptation responses are shown in the diagram to be influenced by psychological processes through the effect of these processes on causes, impacts and human systems, thus behavioural responses are also psychosocial processes. Causes, impacts and responses are not separate: impacts on humans such as felt emotional responses influence the behavioural response, and the behavioural response may be an activity causing further ecological damage and disruption.

### **Focus of human dimensions research**

It is recognised (e.g. see Stern 2000; 2011; Bartlett 2011; Wright, Nyberg & Grant 2012; Norgaard 2006a; Lertzman 2015; Spence, Pidgeon & Uzzell 2009) that particular focus has been given to certain aspects of human dimensions and these dominate the literature. These aspects are:

- Consumer behaviour
- Domestic realm behaviour

- Attitudinal predictors of environmental behaviour (e.g. values, goals, concerns, beliefs)
- Structural barriers to carrying out environmental behaviours
- Developing interventions to change behaviour

Research has tended to identify lack of information or awareness about climate change and the human activities that cause climate change as a primary reason for lack of appropriate response (see Norgaard 2006a for review of this literature). But interventions to address information-deficit and to change behaviour appear to be having limited long-term success, despite the prevalence of this kind of research (Page & Page 2011; Crompton & Kasser 2009; Klein et al 2014 p911).

## **2.2.2 Psychosocial factors influencing behavioural responses**

### **Underlying drivers of behaviour**

Research that seeks to dig below the surface level of environmental behaviour<sup>6</sup> to understand *why* people behave the way they do often stops at the level of values and attitudes, which are analysed for their relationship to each other and to behaviour. There is a considerable body of knowledge that has now been produced about correlations between these variables. However, whilst certain values and attitudes have been found to be reliable predictors of behaviour they are not the sole determinant (e.g. see Whitmarsh & O'Neill 2010). Other psychological and contextual factors also come into play as shown in Fig 2.1, which creates the complexity to which Stern (2000) refers, and means people do not always act in ways that are consistent with the values they may say are important to them.

Discrepancy between values and behaviour has been referred to as the 'values-action gap' (Blake 1999; Maio 2011; Murtagh, Gatersleben & Uzzell 2012) and 'attitude-behaviour gap' (Kollmuss & Agyeman 2002; Gifford 2011; Stoll-Kleeman et al 2001). This possibility for

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<sup>6</sup> Environmental behaviour is action that has consequences for the natural world. This behaviour could also be a response to ecological crisis

incongruence is the starting point of my study: it is concerned with developing understanding of factors affecting enactment of pro-environmental values through behaviour, namely behaviours that are adaptive responses to ecological crisis. The specific context for this enactment is the individual in their work to influence and improve pro-environmental practices in their organisation.

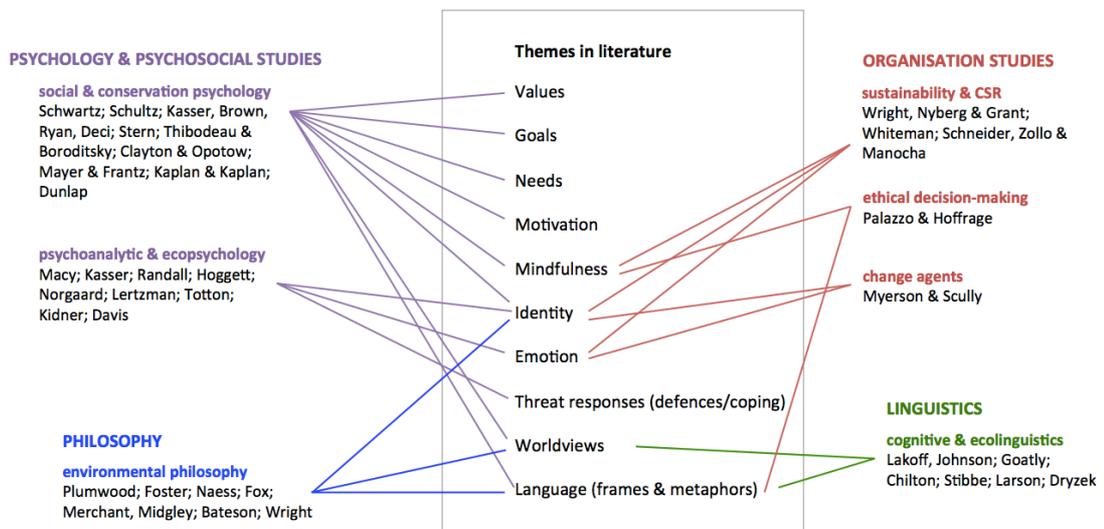
Compared to the amount of studies on environmental behaviour, there is a dearth of research on the underlying psychological drivers of environmental behaviour such as motivations, desires, fears, needs and impulses, particularly as they interact with contextual forces (Lertzman 2015; Bartlett 2011; Uzzell & Rätzl 2009). Several scholars have called for more research into underlying processes shaping behaviour. For example, Bartlett (2011) says,

Until we begin to understand more fully how people's motivations, desires, and senses of self and of belonging are played out under Western models of consumer-driven global capitalism, the psychology of sustainability will be an incomplete one... It is an area where... the future of the psychology of sustainability lies (pp4-5).

These drivers of behaviour are aspects of the self that are often in conflict with each other, and play out in processes mostly below the level of conscious awareness and rational thought (Kahneman 2013; Breakwell 1986; Vignoles et al 2011; Lertzman 2015; Maio et al 2011; Thibodeau & Boroditsky 2011; Lakoff & Johnson 1980; Cramer 1998; Rogelberg 2006; Willig & Stainton-Rogers 2010) which makes conducting research into these processes more challenging. As Swim et al (2011 p245) say, "Although people are, for the most part, able to articulate their opinions, beliefs, and preferences accurately, they are notoriously poor at recognizing the causes of their behaviour". I return to discuss methodologies for generating this kind of data in the next part of the thesis.



Figure 2.3 Mapping themes in literature by academic field



In the sections that follow I take these themes and discuss the relevant literature in depth, explaining both during the discussion and in a conclusion at the end of each section how I use the insights and theories in my study. This discussion also provides background information that readers unfamiliar with the theory may find useful for understanding the findings of my study. Some themes have been grouped together, forming the following structure for my discussion:

- Values, goals, needs and motivation
- Identity and the self
- Psychological threat
- Cognitive frames
- Cultural worldviews

I begin my discussion with values because this is the starting point for my study into psychosocial factors affecting enactment of pro-environmental values, and because it is the place where many other studies stop.

## **2.3 VALUES, GOALS, NEEDS + MOTIVATION**

In this section I discuss literature on values, goals, needs and motivation with regard to environmental behaviour and responses to ecological crisis, and explain how the insights from this work inform my research. I present my conclusions about this literature in two parts: after the subsection on values and goals, and after the subsection on needs and motivation, to make it easier for the reader to follow my thinking.

### **2.3.1 Values and goals associated with pro-environmental behaviour**

The literature indicates that values and goals are reliable predictors of behaviour, so the values and goals that people hold are important factors to take into account in researching factors influencing human responses to ecological crisis.

From a psychological perspective, values are the psychological representations of what we consider to be important in life (Rokeach 1973 cited in Crompton 2010). As guiding principles in life, they are the basis for our attitudes. When activated, values become “infused with feeling” (Schwartz 2010 p2) and play a crucial role in motivating behaviour (Schwartz 2010; 2012b). Goals and aspirations are related to yet distinct from values, reflecting aspects of life deemed worthy of striving for (Grouzet et al 2005). The strength and salience of values in individuals is influenced by the relative strength of these values in wider society (Kasser et al 2004), as Uzzell & Rätzzel (2009 p341) state, “values and attitudes are not formed in a social and cultural vacuum”. Values that are salient are those that have priority in the mind.

There is a considerable body of knowledge in social psychology on correlations between values and other attitudinal factors such as life goals, concerns and beliefs, and between these variables and pro-environmental behaviour (e.g. Schultz et al 2005; Bardi & Schwartz

2003; Brown & Kasser 2005; Sheldon & Kasser 2011). Studies show that the more strongly individuals subscribe to values beyond their own immediate self-interests (i.e. self-transcendence, prosocial, altruistic or biospheric values) the more likely they are to engage in pro-environmental behaviour (Steg & Vlek 2009; de Groot & Steg 2010).

I have drawn on the seminal work by Schwartz (1992; 2012) and Grouzet et al (2005) on the content of values and goals, which shows how different values and goals are organised in the mind, as illustrated in Figures 2.4 and 2.5 below, because of the implications of values and goals for motivating pro-environmental behaviour. It seems that some value types and goals are experienced as compatible and some as oppositional. The key oppositional conflicts are between self-transcendence and self-enhancement values, and between intrinsic and extrinsic goals. The oppositional structure implies that when one set of values is activated in the mind the other set is suppressed, making it difficult for people to think about both sets of values at the same time, and to simultaneously pursue behaviours congruent with both these values. With compatible values, activating one set is likely to also activate the adjacent compatible set. Activation refers to the process of eliciting or 'switching on' values in the mind. The more a value is activated, the stronger it becomes and the easier to subsequently activate. In the diagrams below, the values and goals that are compatible are adjacent and those in opposition are on opposite sides of the circumplex.

Fig 2.4 Theoretical model of relations among 10 motivational types of values (Schwartz & Boehnke 2004)

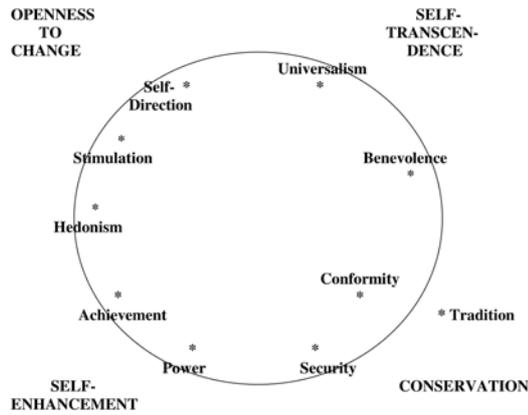


Fig 2.5 Circular representation of goals (Grouzet et al 2005)

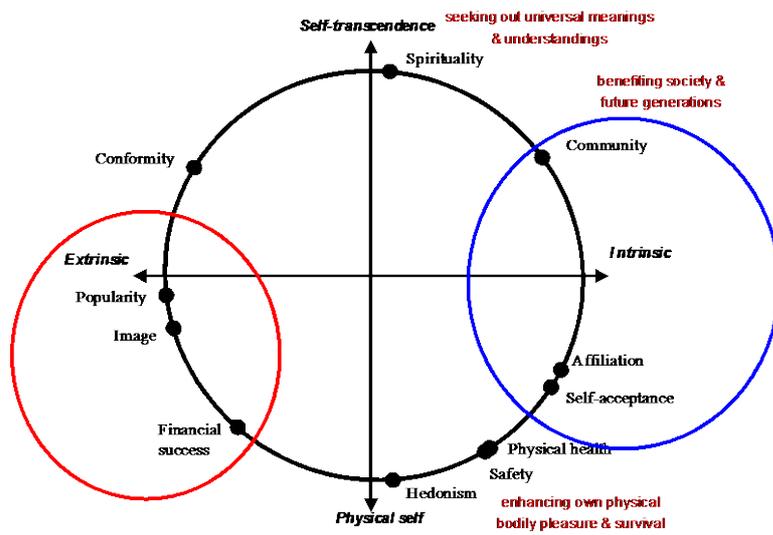


Figure 2.6 shows how Grouzet et al (2005) structure of goals maps onto Schwartz (1992) and Schwartz et al (2012) revised structure of values, to demonstrate the compatibility of these theories.

Fig 2.6 Mapping of values onto goals

Schwartz value domains	Schwartz value types	Grouzet et al goal type	Grouzet et al goal domains
Openness to change	Stimulation		Intrinsic
	Self-Direction	Self-Acceptance	
	Hedonism	Hedonism	
Self-Transcendence	Universalism	Community Feeling	
		Spirituality	
	Benevolence	Affiliation	
Conservation	Security	Safety	
		Physical health	
	Tradition	Spirituality	
	Conformity	Conformity	
	Humility		
Self-Enhancement	Power		Extrinsic
	Achievement	Financial success	
	Face (2012 revised)	Image	
		Popularity	

In the Schwartz model, the value domain associated with pro-environmental behaviour is labelled Self-Transcendence, made up of value types *universalism* and *benevolence*.

Benevolence is concern with caring for in-group members. Universalism extends beyond this and is associated with understanding, appreciation, tolerance and protection for the welfare of all people and for nature. They are called self-transcendence values because they are concerned with more than just individual self-interest. In the Grouzet et al model, the goal domain that is associated with pro-environmental behaviour is labelled Intrinsic. Intrinsic goals are called this because they are understood to be inherently satisfying to pursue. This is because achieving intrinsic goals of *community feeling* (making the world a better place, with associated sense of agency), *affiliation* (close personal relationships) and *self-acceptance* (knowing and liking oneself, personal growth, feeling competent and autonomous) satisfies basic psychological needs of autonomy, competence and relatedness (Grouzet et al 2005). I discuss needs further in the next subsection (see 2.3.3).

Self-enhancement values and extrinsic goals are associated with less concern for the wellbeing of other people and the natural world (Kasser et al 2004; Schultz et al 2005), and with higher materialism (Kasser et al 2004). These values and goals are to do with power over others, achieving external rewards such as financial success, and praise and positive evaluation by others. Rather than satisfying basic psychological needs directly, extrinsic goals are pursued as a means to some other end or to compensate for a deficiency in capacity to satisfy basic needs. Self-enhancement values are anxiety based: they are self-protective values pursued to cope with anxiety in situations of uncertainty, whereas self-transcendence values are anxiety free (Schwartz 2012). Anxiety has been shown to reduce empathy because it is linked to egocentrism (Todd et al 2015). I explain egocentrism in the section on identity and the self (see 2.4.3).

Environmental campaigns that appeal to social status or offer financial rewards may well be effective in promoting particular behaviours in the short term, but the individual is likely to experience reduced motivation to act in other pro-environmental ways (Kasser & Crompton 2011), and it could result in a rebound effect. The phenomenon of rebound occurs when some of the environmental benefits from a behaviour change such as energy efficiency are cancelled out by changes in behaviour in other areas, so for example money saved on energy bills is used on flights abroad or using the car more. There is evidence that people who perceive themselves as leading green lifestyles are often in reality the most-carbon intensive, rewarding themselves for their good behaviour with skiing holidays abroad for example (Adam 2008). Mazar & Zhong (2010) find similar contradictory behaviour. This rebound effect has serious implications for climate change mitigation (Jenkins et al 2011).

It is thought that we all have the full range of these values available to us but people may have dispositional tendencies to prioritise some values above others and these ones are

more salient in the mind. Dispositional commitment to a value or goal is gained through accumulated experience, and can change over time: values are not character types (Darnton & Kirk 2011; Holmes et al 2011). People seem to make trade-offs between values within an integrated system of values, so a particular behaviour may be in line with one value but because it is in conflict with others it is not enacted (Crompton 2010).

Values are not the sole determinants of environmental behaviour (Whitmarsh & O'Neill 2010) and pro-environmental values are not consistently enacted all of the time or across all areas of our lives (e.g. Maio 2011; Maio et al 2001; see also Jenkins et al 2011). I have chosen to focus my research on people oriented to pro-environmental values and goals because I am interested in developing understanding of factors affecting enactment of these values and goals through behaviour - through adaptive responses to ecological crisis.

### **Priming of values through social priming**

People are not rigidly fixed in their value and goal orientation, and can be influenced, or primed, into activating certain values, without them even being consciously aware of how they have been manipulated (e.g. Maio et al 2001; Chilton et al 2012). Priming in psychology refers to influencing responses in people by exposing them to a particular stimulus, which then activates particular associations in memory. Experimental studies show that people can be primed to engage or switch on certain values in the mind by being asked to think about these values and their importance, and this activation appears to subsequently influence their judgements, concerns and behaviour over the short term (Chilton et al 2012; Maio et al 2009; Maio et al 2001). Repeated activation of values serves to strengthen them relative to other values, and this makes them easier to activate.

Outside the psychology lab in everyday life, strengthening of values can occur through exposure to and internalisation of cultural messages. The work of Kasser and others suggests that the relative strength of particular values in society as expressed through mainstream media and advertising influences the strength and salience of values in individuals (e.g. Kasser et al 2004; Flouri 1999; Alexander & Crompton 2011). This highlights the important role that language (both words and images) has in influencing cognition and behaviour. As the linguist Paul Chilton observed, language is a constant form of priming (Chilton 2012), and studies such as those by Thibodeau & Boroditsky (2011) show how people can be unwittingly primed to think and respond in particular ways through exposure to certain kinds of language and metaphors. With recurrent exposure to particular language used to talk about something, such as the natural world, through for example mainstream media, those words and concepts are stored in memory as a packet of knowledge together with a set of emotion and value associations forming a cognitive frame. This frame can later be activated in the mind by use of those words, and the more the frame is activated the stronger the neural network becomes and the easier it is activated. I return to discuss cognitive frames in more depth in section 2.6, but for now I merely wish to highlight this insight about the association between values, emotions, knowledge and language in the mind.

### **2.3.2 Conclusions from values literature**

The insight from the literature that people are not rigidly fixed in their value and goal orientation but are susceptible to being unconsciously primed by contextual forces into strengthening certain values and goals has major implications for our understanding of (mal)adaptive human responses to ecological crisis.

Self-transcendence values and intrinsic goals may be predictors of pro-environmental behaviour, and there is strong support from psychologists that activating and strengthening

self-transcendence values and intrinsic goals is likely to motivate lasting pro-environmental behaviour (see Kasser & Crompton 2011). But it is clear from the literature that values and goals are not the sole determinants of behaviour (e.g. Whitmarsh & O'Neill 2010).

The way values and goals can be primed through interaction with contextual forces seems a crucial consideration for research. One such contextual force is the materialistic consumer values that are dominant in industrial growth societies, which are expressed and reinforced through public, media and political discourse and a multi-billion dollar advertising and marketing industry. From the perspective of the literature just discussed, the discourses of capitalism are powerful cultural primes that act against a strengthening of pro-environmental values and goals.

Because of the priming effects of context on value strength and salience, I have taken the social interactions of the research participants in the context of their organisation into account in my analysis, and have explored its effect on the participant. For example, I have considered perceived incongruence with organisational values, how the participant felt about that, and how they dealt with it.

Findings about priming, rebound and trade-offs between values also informed my decision to make the pro-environmental values of the participants the starting point of my study into their lived experience because as the literature indicates, some divergence from these values in their behaviours is likely, with implications for adaptive responses to ecological crisis.

### **2.3.3 Needs, motivation, vitality and mindfulness**

In my analysis and interpretation I draw on Self-Determination Theory (SDT; Deci & Ryan 2000) and related literature to explore how the interrelating factors of needs, motivation,

vitality and mindfulness affect the research participant. I consider the implications for ecologically adaptive responses and for the efficacy of the participant in influencing pro-environmental practices in their organisation.

## **Needs**

Basic psychological needs are a driver of behaviour, and the manner and extent to which needs are satisfied has consequences for type of behaviours and effectiveness of behaviours. As such, these aspects of experience are important considerations in developing better understanding of factors affecting responses to ecological crisis. Needs and goals are linked, as explained earlier (see 2.3.1). Competency, autonomy and relatedness have specific definitions in SDT:

- *Competency* is “feeling competent and efficacious, having an effect on the environment as well as attaining valued outcomes within it, engaging in optimal challenges and experiencing mastery of effectance in the world” (Deci & Ryan 2000). The authors note that competency requires feedback, which can be either supportive or undermining of autonomy in the way it is given.
- *Autonomy* is the desire to self-organise experience and behaviour and for activity to be concordant with one's integrated sense of self and intrinsic choices. It is the sense of enacting values through behaviour, the experience of integration and freedom, and includes the human tendency to work towards personal growth and integration of new experiences into a coherent sense of self.
- *Relatedness* is seeking attachments and experiencing feelings of security, belongingness and intimacy with others.

Competency, autonomy and relatedness needs are motivations for particular kinds of experience. However, SDT states that although humans may have evolved tendencies towards psychological growth and integration, the social context can either support or thwart these natural tendencies. This suggests that the organisational context in which the

research participants work, will be supportive or undermining of their needs satisfaction, with implications for psychological wellbeing and their effectiveness.

## **Motivation**

The term 'motivation' comes from the semantic root 'to move': it is a driving force that initiates and directs behaviour and is concerned with meeting needs (Stangor 2010). Motivation is goal-directed. In my study I draw upon a particular set of theories of motivation, namely Self-Determination Theory, that have developed from empirical research. SDT differentiates between the *content* of the goal to which behaviour is directed i.e. intrinsic or extrinsic, and the *regulatory processes* involved in motivating behaviour. I have already discussed intrinsic and extrinsic goals (see 2.3.1). With regards to regulatory processes, SDT finds that motivation exists along a continuum from autonomous to controlled. Autonomous motivation is when we do something because we find it intrinsically interesting or important, and the regulatory process is internal. Controlled motivation has a regulatory process with an external starting point. It comprises four stages of internalisation such that the more internalised the external motivation the more autonomous the person will feel enacting the behaviour. These four stages of external regulation are described in Fig 2.7 below, along with intrinsic motivation. Whether a person *wants to* (autonomous regulation) or feels they *have to* (controlled regulation) perform a pro-environmental behaviour has different implications for the likelihood of the behaviour happening and enduring over time (Osbaldiston & Sheldon 2003). The few studies on this show that pro-environmental behaviour is associated with a higher level of autonomous motivation (e.g. Pelletier et al 1998; 1999; Osbaldiston & Sheldon 2003; Pelletier 2002). A study by de Groot & Steg (2010) found that the more the respondents were altruistically and biospherically oriented (similar to Schwartz's self-transcendence values), the more they were autonomously motivated to act pro-environmentally.

Fig 2.7 Types of motivation (from Deci & Ryan 2000; Ryan & Brown 2003)

External regulation	No internalization, behaviour is controlled by external forces and pressures and is not autonomous
Introjected regulation	Some internalisation but motivation still relatively controlled as there is lack of desire to carry out the behaviour. Inner pressure and conflict is experienced
Identification	More appreciation of value of activity, greater ownership of behaviour, less inner conflict, more autonomous
Integration	Internalisation of external regulation is most complete. Behaviour is integrated with other aspects of the self, and is fully volitional and autonomous.
Intrinsic motivation	There is no external regulation - behaviour is inherently interesting and important, and fully autonomous.

### **Vitality**

SDT predicts that needs satisfaction maintains or enhances vitality (Ryan & Deci 2008).

Vitality is physical and mental energy that is available to the self for action. When vital, people experience a sense of enthusiasm and aliveness, are more productive and cope with stress and challenges better, and report greater psychological wellbeing (Ryan et al 2010; Ryan & Deci 2008). Controlled regulation is likely to deplete energy whereas autonomous regulation can be vitalising. With less energy, the behaviour is likely to be performed less effectively. Vitality and effort are rarely taken into account in environmental research.

One study finds that the more effort - and by implication energy - that is required to perform a pro-environmental behaviour, the stronger the relationship becomes between the behaviour and autonomous motivation (Green-Demers et al 1997).

### **Mindfulness**

In SDT, mindfulness is considered a state of consciousness that enhances autonomy because in mindful mode people are better able to make conscious choices to engage in behaviours that are authentic and compatible with their intrinsically chosen values and interests rather than in accord with socially derived forces or pressures i.e. external regulations (Deci et al

2015; Brown, Ryan & Creswell 2007a; 2007b). If these intrinsically chosen values are pro-environmental, then mindfulness could play a useful role in supporting congruent enactment.

Mindfulness refers to open and receptive awareness and attention to what is occurring internally and externally in the present moment, without judgement (Deci et al 2015; Kabat-Zinn 1990). It is an impartial witnessing of the contents of consciousness (Brown & Ryan 2003): internal emotions, thoughts and physical body sensations, and external events as perceived through the senses. Mindfulness is a state of heightened embodied awareness, clear perception, and insightful understanding of what is occurring. Brown & Ryan (2003) explain that while almost everyone has the capacity to attend and be aware, this capacity varies and can be sharpened or dulled by a variety of factors. People also differ in their propensity or willingness to be aware and sustain attention to what is occurring in the present moment. The capacity for mindfulness can be cultivated through attentional training such as meditation and other practices (Kabat-Zinn 1990; Williams & Penman 2011; Brown & Cordon 2009).

Mindful awareness is thought to enhance autonomy because it fosters fuller access to different parts of personality. We can come into better contact with needs, feelings, interests, values, emotions, introjects and suppressed experiences as well as with external conditions. This contact enables integration of parts of the self, thereby enhancing autonomy (Deci et al 2015; Ryan et al 2012).

SDT regards attentional sensitivity to the internal and external aspects of experience as crucial to the operation of healthy regulatory processes. Emotions, body sensations, thoughts and sensory perceptions are cues, sources of information that can guide people

toward effective behaviour and growth (Deci et al 2015; Ryan et al 2006 cited in Deci et al 2015). Brown & Ryan (2003) and Kabat-Zinn (1990) refer to Schwartz's (1983) model that shows how self-regulation of health is based on feedback loops that can be enhanced through attention:

Disattention → disconnection → disregulation → disorder → disease

Attention → connection → regulation → order → health

The model states that if each stage persists over time then progression to the next stage ensues. Through repeatedly not attending to an emotional, physical body or interpersonal cue, the individual becomes habituated to the stimulus so it is no longer accessible to awareness, and disconnection in feedback occurs. This disconnection makes it more difficult for the system to self-regulate. Over time, disregulation turns into a state of disorder and eventually into disease. In addition to ignoring or suppressing signals, disregulation can also occur when signals are exaggerated (Brown & Ryan 2003). Shapiro & Schwartz (1999) later adapted this model to include an initiating antecedent of intention, in recognition of the importance not just of attention but also of particular qualities to be brought to that attention. These are qualities such as empathy, non-judgement and compassion that help generate awareness beyond the self, cultivating a concept of the self as part of a wider interdependent and interconnected system. They call this 'intentional systemic mindfulness'. The intentional qualities described by Shapiro & Schwartz fit very well with theories of self-transcendence values already discussed (see 2.3.1). There is evidence from neuroscience studies to support this. Regular meditation has been found to increase activity in the insula region of the brain, which as Williams (2012) explains "is integral to our sense of human connectedness as it gives us access to those body sensations that help to mediate empathy in a very real and visceral way". The sense of interconnectedness cultivated through intentional systemic mindfulness is related to the construct of ecological identity - a topic that is explored in some depth in the next section (see 2.4.4).

The supportive role of mindfulness with regard to autonomous self-regulation is important because it seems people naturally tend to internalise the values and regulations of their social groups, facilitated by feelings of relatedness and competence (Deci & Ryan 2000). For this reason Kasser (2012) says "if you hold one value but go into a context where an oppositional value is continually primed it is going to be difficult to stick to the original value. You have to mindfully attend to it". Without mindful awareness, people are likely to react to stimuli automatically, "without reference to whether the responses are aligned with their values and interests, or whether they are likely to satisfy needs. As such, their behaviours are more susceptible to ego-involvements, as well as external pressures and seductions" (Deci et al 2015 p120). Ego-involvement is when a person's self-esteem is contingent on achieving extrinsic goals and positive evaluation by others. Mindfulness, says Buddhist teacher Jack Kornfield, is a way to free oneself from the "egoistic, hedonic treadmill of continually avoiding discomfort and seeking pleasure from outside sources that are ultimately unsatisfying and short-lived" (1977 cited in Kingston 2013). Indeed, extrinsic goal orientation is linked with lower subjective wellbeing (Brown & Kasser 2005).

In terms of my study, the external pressures and stimuli to which a person may be reacting automatically and unconsciously may or may not be pro-environmental, for example consumerism and materialism as noted earlier (see 2.3.2). Rosenberg (2004) argues that mindfulness can help people become aware of how they are subtly induced to engage in consumerist behaviours. Brown & Kasser (2005) found trait (dispositional) mindfulness is associated with lower materialism and consumerism, intrinsic goal orientation and pro-environmental behaviour. Similarly, Armstrong (2012) found that learning mindfulness reduced reliance on consumption to fulfil needs.

Another study on mindfulness and corporate social responsibility (CSR) found that mindfulness meditation practice by CSR managers seemed to enhance their social consciousness (Schneider, Zollo & Manocha 2010; Zollo et al 2007). The meditative practice is thought to have affected the way the CSR managers perceived themselves, their values, virtues and limitations, and how they perceived their interdependencies with the environment, including the impact of their decisions and actions on the social context in which their company operated. Socially responsible behaviour is thought to have become embedded into their identity through changes in deeply rooted psychological characteristics, and so it is performed automatically (Zollo et al 2007). In SDT terms, the meditation programme helped internalise socially responsible behaviour from being an external regulation into an autonomous behaviour requiring less conscious effort. The study also found that self-transcendence values increase the propensity to engage in socially responsible behaviour, in keeping with studies finding links between self-transcendence values and pro-environmental behaviour (see 2.3.1). Although this study is about pro-social rather than pro-environmental behaviour, the finding that socially responsible behaviour can be embedded and integrated into identity through meditation practice is relevant.

#### **2.3.4 Conclusions from needs + motivation literature**

These theories about needs, motivation and mindful awareness indicate that these are highly significant factors influencing individual behaviour, and as such are important to consider in relation to understanding maladaptive responses to ecological crisis. Yet there is hardly any research on these factors, whether in the context of domestic or organisational environmental practices. Below are five key points I take from this literature.

*Firstly*, the extent to which a person *wants* to or feels they *have* to perform a pro-environmental behaviour has implications for:

- The likelihood of the behaviour happening and enduring over time, particularly if that behaviour requires or is perceived as requiring a lot of effort
- The amount of energy available for carrying out the behaviour effectively
- The extent to which the behaviour supports or thwarts satisfaction of core psychological needs, with consequences for psychological wellbeing and hence effectiveness

*Secondly*, because social contexts can support or thwart needs satisfaction (including natural tendencies to be autonomous and experience inner coherence and integration in sense of self), a psychosocial research perspective that takes into account the influence of social forces is useful for building a greater understanding of the role of needs in responses to ecological crisis.

*Thirdly*, the literature suggests that embodied awareness and attentional sensitivity can support congruent enactment of intrinsically chosen pro-environmental values through behaviour, and can help resist social primes that have detrimental outcomes for the natural world such as those that encourage pursuit of extrinsic goals and consumption of material goods.

*Fourthly*, the model of self-regulation through attention could apply not just at the level of the individual but also at the level of human systems interacting with earth systems.

Disattention to ecological cues has led to the disorder of natural cycles, and to a disruption of processes beyond boundaries that are safe for life.

*Fifthly*, competency requires feedback. Disattention to feedback signals in internal and external aspects of subjective experience (emotions, body sensations, thoughts and sensory

perceptions) reduces the ability to respond appropriately and proportionally to stimuli, which in my research means ecological crisis.

### **Relevance to my research**

Because of the implications for type and effectiveness of behaviour of needs, motivation, and vitality, I have applied Self-Determination Theory in my analysis and interpretation of participant accounts. I am interested in the role these factors play in their experience and in shaping their cognition and behaviour, and in the dynamics of the relationship of these factors with other psychosocial factors.

Whether behaviours appear autonomous or controlled, and the extent to which needs appear satisfied, and whether energy levels are being maintained or depleted are considerations in my analysis.

The effect of social context on needs satisfaction is taken into account in my research by enquiring into the participants' lived experience of seeking to influence pro-environmental practices *in their organisations* – it is a situated account. It should not be assumed that environmental behaviours performed by individuals in domestic settings will translate across into the workplace (McDonald 2011).

I analyse participants' accounts for indications of embodied mindful awareness, and I also draw on my own embodied experience in my encounters with research participants as part of a reflexive methodology. I also enquired into their experience of doing mindfulness meditation practice because of the links found between mindfulness and pro-social and pro-environmental behaviour.

The importance of conscious awareness has also inspired my construction of a model that makes visible underlying psychosocial processes influencing cognition and behaviour with regard to the natural world (see 6.3). The user of the model may recognise the dynamics of their situation and identify points of intervention in order to enhance their autonomy and vitality, and improve their efficacy in influencing their organisation to respond appropriately and with proportionality to ecological crisis.

## **2.4 IDENTITY + THE SELF**

In this section I discuss literature on identity with regard to responses to ecological crisis, and explain how the insights from this work inform my research.

Following a brief introduction to the literature linking identity with pro-environmental values and behaviour, I provide some background information about the constructs of identity and the self as used in this thesis. I then go on to explore the concept of ecological identity, including what an ecological identity means, how it may be subjectively experienced, and factors that support or inhibit strengthening of this identity. The section continues with an introduction to two studies on identity of change agents in organisations, to which I compare my findings in chapter 5.

### **2.4.1 Identity and pro-environmental behaviour**

Various psychology studies suggest that identity moderates the relationship between values and behaviour. For example, Gatersleben et al (2012) find that people tend to act in ways that are consistent with their self-identity, and van der Werff et al (2013) find that pro-environmental values that are linked to the self are more influential in guiding behaviour. Clayton & Opatow (2003) regard identity as fundamental to understanding human relationship with the natural world, and call for a “better understanding of the connections

between environmental issues and identity” (p19). Identity has not received as much attention as values and attitudes in human dimensions of ecological crisis research, and my study responds to this gap.

According to Schultz & Tabanico (2007), one of the most fundamental beliefs that a person holds is about their relationship to the natural world: am I part of nature, or am I separate from nature? A subjective felt sense of self as being part of and connected with the natural world has been termed ‘environmental identity’ (Clayton 2003). In the literature, other terms are used to refer to similar constructs for example ecological identity, ecological Self, nature connectedness, nature relatedness and inclusion of self with nature. Sense of self as part of nature has been found to be a reliable predictor of pro-environmental behaviour and it is also positively correlated with self-transcendence values (Clayton 2003; Schultz & Tabanico 2007; Mayer & Frantz 2004; Nisbet, Zelenski & Murphy 2009).

It is worth noting that other psychology literature uses the term ‘environmental identity’ and ‘pro-environmental identity’ interchangeably to mean the extent to which environmentalism is a central part of who they are (e.g. Gatersleben et al 2012; Whitmarsh & O’Neill 2010). This is measured in terms of concerns and perceptions of consumer behaviour. This is an altogether different construct to the meaning of ‘environmental identity’ used by Clayton (2003).

In this thesis I use the term ‘ecological identity’ for three main reasons. Firstly, to reduce the possibility of confusion with the ‘environmental identity’ definition of Gatersleben et al and Whitmarsh & O’Neill. Secondly because as I discuss shortly (see 2.4.3), I incorporate an understanding of nature connection from ecopsychology as including connection with wild nature within the self not just with the external world of non-human nature, which is

Clayton's (2003) definition. And thirdly because 'environmental' is a problematic framing from a cognitive linguistics perspective as I discuss in 2.6.2.

Strength and salience of environmental/ecological identity may be frustrated by a perception of humans as part of one's in-group and non-human external nature as part of one's out-group. This in-group/out-group distinction is regarded as a consequence of a perceived split between humans and nature (Crompton & Kasser 2009), which I discuss further in the section on cultural worldviews (see 2.7.2), and in the section on cognitive frames (see 2.6.2). Social identity theory states that people tend to show bias towards those they see being part of their in-group and prejudice and discrimination to those they see as part of their out-group. Identifying nature as out-group may incline people towards environmentally harmful behaviour (Crompton & Kasser 2009). Identity is an important component in understanding responses to ecological crisis. If a sense of self as part of nature is not salient, the literature suggests this will have consequences for the kinds of actions performed including the way in which pro-environmental values are enacted.

#### **2.4.2 Background information on identity and the self**

Vignoles et al (2011) report that there is confusion in psychology and sociology literature about the definition of 'self' and 'identity, and the processes by which identity is formed and changed. The terms 'self' and 'identity' are often used interchangeably (Soenens & Vansteenkiste 2011). In this subsection I provide an explanation of constructs that I use in my research and in this thesis. I conclude the section with an outline of how I have drawn upon these ideas and theories in my research.

### **Integration of parts**

Each individual can be understood as having a wide range of values, needs, abilities, beliefs, feelings etc. There is a process of inner dialogue between different parts, and some of these parts become integrated into a pattern that is meaningful to the individual, and it is this pattern that constitutes a sense of self. There are conscious and unconscious parts of the self and information can move between these parts in both directions via repression or suppression (from consciousness into unconsciousness) and awareness (from unconsciousness into consciousness). Self-identity (also called self-concept) refers to how a person sees themselves, and encompasses both explicit and implicit processes and content (Vignoles et al 2011). Each person has a set of multiple self-identities that are hierarchically arranged in the mind, and the strength and salience of a particular identity is a function of the commitment of the individual to that identity and also contextual factors such as whether social interactions affirm that identity (Zavestoski 2003; Clayton & Opatow 2003). Some self-identities are less likely to motivate pro-environmental behaviour than others, and if these are salient then they can form a barrier to pro-environmental behaviour, even if the person also holds pro-environmental values. An example is a self-identity as a car driver (Stradling et al 1999, cited in Gatersleben et al 2012), which is reinforced in industrial growth societies by cultural messages, structural supports and the experience of convenience.

SDT holds that humans have an inherent tendency toward growth development and integrated functioning (Deci & Vansteenkiste 2004). Self-identities may be integrated and unified to varying extents (Vignoles 2011), and this has consequences for sense of inner coherence and psychological wellbeing (Deci & Ryan 2000). A particular self-identity may or may not be congruent with the growth-strivings of the self or be supportive of needs satisfaction (Soenens & Vansteenkiste 2011). Kahn's (2003) work on developmental aspects of identity formation finds that a sense of unity in identity at any given time is due to

underlying cohesion in cognitive structures, with transformations in the cognitive structures helping to create a sense of a changing identity over time.

### **Self-in-relation**

Sense of self emerges through our ongoing embodied interactions with the world, including the nonhuman natural world (Kalof 2003; Kahn 2003). As Gregory (2009) and many others say, the self is always self-in-relation, and this understanding is the basis of the psychosocial approach. Social science research on identity tends to limit 'the world' to the human realm and overlooks the non-human natural world (Clayton & Opatow 2003; Hamilton 2013), but this larger context is a key feature in many indigenous worldviews and in Eastern philosophies, which regard the self as being in a process of perpetual construction, emerging from a constantly changing, interconnected whole (WWF 2011). As Sogyal Rinpoche (1995, cited in WWF 2011 p40) says, we cannot be separated from our context any more than a wave can be separated from the sea.

### **Self-as object and self-as-process**

Self-Determination Theory (SDT) holds that the self-concept can be experienced in two different modes: self-as-object and self-as-process (Ryan & Brown 2003).

*Self-as-object* (also referred to as the Me self, narrative self or ego-self) places the self in the role of object, detached from its surroundings. This mode of self-concept is concerned with the creation, enhancement and protection of personal identity, identifying with particular beliefs and adhering to socially and culturally derived self-images. It wants to 'get on' in the world and get by in the face of threat (Washburn 1995 cited in WWF 2011). The effect of this concern is to narrow down competing possibilities for thought and action to those that preserve, protect and enhance Me (Brown, Ryan & Creswell 2007a). As a concept of self

largely internalised from the reactions and opinions of others, it is linked with ego-involvement. Ego-involvement is associated with feelings of pressure and tension and with instability of self-esteem (Brown, Ryan & Creswell 2007a; Ryan & Brown 2003). In SDT, ongoing concern with the self is understood to be a by-product of need deprivation, deficiency or conflict, and suggests a psychological vulnerability.

Whilst the self-as-object has a narrative focus and experiences the self across time, the *self-as-process* is an experiential mode focussed in the present moment. This is the mode of mindfulness, discussed earlier (see 2.3.3). Rather than being an object, the self is the very process of integration and assimilation, bringing coherence to life experiences. In this mode, a person adopts an observer stance to the contents of their consciousness, including the workings of the Me self and recognises Me as “a creation of thought, as are one’s reactions to events, defences, identities and so on” (Ryan & Brown 2003 p75). “When the functioning of the Me self can be observed then one is clearly not that Me”, explain Brown, Ryan & Creswell (2007b p280). In mindful state there is no fixed concept of self to protect or enhance, and this Ryan & Brown (2003) maintain, is the true basis for wellbeing.

Self-reflection is understood in SDT to be a form of self-focussed reflexive consciousness where attention is in service of self-relevant thought: we are operating *within* thoughts of the Me self. Mindfulness is different to self-reflection because in mindful mode we are operating *upon* thought, including self-reflective thoughts. Self-focussed modes of conscious processing involve controlled self-regulation and can therefore be energy depleting (Brown, Ryan & Creswell 2007b; Deci et al 2015), as discussed earlier (see 2.3.3).

### **Relevance to my research**

Understanding the formation of sense of self and self-identity as an ongoing process that unfolds as we interact with an ever-changing world emphasises the dynamic nature of human consciousness and cognition and the fundamental entanglement of our internal and external worlds. The psychosocial approach I have adopted in my research is useful for developing understanding of these processes and their influence on the research participants in their organisational interactions.

SDT holds that an identity that is well-integrated with other aspects of the self will be experienced as more coherent. Linking this insight to SDT theory on needs and motivation, the behaviour motivated by an integrated ecological identity will feel more autonomous, making it more likely to be performed effectively and to persist over time.

The constructs of and distinction between self-as-object and self-as-process are rarely acknowledged let alone built into the design of identity research, yet the ability when mindful to observe the ego-self and recognise ego-involvement and extrinsic goal striving as they arise in the mind offers the possibility for a different response that is more compatible with pro-environmental behaviour to be chosen instead. In my study, whether the research participants were able to access this mode at critical times in organisational decision-making processes was a factor I considered in my analysis.

#### **2.4.3 Understanding ecological identity**

I noted at the start of this section (see 2.4.1) that sense of self as part of nature has been found to be a reliable predictor for pro-environmental behaviour. This has been referred to as 'environmental identity' (e.g. Clayton 2003). However as I go on to discuss in this subsection, this construct can be expanded to include not just connection with the external

non-human world but also connection to nature within, to the psyche. In this thesis I refer to this as 'ecological identity'.

Environmental philosopher George Fox (1990) argues that a move towards such a transpersonal perspective is needed for motivation to act pro-environmentally to endure. In this section I explore what an ecological identity means, how it may be subjectively experienced, and factors that support or inhibit strengthening of this identity. I draw on these insights in my analysis and interpretation of research participants' accounts of experiencing nature.

### **Expanded sense of self and spiritual experience**

With a deep sense of connectedness to nature there is an expansion in sense of self beyond the narrow personal ego-self to encompass the wider world (Walsh & Vaughan 1993 cited in WWF 2011). The ecological Self is a concept introduced into western philosophy by Arne Naess (1986) and it refers to this expanded sense of self that includes concern for all living beings and the ecosystems that maintain them - which describes the value type of Universalism (see 2.3.1) and a 'deep green' ecological ethic (Curry 2011). In transpersonal psychology this sense of expanded awareness and fundamental connection to something beyond the ego-self constitutes a spiritual experience. It may be a 'peak' or 'plateau' experience. Maslow developed the concept of a peak experience to mean a state of optimal mental health characterised by intense emotional moments. Plateau experiences are less intense and longer in duration (Davis 1998). Spiritual experiences involve a pre-reflective way of experiencing the world, and this can make them very difficult to describe in words. Alan Watts wrote it involves trying to "speak the unspeakable, scrute the inscrutable and eff the ineffable" (1961 cited in Claxton 2000 p100). It is also an experience that people often do not want to reveal to others because they regard it as a special and intimate personal

experience, and fear it might be devalued or put down by others (Davis et al 1991). Peak experiences are often evoked in wilderness adventure activity and in natural places where the mystery and awe of nature is emphasised (Davis 1998). One study found that people who had peak experiences (peakers) “appeared to be less materialistic, less status-conscious, and more socially concerned than non-peakers” (Davis 1998 p 113). This echoes the findings from the study previously discussed (see 2.3.3) that finds positive correlations between mindfulness, intrinsic goal orientation, lower materialism and consumerism and ecologically responsible behaviour (Brown & Kasser 2005).

I am interested in the type of relationship the research participants have with nature, including sense of connectedness.

### **Nature connectedness and wellbeing**

According to the biophilia hypothesis humans have an innate instinct to connect emotionally with nature, particularly those aspects humans evolved to inhabit (Wilson 1984). The belief that this connection is rooted deep in our psyche is a defining premise of the recently emerged field of ecopsychology but it has also long been recognised by naturalists:

“I only went out for a walk, and finally concluded to stay out till sundown, for going out, I found, was really going in.” John Muir (1938)

With a psychotherapeutic orientation, ecopsychology asserts that our sense of wellbeing is affected by our sense of connectedness to nature, and that ecological decline has a negative emotional impact on us (Rozak 1995). Empirical studies show how closely human wellbeing is linked to connection with nature and the negative effect of alienation from nature (e.g. Kaplan & Kaplan 1989; MIND 2007; Mayer et al 2009; Nisbet et al 2011; Howell et al 2011;

Ryan et al 2010; or see Newton 2007 for overview). This has even led to a medicalising of this disconnected condition in children as 'nature deficit disorder' (Louv 2005).

From an ecopsychology perspective, and as the quote from John Muir suggests, nature connection is not just with the external nonhuman natural world around us, which is the usual definition of 'environmental identity' (e.g. see Clayton 2003), it is also connection with our own selves. Thus the project of ecopsychology is to 'rewild the psyche' (Totton, 2011; Smith 2010; Hasbach 2012; Rust 2008), which means rediscovery and reintegration of parts of the self such as the physical body, emotion, instinct and intuition in a journey towards wholeness. These are aspects of our selves regarded as having been separated off and devalued in modern industrial cultures in a dualistic worldview privileging rational thought. This worldview is regarded by many scholars as gaining socio-cultural dominance in the West with Descartes' ideas about mind-body dualism during the period of the Scientific Revolution, and is regarded as a root cause of ecological crisis (e.g. Plumwood 1993; Kidner 2001; 2007; White 1967; Merchant 1983). From this perspective, disconnection of humans from the external nonhuman natural world is a mirror of the disconnection within. As Macy (1993 p8) says, it is in presupposing that world and self are essentially separate that we imagine we can heal one before healing the other. I explore these ideas of mind-body dualism further in section 2.7 on cultural worldviews.

Whether the research participants included inner-nature connectedness in their accounts was part of my analysis. The definition of ecological identity in this thesis includes not just sense of self as part of external non-human nature (Clayton 2013) but also this ecopsychology perspective of connection with wild nature within the self.

### **Attention and restoration**

Kaplan & Kaplan (1993) propose that being in natural habitats can be restorative because of the type of attention that is used to engage with nature. They draw on William James (1892) distinction between involuntary and voluntary (directed) attention.

*Involuntary attention* is where the content is interesting and exciting so attention can be sustained with minimal effort. *Directed attention* however is effortful because it involves inhibition of other stimuli that are more attractive and potent. Directed attention is a limited resource and overworking capacity for directed attention results in mental fatigue. Natural habitats that provide a pleasurable and undemanding (i.e. not cluttered or confusing) context call forth involuntary rather than directed attention. Resting the capacity for directed attention is regarded as the route to recovery from mental fatigue. Kaplan & Kaplan call this mental state 'soft fascination', and there is a felt sense of being connected to a larger pattern.

There could be a link between the effortless soft fascination of involuntary attention and autonomous regulation and mindfulness (see 2.3.3). Self-Determination Theory states that controlled regulation of behaviour is likely to deplete energy whereas autonomous regulation can be vitalising because the behaviour is perceived as inherently interesting or important and basic psychological needs are being satisfied. When attention is focussed on what is happening in the natural habitat, it is not engaged in self-relevant thoughts involving controlled regulation. With 'intentional systemic mindfulness', the mind is free from introjected agendas and ego-involvements, and attention has a quality of relaxed openness and receptive curiosity, which is thought to enhance a sense of interconnectedness (Shapiro & Schwartz 1999).

I use these theories of attention in my analysis and interpretation of the strategies used by the research participants to revitalise themselves, which includes being in natural habitats.

### **Strengthening ecological identity**

Clayton (2003) reminds us that having an environmental (ecological) identity is not enough on its own to ensure environmental responsibility: it has to be salient, and it has to motivate us to gain the knowledge we need to understand our impact on the environment (p60). I identified five factors from my review of the literature that can either support or impede strength of ecological identity:

- Social context (affirms or denies value of identity)
- Personal encounters with the natural world (positive or negative experience)
- Mode of self reference (self-as-object or self-as-process)
- Self-nature conceptualisation
- Nature connectedness as a state or a trait

I will now discuss each of these factors in turn.

Earlier, I noted that the salience of an identity is influenced in part by the *social context*: whether social interactions affirm the identity or not (see 2.4.2). Pro-environmental behaviour is thought to be facilitated when social contexts are designed (deliberately or otherwise) to (a) nurture connectedness to nature, (b) affirm ecological identity and universalism values, and (c) encourage appreciation of the intrinsic value of the natural world (Clayton & Opatow 2003). The extent to which the participants' organisations provide such support is part of my analysis and interpretation.

*Personal encounters with the natural world* can also have an influence on strength and salience of ecological identity (Schultz 2000; Brown & Kasser 2005; WWF 2011; Weinstein et

al 2009). For nature encounters to strengthen ecological identity such that it motivates enduring environmentally responsible behaviour, some authors suggest it helps if these encounters involve embodied connections rooted in the specificity of a particular place and in a set of relationships with the community of beings that live there, rather than involving vague or abstract notions of nature (e.g. WWF 2011; McIntosh 2002; Curry 2011). As Abram (1997 p268) says, "For it is only at the scale of our direct, sensory interactions with the land around us that we can appropriately notice and respond to the immediate needs of the living world". Whiteman & Cooper's (2000) research on 'ecological embeddedness' proposes that a deep connection and experiential engagement with a specific place, that is centred on a relationship of respect, reciprocity and caretaking, increases commitment to sustainable land management practices. It has also been argued that the language we use to talk about natural phenomena affects how we perceive and interact with it. Macfarlane (2015) studied nature terms in thirty languages, dialects and sub-dialects around Britain and Ireland, and found that many of these terms are dying out. They describe aspects of nature such as weather and terrain in highly precise evocative and situated ways that come from close observation, such as the Gaelic phrase 'rionnach maoim' meaning the shadows that clouds cast on moorland on a windy day. By impoverishing our language with abstract terms like 'wood', Macfarlane argues, we change the way we interact with the land because we may not appreciate the detail and the particularity of the natural world that comes with close observation. I discuss language about nature further in the section on cognitive frames (see 2.6.2). Immersive nature experiences involving close observation may work to strengthen appreciation of nature's intrinsic value and stimulate feelings of empathy and kinship by linking us physiologically to other living beings (Lakoff 2010). Such experiences can also stimulate feelings of humility (Beck 1988 cited in Davis 1998), which for wilderness teacher Brown (Brown & Morgan 1983) is a prerequisite of feeling empathy for nature. Studies by Weinstein et al (2009) show that immersion in natural settings is likely to increase the

valuing of intrinsic goals by enhancing feelings of personal autonomy and feelings of relatedness to nature. Intrinsic goal orientation as previously reported is associated with pro-environmental behaviour (see 2.3.1). However, the literature states that not all immersive interactions with nature will be experienced as positive. Natural environments low in prospect (clear field of vision) and high in refuge (places to hide) such as dense wooded areas may be less restorative as they may evoke fear and stress rather than feelings of relaxation and enjoyment (Gatersleben & Andrews 2013). From the perspective of Kaplan & Kaplan's (1993) attention restoration theory, such environments require directed attention. Studies show that in situations of uncertainty, the anxiety that is felt is linked to egocentrism and this results in reduction in empathy (Todd et al 2015). Egocentrism is concern about the self that comes from the narrow sphere of the ego-self. In my research, I am interested in whether the participants' nature experiences are reported as positive or negative, and whether the experience of connectedness is embedded in a relationship to a specific place and its community and uses language indicating close observation. I also look out for indications of intrinsic goal orientation in participants' accounts.

The third way that nature encounters may not strengthen ecological identity is if the natural world is experienced through the ego-self *mode of self-reference* (Davis 1998). Naess' concept of the ecological Self is a mode of consciousness where the ego-self is integrated with and in balance with the ecological Self (WWF 2011). But such integration is not inevitable, and as just noted above, anxiety can trigger egocentrism. Another example is that with an egocentric state of mind, nature may not be appreciated for its inherent value but for its utility in providing an experience, what Ferrer (2002) refers to as 'spiritual experientialism' where experience in and of itself becomes the supreme value. A related concept is 'spiritual materialism', a term used by Chögyam Trungpa to describe as a form of self-deception in which spirituality becomes a subtle means to fulfil egocentric desires

(Daniels 2005). Referring back to the theory on pro-environmental values and goals (see 2.3.1), this suggests that depending on one's intention and mode of consciousness, nature experiences could be activating and strengthening extrinsic goals and self-enhancement values rather than intrinsic self-transcendent ones. These ideas have empirical support from a study by Frantz et al (2005) into factors that promote or inhibit nature connectedness, which found that self-as-object (ego-self) mode of self-reference is linked with lower nature connectedness. In my research I look out for indications of egocentric orientation in participants' accounts of their nature experiences.

Fourthly, there is the issue of *how a sense of connectedness with nature is conceptualised*. In a transpersonal experience, people often refer to feeling 'oneness' with nature. But some argue that this should not mean that personal identity merges with the whole, dissolving into some undifferentiated state of awareness (Davis 1998). Rather, it is the self-as-object perception of separateness that is dissolved. Philosopher and ethicist Warwick Fox (1990 p232) says, "The realization that we and all other entities are aspects of a single unfolding reality—that 'life is fundamentally one'—does not mean that all multiplicity and diversity is reduced to homogeneous mush". Rather, "things stand out or reveal themselves in their own unique mode of Being". What these authors are saying is that we do not have just two options of feeling either totally separate from nature or feeling totally unified.

Environmental philosopher Val Plumwood (1993 p160) agrees this is a false choice: "An adequate account of the ecological self", she says, "must be able to recognise both the otherness of nature and its continuity with the human self". To overcome separation by unifying everything is in Plumwood's opinion an overreaction that employs overly powerful tools to do the wrong job because the origins of opposition remain unaddressed and unanalysed. There is an arrogance, Plumwood maintains, in failing to respect boundaries and acknowledge difference when the self is imposed onto the other. Clayton (2003 p61) takes a

similar line from a psychological perspective, “We are all challenged to walk the line between denying connection and denying difference: learning to accept responsibility without ownership”. Arrogance and entitlement are dimensions of narcissism (Frantz et al 2005) so the arrogance of imposing oneself and claiming ownership of other entities could be understood as narcissistic. Narcissism (specifically the dimension of exploitativeness which is associated with entitlement) is linked with lower nature connectedness (Frantz et al 2005). These ideas about nonduality are relevant to my research because as Davis (1998) argues, it is a transpersonal experience of nonduality that is the source of real pro-environmental action. This is, he says, because such a state doesn’t place self-interest, no matter how expanded, at the centre. I discuss narcissism further in the section on cultural worldviews (see 2.7.3)

Finally, there is the factor of whether sense of connectedness with nature is a *passing mental state or a stable personality trait*. For Davis (1998) occasional transpersonal experiences of nonduality may not be enough for motivating enduring pro-environmental behaviour. What is needed, he concludes, is the “development of long-term practices to cultivate, reinforce and develop transpersonal ecological self experiences into stable traits” (p73). By developing sense of connectedness into a personality trait, it becomes embedded into self-identity. However, this requires knowledge of what the practices are and how to enact them. Plumwood (1998) suggests that attempts to ‘rekindle’ an ecological identity, which involves commitment to a particular place and care for its non-human and human inhabitants, is hindered by “the loss in modern urban life of the basis of that identity, and the loss of practices of care through which commitment to particular places is expressed and fostered” (p186). For Macfarlane (2015), the practice is close observation, which is hindered by the loss of precise language. In my study it is not really possible to ascertain whether nature connectedness is a passing state or a more enduring trait for my participants, but

there are some indications in the data about their use of particular practices relating to nature connectedness.

#### **2.4.4 Environmental/ecological identity in organisational contexts**

There is very little literature on sense of self as part of nature in organisational studies literature, especially in the specific way it is investigated in this thesis, namely as a factor affecting enactment of pro-environmental values by individuals in organisational contexts. Ciorcirlan (2016) states that “environmental identity has been given insufficient attention in the sustainable management literature” (p2) and cites a meta-analysis by Lo et al (2012) of determinants of engagement in environmental behaviours in organizations. This paper does not include identity (let alone environmental/ecological identity) in their pool of antecedents. However, sense of self as part of nature does relate to the construct of ‘ecological embeddedness’ referred to earlier (see 2.4.3) that Whiteman & Cooper (2000, 2011) argue is relevant to organisations. They propose that managers who have a strong personal identification with local ecosystems (also referred to as a ‘sense of place’) have greater commitment to sustainable management practices. Individuals who are ecologically embedded are more attuned to changes in ecological conditions and are better able to adjust their practices accordingly (Whiteman & Cooper 2011). Sense of place is an emerging research stream in organisational studies. It is regarded as integral to the study of organisational sustainability because of the way that sense of place shapes cognition and behaviour, with material consequences for the natural world (Guthey, Whiteman & Elmes 2014; Elmes et al 2012). This literature explores both the relationship of organisations and of organisational actors with place. My study is primarily concerned with the latter. It builds on this aspect of the literature by investigating the interactions of environmental/ecological identity with other psychosocial factors in the lived experience of sustainability managers, and exploring the implications of these dynamics for enactment of pro-environmental values

in their work to influence organisational practices. As Guthey et al (2014) state, “developing and understanding a manager’s sense of place... may help to localise and personalize sustainability values in action and lead to new understandings of management practice” (p261).

In addition to sense of place, there were two studies relating to identity more generally that were also useful: Wright, Nyberg & Grant’s (2012) work on the identity of corporate sustainability specialists engaging with climate change; and Meyerson & Scully’s (1995) work on ‘tempered radicals’. Tempered radicals are change agents who identify with and are committed both to their organisations and to a cause, community or ideology, for example feminism, that is fundamentally different from and potentially in conflict with the dominant culture of their organisation. From the perspective of goal theory discussed earlier (see 2.3.1), this could be interpreted as the oppositional tension between intrinsic goals/self-transcendence values, and extrinsic organisational values and goals of financial success and materialism. These studies highlight the internal conflicts and tensions in identity that people working to influence organisational change are likely to experience. Wright, Nyberg & Grant’s research also highlights the influence of organisational contexts on identity salience. Both studies propose that the way tensions in identity are negotiated by the individual has implications for their effectiveness as change agents. Their findings are relevant to my exploration of individuals seeking to influence their organisations with respect to environmental policy, strategy and/or practice, and in chapter 5 I compare and contrast my results with their findings.

#### **2.4.5 Conclusions from identity literature**

I have covered a lot of ground in this section and the territory is fairly complex. I provided some background information about constructs relating to identity and the self and

explained theory on ecological identity, including what this identity means, how it may be subjectively experienced, and factors that support or inhibit strengthening of this identity. I also discussed the related construct of sense of place and its implications for sustainable management practices, and introduced two studies relating to identity of change agents in organisations, to which I compare my findings in chapter 5.

Below is a summary of the conclusions I have made from the literature discussed that I use to inform my study. Ecological identity is a strong predictor of pro-environmental behaviour. There are various factors that influence the strength and salience of ecological identity, which consequently has implications for pro-environmental decision-making and behaviour:

- An ecological identity that is integrated with other aspects of the self will be experienced as more coherent and autonomous, making associated pro-environmental behaviours more likely to be performed effectively and to persist over time
- Transpersonal experiences that are ecologically embedded in a relationship of care with a particular natural place and its community of beings, that are not egocentric and recognise difference, and that draw on involuntary attention, can strengthen self-transcendence values, intrinsic goals and ecological identity, as well renew vitality.
- Repeated activation of ecological identity through long term practices help develop the experience of connectedness from a passing state into a more enduring trait
- Mindful awareness offers the possibility for choosing a pro-environmental response, rather than reacting unconsciously with the ego-self that is concerned with extrinsic goals or ego-involvement. Meditation practice may help embed this pro-environmental response into identity
- A sense of connectedness with nature that is the defining feature of ecological identity can also be understood in terms of connection with one's own inner nature. Disconnection from the external world of nature is a mirror of the disconnection within, for example between mind and body.

- The organisational context can be supportive or undermining of ecological identity. Sustainability professionals in corporations are likely to experience inner conflict and ambivalence
- How sustainability professionals negotiate tensions in identity influences their effectiveness as change agents

### **Relevance to my research**

Salience of identities including ecological identity, and factors affecting strength and salience are all aspects of lived experience that I enquire into in my study because of the way the literature suggests they influence pro-environmental cognition and behaviour. I compare and contrast my results to the two organisational studies described above, as well as to the literature on sense of place. In this thesis I use the term 'ecological identity' to mean not just sense of connectedness with the external world of nonhuman nature (Clayton 2003) but also the ecopsychology perspective of connecting with wild nature within (e.g. Totton 2011; Rust 2008; Hasbach 2012).

## **2.5 PSYCHOLOGICAL THREAT**

In this section I discuss the literature on psychological threat brought on by ecological crisis, and explain how the insights from this work inform my research. How a person deals with psychological threat is considered a key factor influencing the emergence of pro-environmental attitudes and behaviour (Crompton & Kasser 2009; Hamilton & Kasser 2009; American Psychological Association 2009).

I begin this section with an explanation of the theory of psychological threat that I use in analysing and interpreting my data, and continue with an explanation of responses of threat, namely defence mechanisms and coping strategies. I then focus on one particular strategy,

emotion regulation, because of the powerful influence that emotions, and how they are engaged with, have on the way people think and behave.

### **2.5.1 Perceptions of threat**

The environmental challenge facing humanity may be perceived as threatening our existence, our sense of safety and the integrity and stability of self-identity by threatening our life plans and subverting internalised expectations of the future, and it may threaten self-esteem by challenging the morality of our ecologically destructive or apathetic behaviours (Hamilton & Kasser 2009; Crompton & Kasser 2009; Weintrobe 2013; American Psychological Association 2009; Norgaard 2006a). Lertzman (2015) says,

“Depending upon the typology and context of the issue, environmental crises invoke ruptures in terms of who we are, what it means to be human beings in the context of nature, and what we know as socially constructed rational and scientific beings” (p7).

### **2.5.2 Responding to threat**

When encountering a perceived threat, the disequilibrium caused creates stress, which is a physiological and psychological response. Literature on stress says there is no emotional experience that has more a powerful influence on us (Stangor 2010), which makes psychological threat an important factor to consider in my research.

The human tendency is to attempt to alleviate stress and decrease anxiety and other associated negative emotions through defence mechanisms and coping strategies in order to return to baseline functioning as soon as possible (Cramer 1998). These responses are understood to be part of normal human development but as with any psychological function, a normal process may as Cramer (1998) says come to serve pathological ends if overused or if they are situationally inappropriate. Suppressing stress and associated emotions in the

long term is tiring and has negative health consequences. Defences and coping strategies that minimise anxiety and protect existing identities can be understood as a product of the ego-self (see 2.4.2) and they tend not to promote pro-environmental behaviour. In fact it seems they often lead to negative environmental behaviour and can interfere with the capacity to function normally, and for this reason are referred to as maladaptive (Crompton & Kasser 2009). Studying psychological threat responses can help build understanding of how stress brought on by ecological crisis affects people and influences their cognition and behaviour (Skinner et al 2003).

Threat responses come in a wide variety of forms, of which denial is perhaps the most commonly discussed in environmental circles. This is because generally speaking there is a human tendency to ignore or reject facts that threaten the integrity of identity or challenge fundamental beliefs. Presenting people with such facts can actually lead to a hardening of their position rather than a change of mind (Lakoff 2010). As Randall (2013) explains, if information doesn't fit your way of understanding the world, you'll reject it automatically and then come up with a rationalisation for why it's wrong. This is because as Bateson (1982) says, people are self-corrective against disturbance. "Disturbing information can be framed like a pearl so that it doesn't make a nuisance of itself" (p306). A study by Murtagh, Gatersleben & Uzzell (2012) finds that identity threat predicts resistance to change.

Psychological threat is a complex phenomenon because the way it interacts with other factors can lead to different kinds of outcomes. For example, existential threat tends to motivate people to enhance their sense of self through prioritising extrinsic goals of material wealth and success (Sheldon & Kasser 2008), which is ecologically maladaptive because it increases consumerism (Hamilton & Kasser 2009). But Fritzsche & Häfner (2012) found that existential threat loses its negative effect on pro-environmental behaviour if one's sense of

self as part of nature is strong. Defences and coping strategies are not just psychological processes they are psychosocial: they are culturally sanctioned and socially maintained by social norms and structures (Randall 2013; Crompton & Kasser 2009; see also Hochschild 1979; 1983; and Fineman 2000; 2003 on emotional management). Underlying drivers of behaviour such as threat responses are not isolated, Lertzman (2015) explains “we produce, share and co-construct our unconscious negotiations of highly charged issues through our conversations, stories, advertising, intimate dialogues and public media discourses” (p3).

There is relatively little research specifically on psychological threat responses to ecological crisis, including climate change. The literature I found that does address this topic is to a large extent informed by psychotherapeutic professional practice and theory (e.g. Randall 2005; 2009; Rust 2008; Hoggett 2011). There is a small amount of qualitative empirical research: examples are the fieldwork studies of Norgaard (2006a; 2006b) and Lertzman (2015). At the time of publication in 2006 Norgaard found no other research that had systematically examined individual responses to climate change within a specific social and political economic context (p350). Lertzman’s later fieldwork responds to this deficit, but she also observes that context-specific unconscious processes driving behaviours remains barely researched (2015 p24). My research contributes to addressing this gap in empirical research with my analysis of indications of psychological threat responses in participants’ accounts of their experience of interacting with their specific organisational contexts.

### **2.5.3 Defining defences and coping**

In psychology literature the terms ‘defence’ and ‘coping’ are often used interchangeably. This blurring of definitions is also present in psychoanalytic literature in relation to ecological crisis. In addition, it seems there is also little consensus about what is and is not a coping strategy (Cramer 1998; Skinner et al 2003), and there are differences in those that are identified as pertinent. The literature also deals with categorising defence and coping

responses in different ways. For example, responses have been broadly classified into avoidant (defensive) and approach types. Approach has three forms: active coping, which is direct action to deal with stressful situation; acceptance, which is cognitive and emotional acknowledgement of stressful realities; and cognitive reinterpretation (see Weinstein, Brown & Ryan 2009). Folkman & Lazarus (1985, cited in Carver, Scheier & Weintraub 1989) on the other hand made a distinction between problem-focused and emotion-focused coping. The literature also refers to proactive and reactive coping responses (e.g. American Psychological Association 2009). Pro-active coping, also known as anticipatory adaptation or psychological preparedness, is made in anticipation of an event whereas reactive coping is made after. The two types merge when responses are made to an event in order to diminish its impact and prevent its re-occurrence.

Cramer (1998) makes the case for a clear distinction between defences and coping, namely that defence mechanisms are unconscious and unintentional and coping strategies are conscious and intentional. However, as noted in the preceding section (see 2.4.2) there is movement of information between the unconscious and conscious parts of the mind so it is a dynamic process.

To make sense of the constructs for my study I harvested definitions from various sources<sup>8</sup> and compiled them together into clusters to create a working framework of defence mechanisms and coping strategies relating to the psychological threat of ecological crisis, which I show in Table 2.8 below together with their potential benefits. I then added examples of indicative phrases or behaviours and used this framework to guide my analysis

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<sup>8</sup> Including American Psychological Association 2009; Crompton & Kasser 2009; Hamilton & Kasser 2009; Winter 2004; Totton 2011; Uzzell 2000; 2004; CRED 2009; Foster 2015; Peters & Calvo 2014; Hoggett 2011; Randall 2005; 2009; 2013; Macy 1993; 2014; Lertzman 2015; Weintrobe 2013; Rust 2008; Kidner 2007; Reser & Swim 2011; Stoll-Kleeman et al 2012; Gifford 2011; Homburg & Stolberg 2006

and interpretation. There is a combination of thoughts, emotions and behaviours in the defences and coping strategies listed in this framework, showing the intrapsychic and behavioural dimensions of coping responses (American Psychological Association 2009). Given the prominence of the term 'denial' in the media with regard to climate change, I provide here a definition. Denial is when facts are not allowed to be accepted in the conscious mind. Thoughts or feelings that would be upsetting if accurately perceived are negated, ignored or misrepresented (Cramer 1998). However, Randall (2013) says whilst some people may deny facts of climate change altogether, it is more common for people to both deny and acknowledge it at the same time but with different parts of the mind in a process known as disavowal. The outcome is similar to outright denial in that it protects people from feeling anxiety and is also ecologically maladaptive: because people have not allowed themselves to feel what the reality of climate change means, this protects them from having to take significant action. In Norgaard's (2006a) study, residents of a rural community in Norway who were well-informed and concerned about climate change still chose to ignore it in what Norgaard calls a 'socially organised process of denial' of which the individual is not always consciously aware (p350). There is also a form of denial known as denialism, which is conscious and intentional such as ideological campaigns of disinformation (Weintrobe 2013; Dunlap & McCright 2011). Stoll-Kleeman et al (2001) maintain that denial acts powerfully to maintain the gap between attitude and behaviour (p111).

Fig 2.8 Types of defences/coping and their potential benefits

Type of defence/coping	Response	Potential benefit
Denial / disavowal of facts	Rejecting	Protection from feeling, and having to take significant action
	Deflecting	
	Ignoring	
	Selective attention / restricting exposure to distressing information	
Distortion of facts	Reduce size of threat	Re-interpretation of threat reduces its power and importance, and tempers emotional impact
	Trivialise	
	Put threat into the future	
Shifting or denial of responsibility	Projection	Protects sense of self, reduces challenge to self-identity as a good person Protection from feeling Protection from taking responsibility and having to take significant action
	Blame-shifting	
	Diffusion of responsibility/bystander effect	
	Derogation of out-group	
	Denial of guilt	
	Splitting	
	Idealisation of leaders	
Regression/infantilisation		
Self-enhancement	Extrinsic goal orientation	Enhance self-esteem
	Self-protection	
	Materialistic behaviour	
	Survivalism	
	Narcissism/arrogance, superiority	
	Identification with idealised figures	
Avoiding thinking or feeling emotion	Suppressing thoughts	Psychic relief from anxiety
	Suppressing emotions	
	Emotional distancing	
	Intellectualisation	
	Compartmentalising	
	Apathy	
	Escapism	
	Numbing	
	Disembodiment	
Pleasure-seeking		
Diversionary or displacement activity	Displaced commitment	Mollify guilt Form of absolution - relieves need to engage in more radical change Defends against helplessness and hopelessness Reasserts sense of being in control
	Minor behaviour change	
	Single action bias	
	Domesticating wild nature	
Non-action	Resignation	Protects from having to take significant action
	Passivity	
	'Lazy' catastrophism	
Self-deception	Wishful thinking, technofix	Protection from feeling, and having to act / make radical change
	Unrealistic optimism	
	Illusion	
	Delusion	
Active catastrophism	Self-destructive behaviour	Protection from taking responsibility and having to act positively
	Wishing for societal collapse	

The strategies in Table 2.8 are generally regarded as ecologically maladaptive (e.g. Crompton & Kasser 2009). Adaptive strategies on the other hand are those that promote psychological

adjustment to the reality of the situation and stimulate appropriate actions (Crompton & Kasser 2009; Macy & Brown 2014). The literature refers to the following strategies as adaptive:

- Seeking information about environmental situation (not avoiding through selective attention)
- Expressing, engaging with and regulating emotions (not suppressing or avoiding)
- Seeking social support
- Collaborative problem-solving and taking action (not denying responsibility)
- Considered reflection on death (not being fearful of thinking about death)
- Compassion (orienting to self-transcendence values rather than self-enhancement)
- Humour (not trivialisation but putting issue into perspective and lifting the spirits)

I now discuss one of these adaptive strategies, engaging with emotion, in more depth because of the central role of emotion in the stress response and because of the importance of emotions as cues in healthy regulation of behaviour, as previously discussed (see 2.3.3). As a primary ongoing feature of consciousness, emotions can “significantly influence cognitive experience and behaviour” (Brown & Cordon 2009 p60). For this reason, in my research I am interested in the emotions that the participants feel about ecological crisis, and how they express, engage with and regulate these emotions.

#### **2.5.4 Regulating emotions**

##### **Why the way we engage with emotions matters**

Emotion comes from the same semantic root ‘to move’ as motivation. Emotion is a mental and physiological feeling state that directs our attention and guides our behaviour: emotion is inner-directed (Stangor 2010).

Macy has written extensively on emotion (notably despair) and ecological crisis since the 1970s. Macy argues that is precisely *because* we are interdependent and connected with

nature that we feel pain about its destruction. It is in honouring this pain and accepting accompanying emotions that we are better able to act adaptively in bringing the world towards ecological balance (Macy & Brown 2014). This view about the benefits of engaging with difficult emotions is consistent with a psychoanalytic perspective. Lertzman (2015) for example explains that feelings of ambivalence, loss and anxiety that may accompany awareness of environmental crisis can impede our capacities for concern and repair. These feelings are not to be avoided but “integrated for more authentic modes of engagement with a dynamic, uncertain world. This includes our collective capacities for generating the solutions needed” (p4). Also from a psychoanalytic perspective, Randall (2009) calls for a more sophisticated understanding of the processes of loss and mourning, and for these to be restored to public narratives from which they are currently absent. This, she claims, “would help to release energy for realistic and lasting programmes of change” (p118).

Emotions that aren't accepted steer us unconsciously. Accepting and engaging with difficult emotions and feelings such as pessimism, pain, anxiety and loss is considered adaptive because regulating negative emotion through suppression or avoidance has been shown to take emotional and physical effort and impair our ability to think. This is because the effort of suppression diverts cognitive resources away from other tasks (Rogelberg 2006).

Dissonance between felt and expressed emotions is likely to induce stress, and has been shown to have detrimental effects on physiological and cognitive functioning (Rogelberg 2006). Suppression of emotion is also associated with poorer mental health (Brown & Cordon 2009). Ignoring stress and suppressing emotions is not healthy in the long term but it might be appropriate in the short term, for example when a situation is not within a person's control to change in that moment (Stangor 2010).

It is worth noting that there could be cultural differences in the way emotion is regulated.

For example, Nisbett (2003) says there is evidence that the simultaneous experience of

conflicting emotions is more common for Easterners than Westerners. East Asians seem to have less trouble accepting apparent contradictions in their own emotions. In one study, Chinese and Korean participants reported strong positive emotions as being fully compatible with expressing strong negative emotions.

### **Mindfulness as a strategy for engaging with emotions**

Self-Determination Theory (SDT) views emotions as sources of information that can guide people toward effective behaviour and growth (Deci et al 2015; Ryan et al 2006 cited in Deci et al 2015). But this requires being aware of emotions in the first place and being able to track ongoing emotional states, and then experiencing and expressing them in an adaptive way, which includes knowing when and how to intervene to alter those states as needed (Barratt & Gross 2001, cited in Brown & Cordon 2009). There is some empirical evidence that mindfulness supports this process (see Brown & Cordon 2009). Through practising mindfulness, practitioners can develop their capacity to be aware of difficult emotions as they arise, and to engage with and ultimately work through them in an adaptive way, rather than resist or suppress them (Kabat-Zinn 1990; Williams & Penman 2011). There are studies that find associations between mindfulness and less rumination and suppression, which are considered maladaptive ways of regulating emotion (Brown & Cordon 2009).

With regards to responding to ecological crisis, Macy (1993) says, "it is essential that we develop our inner resources. We have to learn to look at things as they are, painful and overwhelming as that may be, for no healing can begin until we are fully present to our world, until we learn to sustain the gaze" (p4). But this is not easy to do. Macy thinks that "as a society we are caught between a sense of impending apocalypse and an inability to acknowledge it" (p15). More than this, there is social pressure to suppress difficult emotions, such as despair. Acknowledgement is, Macy says, a social taboo:

Those who break it are considered 'crazy', or at least 'depressed and depressing.' To feel despair in such a cultural setting brings a sense of isolation. The psychic dissonance can be so acute as to seem to border on madness. The distance between our inklings of apocalypse and the tenor of business-as-usual is so great that, though we may respect our own cognitive reading of the signs, we tend to imagine that it is we, not society, who are insane. (p19)

Macy's argument is that it is difficult to respect the validity of our despair, coming as it does from interconnectedness, if we see ourselves as essentially separate from nature or if we are coming from an egocentric sense of self. Suppression of emotions such as despair is also thought to occur out of fear that we might break apart or get stuck. Despair, she says, is "tenaciously resisted because it represents a loss of control, an admission of powerlessness" (p18). In Self-Determination Theory terms, despair may be perceived as posing a threat to autonomy and competency satisfaction. Perceived threat to needs satisfaction triggers defences and coping strategies (Skinner et al 2003), which may be ecologically maladaptive, thus creating a negative self-reinforcing feedback loop.

### **Emotions and embodied cognition**

In Interpretative Phenomenological Analysis (IPA), which is the theoretical framework underpinning my study, emotion is regarded as central to understanding human experience and intersubjective acts (Smith, Flowers & Larkin 2009).

Emotions are closely associated with physical sensations of arousal and cognitive appraisal (interpretation) of the cause of arousal, in response to stimuli. There are a number of theories about the way that emotions arise, for example the order in which arousal, emotion

and appraisal occur, but the main point is that the feeling of emotion involves both mind and body (Fineman 2003; Brown & Cordon 2009).

In cognitive science and linguistics and in phenomenology, the physical body is regarded as integral to perception and understanding experience: it is not just as a biological object but a lived experiential structure (Varela, Thompson & Rosch 1991). Johnson (1987) says:

As animals we have bodies connected to the natural world, such that our consciousness and rationality are tied to our bodily orientations and interactions in and with our environment. Our embodiment is essential to who we are, what meaning is, and to our ability to draw rational inferences and to be creative. (p.xxxviii).

Embodiment also seems to be resurfacing in psychology, and is a prevailing theme in IPA research (Smith, Flowers & Larkin 2009). Yet despite this recognition of the role of the physical body in cognition, embodied mindful awareness is not a skill that is actively cultivated in mainstream western culture, which many (e.g. Plumwood 1993) consider to be in the grip of Cartesian dualism that separates mind from body, and reason from emotion, as mentioned earlier with regards to ecological identity (see 2.4.3). Kidner (2007) describes disembodiment, by which he means the distancing of our selves from our embodied being in the world, as a defence against anxiety, pessimism and hopelessness of ecological crisis. It is a “neo-Cartesian solution” (p157). Like all maladaptive defence mechanisms, disembodiment may make us feel more comfortable in the short term but it “sidesteps the underlying ecological problem by effectively switching off those faculties that might alert us, in effect restricting us to an exclusively *cognitive* awareness. A focus on thinking that excludes feeling, therefore, amounts to a bracketing off of reality” (p138).

### **2.5.5 Conclusions from psychological threat literature**

In this section I have provided an explanation of the theory of psychological threat and the responses of defence mechanisms and coping strategies, which in terms of influencing behavioural responses to ecological crisis can be adaptive or maladaptive. I have also discussed emotion regulation as an adaptive coping strategy, because of the powerful influence emotions, and the way we engage with them, have on how people think and act.

There is a slowly growing (though still relatively small) body of psychology literature on the theme of psychological threat defences and coping strategies in relation to ecological crisis. The literature is weighted towards responses to climate change, and there are not many qualitative studies that are situated in a specific context. But like psychology generally as noted in the Introduction chapter (see 1.2.1), the role of coping strategies is yet to be properly engaged with by the broader environmental community, prompting some authors such as Crompton & Kasser (2009 p5) to state,

“Until the environmental movement begins to tackle these aspects of identity and the social norms and structures that enable them, we fear that responses to the environmental crisis will remain inadequate”.

Psychological threat is a complex phenomenon that triggers a wide range of conscious and unconscious processes that manifest on both individual and collective levels. A key point arising from the literature is the role of embodied mindful awareness and engagement with emotion in supporting adaptive responses to ecological crisis.

#### **Relevance to my research**

The gaps in research highlighted above are addressed in my study, as I analyse participants’

accounts for indications of psychological threat defences and coping strategies. In this way my research contributes to understanding how stress brought on by ecological crisis affects people and influences their behaviour.

As previously explained (see 2.3.4, 2.4.5) in my study I enquire into the embodied awareness of the research participants for evidence of autonomous self-regulation of behaviour and integration of pro-environmental responses into identity. I also draw on my own embodied experience in my encounters with the participants as part of a reflexive methodology. From the perspective of psychological threat, I also analyse embodied awareness in terms of how difficult emotions about ecological crisis are engaged with and regulated, because of the implications this has for cognitive and physiological functioning and for adaptive pro-environmental behavioural responses.

## **2.6 COGNITIVE FRAMES**

In this section I discuss linguistics literature on cognitive frames in relation to what language reveals about the way people conceptualise the natural world and explain how the insights from this work inform my research.

I begin with an introduction to provide some definitions, including an explanation of the relationship between cognitive frames and cultural worldviews, and metaphors. Following this I outline theory on frames about nature specifically and what the implications may be for pro-environmental attitudes and behaviour. I end by looking at some work on frames and ethical decision-making in organisations, which although not directly about responses to ecological crisis is useful to consider because organisations' environmental impact is an ethical issue, and because this literature identifies mindfulness as a way to defend against the priming effects of organisational discourse (see 2.3.3 on mindfulness and social primes).

### 2.6.1 Introducing cognitive frames

Cognitive science and cognitive linguistics holds that the mind's conceptual systems structure perception, understanding and behaviour - including how the person relates to and interacts with the world (Lakoff & Johnson 1980; Lakoff 2012). This happens in mostly unconscious processes. Forming part of a conceptual system is a cognitive frame, which is a bundle of strongly linked concepts and associated emotions and values, learnt through experience and stored in memory (Holmes et al 2011). These cognitive structures serve as 'frames of reference' for interpreting new information and experiences. From this perspective, because we act according to how we perceive, how we think about nature matters for generating appropriate and proportional responses to ecological crisis (Lakoff 2010). However, people's conceptual systems are not necessarily internally consistent (Lakoff & Johnson 1980) and it seems we all have a variety of frames available to us that we can move between. Frames are activated in the mind by use of particular words. As this process is largely below the level of conscious awareness, cognitive scientists such as Lakoff suggest that attention should be given to carefully considering which frame is likely to be activated when particular language is used and whether this frame is congruent with pro-environmental values (Lakoff 2010). As critical discourse analysis recognises, metaphor use has political implications. Larson (2011) says "those who control language have the potential to overtly dominate society by naturalising particular ideas" (p95). For a concise history of frames theory see Darnton & Kirk (2011).

By analysing the language that my research participants use about nature I can infer how they perceive and conceptualise the natural world and the relationship between themselves (or humans generally) and nature, and whether these conceptualisations are congruent with pro-environmental behaviour.

There are a number of studies that analyse how the natural world, environmental change, climate change, sustainability and ecological crisis are being talked about and what the implications are for environmental attitudes and behaviour, and some of this work is being used to inform environmental campaigning (e.g. see [valuesandframes.org](http://valuesandframes.org)). Some of this literature sits under the banner of 'ecolinguistics'. Ecolinguistics critiques discourses for the way in which they encourage environmentally beneficial or destructive behaviour (e.g. Stibbe 2015). In some literature (e.g. Larson 2011) there is blurring between cognitive and ecolinguistics approaches, and my research follows this pattern. In psychology and social science research on human responses to ecological crisis, I found language tends to be analysed for themes in discourse but not so much in terms of its cognitive function. Grant et al (2004) observe that cognitive linguistics approaches are relatively undeveloped in organisational discourse studies (see 3.3.2). Cognitive and ecolinguistics research tends not to be focussed on individuals, and I found no literature specifically examining self-nature relationships and the implications for influencing pro-environmental practices in organisations (e.g. see Stibbe 2015; Larson 2011). These particular gaps in research notwithstanding, interest seems to be growing in the environmental community in how environmental issues and science are communicated.

I shall discuss the linguistics literature shortly but first I will clarify the relationship between cognitive frames and worldviews, and cognitive frames and metaphors.

### **Cognitive frames and cultural worldviews**

In the subsection on priming of values (see 2.3.1) I mentioned the finding that people can be unwittingly primed to think and respond in particular ways through exposure to certain kinds of language and metaphors (e.g. Thibodeau & Boroditsky 2011). Exposure to language activates cognitive frames, and activation of a frame strengthens its physical neural basis,

making it easier to activate. The dominant discourse in a society, for example in organisations, the media and in educational, economic and political institutions has a priming effect, of which people tend to be unaware. These discourses express and reinforce particular values, beliefs, assumptions and presuppositions, which together constitute a cultural worldview. Griffin (1995 p6) notes that, “the assumptions that belong to a culture are often invisible in their fullest dimensions and consequences”. She advises that to change a culture we must first make visible patterns of abuse. In the next section I discuss cultural worldviews thought to be a cause of current ecological crisis, building upon the theory in this section on cognitive frames about nature.

### **Cognitive frames and metaphors**

Our conceptual systems are regarded as fundamentally metaphorical in nature. The essence of metaphor, say Lakoff & Johnson (1980) is understanding and experiencing one kind of thing in terms of another. More formally, it involves mapping a ‘source domain’ of human experience that is familiar and easily or intuitively understood, onto the ‘target domain’ which is a less well understood or more vague, uncertain or complex domain of experience (Crompton 2010). Knowledge about the source domain is used in reasoning about the target domain, resulting in a possible metaphorical entailment in meaning, which may invite attitudes and behaviours with environmentally beneficial or destructive consequences. Metaphors are a framing device, and in cognitive linguistics they are not primarily a linguistic phenomenon but a mental phenomenon - a cognitive operation that activates a frame. Here are three examples involving a mapping between human and nature in different ways to illustrate how it works:

- a) With the term *‘foot of the mountain’*, the physical structure of the human body is used as a source domain for describing a natural feature. The conceptual metaphor

(also called root analogy) is NATURE IS PERSON<sup>9</sup> or LANDSCAPE IS HUMAN BODY. Our feet make contact with the earth, so the entailment is that the mountain starts at the point where the land can be seen to rise out of the earth. I include this example to show how not everything from the source domain is necessarily carried over to the target domain: whilst mountains may have feet we don't tend to think that they can walk.

- b) The phrase '*the root of the problem*' projects the source domain of plant onto the target domain of situation. The conceptual metaphor is SITUATION/IDEA IS PLANT, which is mapping nature and human affairs in the opposite direction to the example above. There is also a second mapping to do with height: CAUSE IS LOW. Entailments include problems can grow, and problems originate below the surface. The word 'root' may trigger activation of an organic cognitive frame.
- c) With the term '*I am running out of steam*', the conceptual metaphor is HUMAN IS MACHINE. Machines are human-made artefacts not a naturally evolved entity. The mapping reduces the complexity and mystery of the human mind to a known mechanistic structure. An entailment is: my purpose is to be productive. The word 'steam' may trigger activation of a mechanistic cognitive frame.

We can't avoid communicating and sharing experience through use of metaphors because almost every word we use is a metaphor, as cognitive linguistics understands it. But metaphors are incomplete representations: they privilege one way of seeing and obscure others, so inevitably there is always some other aspect of the experience that is being downplayed or hidden. When a frame is activated, alternative frames are inhibited. Which frame is reinforced and which is inhibited when certain metaphors are used has significant implications for how we think about and act in response to ecological crisis. This is why I analyse the metaphors that participants use.

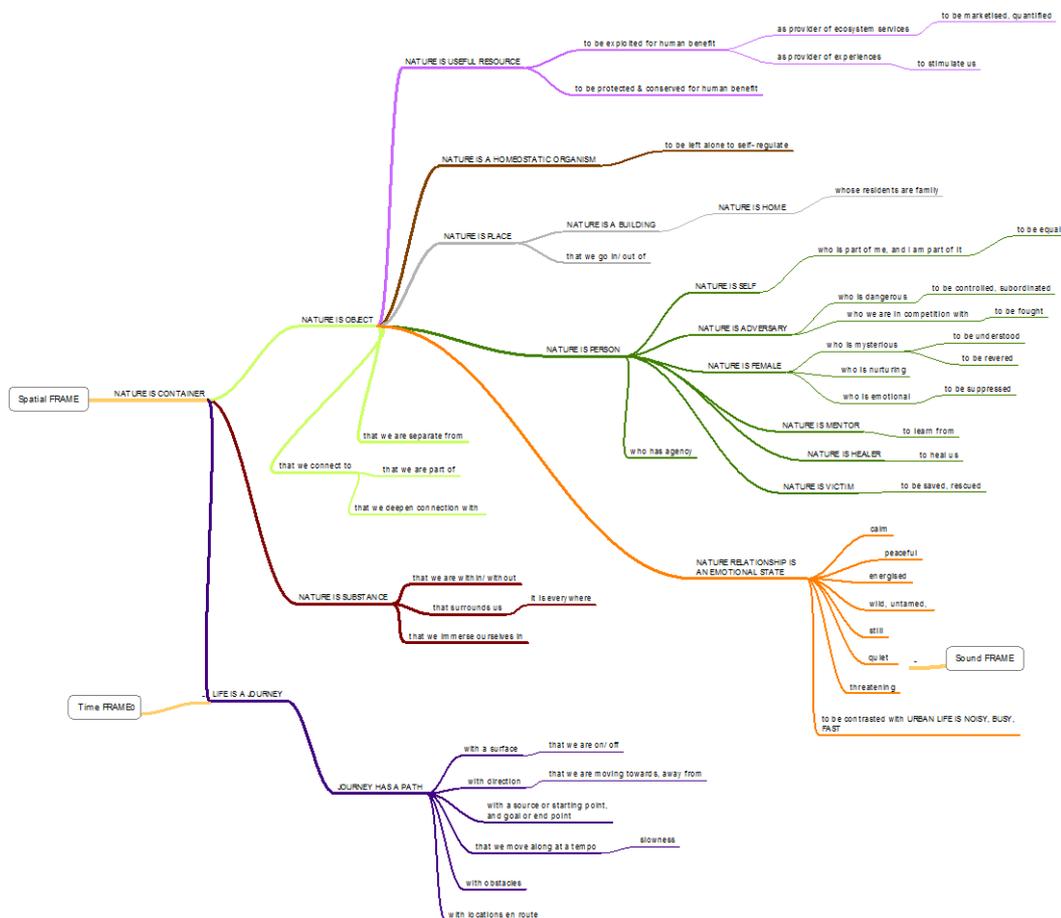
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<sup>9</sup> Conceptual metaphors tend to be written in capitals, in a smaller font to fit the font size of the surrounding text: TARGET DOMAIN IS SOURCE DOMAIN.

## 2.6.2 Frames about nature

Linguistics literature identifies numerous frames that are used in sustainability and environmental discourse to frame the natural world in certain ways and which have implications for how people think and act towards it (e.g. see Lakoff 2010; Goatly 2007; Larson 2011; Blackmore & Holmes 2013). There is not scope in this thesis to discuss the theory relating to all these frames and their implications for environmental behaviour. However, I created a working mind map of frames to aid my understanding of them, which I show below.

Fig 2.9 Mind map of cognitive frames about nature



In this subsection I focus on discussing four common metaphors referred to in the literature because these are metaphors likely to occur in the participants' accounts. These metaphors are:

- Nature is container / object
- Nature is economic resource
- Nature is machine
- Nature is evil

### **Nature is container / object**

The phrase *being in nature* uses the conceptual metaphor NATURE IS CONTAINER and NATURE IS OBJECT. In order to discuss this metaphor I first need to explain the construct of an image schema, of which a container is an example.

One of the central ideas in cognitive linguistics is that language is embodied, situated and intersubjective (Johnson & Lakoff 2002). Conceptual metaphors are grounded in the everyday embodied experience of interacting with the world. However, we may not be consciously aware of the embodied nature of these interactions depending on the quality of our embodied awareness and degree of integration of various parts of our psyches as discussed previously in the sections on values etc. (see 2.3.3 on mindfulness), identity (see 2.4.3 on nature connection and wellbeing) and psychological threat (see 2.5.4 on emotions and embodied cognition). One of the most basic source domains that we can use are called image schema. These are gestalt structures – abstract structures that organise mental representations based on embodied pre-reflective experiences such as recurring patterns in body movement, object manipulation and perceptual interactions (Johnson 1987). According to Johnson (1987), one of the most pervasive features of human experience is the experience of physical containment, spatial boundedness and differentiation: in-out, verticality, balance, force, motion, intensity, scale, orientation and so on. I will focus on containment because of its implications for how the natural world is conceptualised. Discourse often positions a speaker inside or outside a container. Johnson explains that the

schematic structure of in-out orientation that comes from the experience of containment

implies:

- Protection from or resistance to external forces
- Forces within the container are limited or restricted
- The contained object gets relatively fixed in its location, which can be accessible or inaccessible

The Container schema is often used as a conceptual domain source for safety and security from what is inside or outside the container. The entailment of NATURE IS CONTAINER may therefore be that nature is a threat that needs to be contained, or alternatively that humans are the threat from which nature needs protecting. The entailment of nature as accessible or inaccessible has consequences for development of ecological identity through encounters with the natural world. Johnson explains that the Container schema also conveys separation through exclusion, division and boundaries that differentiate the container object from other objects. Conceptualising nature as an object that is separate from us is also conveyed with the term '*environment*' because it is a view of nature as a separate object that surrounds, as opposed to contains, us (Lakoff 2010). This potential for separation is relevant to my study in terms of sense of connectedness with nature. Lakoff (2010) posits that perception of separation from nature is deep in North Americans' conceptual systems, and it is likely to be the same for British people. My research participants live and work in the UK and Canada. As stated in my conclusion to the section on identity (see 2.4.5) ecological identity is an aspect of experience I enquire into in my study because of its positive correlation with pro-environmental behaviour.

A subject-object frame for conceptualising human relationship with nature as Larson (2011) points out, allows us to view nature as an object that we do something to. Environmental philosopher Val Plumwood (1993) discusses subject-object dualism as a particular mode of

attention to the world, where observation is a form of domination. This dualism she argues denies dependency and kinship between observer and observed. Recalling the psychology literature on values and ecological identity, such a dualism of hyperseparation of humans from nature is likely to suppress universalism values (see 2.3.1) and frustrate emergence of ecological identity because nature is perceived as out-group (see 2.4.1). Human-nature dualism “appears to suggest that we can be objective and independent observers - rather than part of the system and inevitably bound up in it” (Pretty et al 2007 p19). Plumwood regards the subject-object / human-nature dualism as a legacy of Cartesian denial of mind-like features to the physical world (p123). I discuss human-nature dualism further in the next section on cultural worldviews (see 2.7.2).

But a perception of nature as separate, whilst being deep in the conceptual system of English speakers at least, is not innate and there are alternative ways of conceptualising the relationship. Some linguists and anthropologists for example have compared English language metaphors with those found in other cultures especially indigenous languages. Larson (2011) for example in his study of metaphors for environmental sustainability draws on the work by anthropologists such as Bird-David. The peoples she studied such as the Cree, Bushmen and !Kung relate to nature with a subject-subject frame, which is a relational frame understood to arise in part from direct experiencing of the land. This relational approach is the kind of ecological identity discussed earlier (see 2.4.3), which emerges through situated experience and sense of kinship to the inhabitants of the place. Historically in African and Native American languages, there is no equivalent term for nature as an entity distinct from humans (Larson 2011; Kesby 2003). But whilst subject-object frames are not inevitable for Western industrialised peoples, in Lakoff's (2010) opinion the possibilities for changing frames through language are limited. For frames of human-nature interconnection to take hold, they need to be institutionalised and the metaphors need to be powerfully resonant.

Lakoff (2010) says:

“Introducing new language is not always possible. The new language must make sense in terms of the existing system of frames. It must work emotionally. And it must be introduced in a communication system that allows for sufficient spread over the population, sufficient repetition, and sufficient trust in the messengers.” (p. 72)

But Lakoff also thinks that pro-environmental frames can be strengthened through positive experiences of the natural world, a view that echoes the psychology literature discussed previously (see 2.4.3 on strengthening ecological identity).

### **Nature is economic resource**

The natural world of nonhuman beings and their habitats is often framed in instrumental and economic terms (Lakoff 2010; Larson 2011; Goatly 2007; Stibbe 2015), for example *ecosystem services, natural capital, natural resources, stock, asset and pollinators*. With regards to human beings, examples of instrumental and economic metaphor are *consumer* and *human resources*, which describes humans in terms of their economic function in society. Alternative meanings of what it means to be human in society, such as a citizen, are hidden.

Instrumental and economic framing of nature is part of a larger trend. According to Goatly (2007) other common goods such as knowledge that were in the public domain are being increasingly brought within the sphere of economics, and this means private ownership.

Property rights are a key ideological belief of capitalism, a belief considered to have developed in the Middle Ages in northern Europe as an integral component of human rights (Palazzo & Hoffrage 2014). The notion of private property, Goatly states, relies on the in-out orientation of the Container schema, which makes possible the idea of exclusivity: what is

mine cannot be ours, and what is yours cannot be mine. Another aspect of experience that has been commodified is time. Lakoff & Johnson (1980) argue that the Westernization (i.e. industrialisation and consumer capitalism) of cultures throughout the world “is partly a matter of introducing the TIME IS MONEY metaphor into those cultures” (p145).

As the above two quotes indicate, an Economic frame<sup>10</sup> is prevalent in the discourse of industrial growth societies (see also Lakoff 2010; Dryzek 1997; Dunlap 2008). Indeed Michaels (2011) asserts that the Economic frame is the dominant monoculture of our time against which everything else is judged. In foregrounding the instrumental value of the natural world as a resource to be exploited for human ends, the Economic frame privileges financial interests and reinforces materialistic goals (Crompton & Kasser 2009; Blackmore & Holmes 2013). This way of conceptualising nature, it is argued, obscures a view of nature as having intrinsic value and can reinforce a belief that humans are separate from nature, denying our dependence on the Earth for survival (Lakoff 2010; Stibbe 2015; Larson 2011).

An entailment of the Economic frame for nonhuman nature is that habitats and wildlife can best be protected for on-going human use through monetising nature - by putting an economic value on the services that nature provides, and by commodifying it. Even carbon has been turned into a commodity: for example *carbon offsetting* and *carbon markets* (Newell & Paterson 2010). But markets are not morally neutral, political philosopher Sandel (2012) argues, marketising a communal good corrupts and degrades it.

Historically, economic growth is closely linked with fossil fuel use (Böhm 2015), and so dealing with climate change is often discussed by those who wish to have their cake and eat it, in terms of ‘decarbonising’ the global economy (Wright & Nyberg 2015). This means

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<sup>10</sup> Capitalisation denotes the term is a commonly used name for the cognitive frame

decoupling economic growth from greenhouse gas emissions so that consumption of nature's resources can continue to increase unabated by planetary disruptions and catastrophes. But the dominant discourse of the current UK government is one that pits climate change action in direct opposition to economic growth. For example George Osborne in his 2011 Conservative party conference speech said "we are not going to save the planet by putting our country out of business".

With regards political environmental discourse in the USA, Lakoff (2010) identifies two main contradictory moral systems that he labels 'conservative' and 'progressive'. These moral systems are not just cognitive frames they are cultural worldviews and I therefore return to discuss the core beliefs contained within them in the next section.

The *conservative moral system* includes the Economic frame just discussed, and in Lakoff's view works against environmentalism and dealing with climate change. Goatly (2007) identifies five main conceptual metaphors of this moral system: NATURE IS RESOURCE, NATURE IS PROPERTY, NATURE IS ADVERSARY (to be conquered and made to serve us), NATURE IS A MECHANICAL SYSTEM (to be figured out and put to use) and NATURE IS GOD'S DOMINION (given to Man to steward/have sovereignty over). This latter is at odds with current thinking in some denominations of Christianity, as I observe in the next section on cultural worldview (see 2.7.2, 2.7.3) with reference to Pope Francis' recent encyclical.

The *progressive moral system* involves values of empathy, and personal, social and environmental responsibility to make the world a better place (starting with yourself), so it promotes self-transcendence values and intrinsic goals (see 2.3.1). Goatly (2007) links it to conceptual metaphors such as NATURE IS A WHOLE (of which we are an inseparable part), NATURE IS DIVINE BEING (to be revered and respected), NATURE IS A LIVING ORGANISM (whose

needs must be met if it is to survive), NATURE IS MOTHER, and NATURE IS VICTIM (who has been harmed and needs to be healed).

According to Lakoff (2010), a large proportion of the public is significantly bi-conceptual with versions of both 'conservative' and 'progressive' value-systems in their minds, which they may apply to different issues or in different contexts, or indeed experience as being in conflict – being literally in two minds. He argues that what needs to be done is to inhibit the conservative frames and activate the progressive frames on the environment, through positive nature experiences and by using resonant pro-environmental language.

### **Nature is machine**

An example of the NATURE IS MACHINE conceptual metaphor is the term *ecosystem engineer* to refer to species such as beavers or worms that significantly alter habitats. The entailment of a mechanistic frame is that nature can be understood and controlled like a machine, and the mystery and complexity of natural phenomenon is obscured. Machines do not have feelings, so another entailment is that nature does not have feelings, which makes living beings easier to exploit. Machines also perform a function for humans, and the corresponding entailment is therefore that nature exists for us to use (Stibbe 2015).

Conceptualising the natural world as a machine involves what Weber (1991 cited in Curry 2011) called 'disenchantment', where the mystery and magic of nature is denied. Such disenchantment is regarded as a pre-requisite to exploiting, commodifying and selling it (Curry 2011). I discuss the disenchantment of nature through science and mechanistic metaphors in more depth in the next section on cultural worldviews (see 2.7.3).

Mechanistic frames are also used to describe aspects of human experience. *Operating, rusty, running out of steam* are examples of the conceptual metaphor MIND/BODY IS MACHINE (Lakoff & Johnson 1980), as discussed earlier (see 2.6.1).

### **Nature is evil**

Many wild animals have come to be seen negatively, and not just as nuisances e.g. foxes or rats as *vermin*, but as embodying human vices. To call a person a *rat*, *cow*, *snake* or *bitch* tends not to be a compliment. Midgley (2003) says the general equation of wild animals with evil is strong. An entailment of this frame is that it clears us from any guilt for killing or persecuting them, but in Midgley's view it also fulfils another psychological purpose. By killing the personification, the person feels like they have killed the vice: "they are symbolically destroying their own wildness" (p166). From this perspective such projection is a psychological defence against threats to civilised life.

### **2.6.3 Frames and ethical decision-making in organisations**

#### **Activity is war**

Literature on unethical decision-making in organisations proposes that a language of war in an organisation can lead to ethical blindness, which is defined as the temporary loss or inability to see the ethical dimensions at stake in a decision and/or deviation from one's own autonomously chosen values (Palazzo, Krings & Hoffrage 2012). One of the ethical dimensions for organisations is the environmental impact of their business activity.

Palazzo, Krings & Hoffrage (2012) suggest that internal frames and external pressures can be mutually reinforcing. If the discourse of an organisation is a language of war then an atmosphere of war is created with stress, pressure, fear and aggression. Different rules apply in wartime than in peacetime, so the entailment is that regular social norms and regulations do not apply to the organisation. People may be influenced by this context to stray from ethical norms and values in a creeping process of adaptation to the organisation's frames and values. Lots of small compromises that in themselves are barely noticeable, accumulate over time into large shifts away from the baseline, and the end result is Enron and Lehman

Brothers scandals (Hoffrage 2011). This is not about a few bad apples, the authors argue, this is about how good people do bad things. If the metaphor ACTIVITY IS WAR is dominant in an organisation, it should be read as a signal that something is wrong.

As pointed out earlier with metaphors, frames contain blind spots. Because these blind spots are by definition not visible, the frames appear complete. It can be hard to change a frame once we get locked into it and are emotionally attached to it, and changing the frame can seem threatening. Palazzo & Hoffrage (2014) explain that if a strong organisational frame is being challenged then we can feel threatened on a personal level if our identity is closely associated with that of the organisation, and so we may be inclined act to maintain the stability of that system. They propose that the main driver of ethical blindness is fear: for example fear of losing status or of being marginalised. From the perspective of Self-Determination Theory this is threat to relatedness needs (see 2.3.3), which triggers a defence response (Skinner et al 2003). Concern for status is a self-enhancement value and extrinsic goal (see 2.3.1) and fear of losing status and being excluded suggests ego-involvement, which is associated with a sense of pressure, tension and instability of self-esteem (see also 2.4.2).

Palazzo & Hoffrage propose mindfulness as a strategy for individuals to resist contextual pressures and the unconscious priming effects of organisational discourse by increasing awareness of the dynamics of strong contexts, noticing small compromises, and making conscious decisions rather than automatic habitual ones. In Self-Determination Theory mindfulness is thought to support autonomous action and healthy self-regulation (see 2.3.3), and engagement with difficult emotions such as fear (see 2.5.4). Palazzo & Hoffrage (2014) argue that we need to 'exercise our moral muscles' by constantly training our character so these muscles don't become weak. This echoes points made earlier about the need for long-

term practices that develop nature connection states into a trait to strengthen ecological identity (see 2.4.3), and that the capacity for mindfulness can be cultivated with training (see 2.3.3).

#### **2.6.4 Conclusions from cognitive frames literature**

In this section I have provided a summary of key concepts in cognitive linguistics that I have drawn upon in my study, specifically cognitive frames, conceptual metaphors and image schema. The relationship between cognitive frames and cultural worldviews, and between cognitive frames and metaphors has been clarified. I presented four metaphors from linguistics literature on sustainability and environmental discourse: NATURE IS CONTAINER/OBJECT, NATURE IS ECONOMIC RESOURCE, NATURE IS MACHINE and NATURE IS EVIL, explaining the implications of these metaphors for the way we think about and act towards the natural world. I also discussed the metaphor ACTIVITY IS WAR found to occur in organisations where there have been ethical scandals, and highlighted the role of mindfulness in defending against organisational pressures.

I also highlighted two gaps in research, namely cognitive frames analysis in psychology and social science research on human responses to ecological crisis, and individual-level analysis of self-nature relationship in cognitive/ecolinguistics research.

#### **Relevance to my research**

My study addresses both of the gaps in research described above.

Due to the significant influence that language has on cognition and behaviour, and because we are so susceptible to being unconsciously primed by the discourse of social contexts such as organisations, I have analysed participants' accounts of their experience for cognitive frames and conceptual metaphors used to talk about nature, and about their experience of

working in their organisation. With this analysis I can make inferences about how the participants conceptualise their relationship with nature and with their organisations. Informed by the theory discussed in this section I then reason whether these conceptualisations appear congruent with a pro-environmental response.

Enquiring into the mindful awareness of participants has already been covered in previous conclusions, including its role as a strategy for resisting priming effects of organisational discourse (see 2.3.4, 2.4.5, 2.5.5).

I have also tried to apply the theory discussed above in the writing of this thesis, and discovered how difficult it is to find alternative metaphors that don't sound clumsy or weird. One change I have made which I think could take hold is to use the term *nature's resources* instead of *natural resources*, which makes it explicit where ownership really belongs. This difficulty I experienced is acknowledged in the literature: Lakoff (2010) says we are suffering from massive 'hypocognition' or lack of ideas with regards to the new pro-environmental frames about nature that we urgently need.

## **2.7 CULTURAL WORLDVIEWS**

In this section I discuss literature on cultural worldviews that are regarded as causes of ecological crisis. Insights from this work constitute the environmental philosophy that informs my research.

I begin with a brief introduction to position the thinking on cultural worldviews (i) in the context of the overarching research area of responses to ecological crisis, and (ii) to the themes explored so far: values, identity, psychological threat response and cognitive frames, that are psychosocial factors influencing response.

I then discuss some of the key ideas in the literature as they relate to human-nature relationship. The cultural worldviews I discuss underpin the modern industrial growth society in which the research participants - and I - are embedded. This literature is relevant to my research because it provides an explanation of why ecologically maladaptive behaviours persist: we are embedded in a cultural worldview that is fundamentally pathological. By discussing this literature I make explicit the normative framework against which I judge the participants' language for its adaptive and maladaptive implications (see 1.1.2; Stibbe 2013).

### **2.7.1 Introducing cultural worldviews**

In the Introduction to this thesis, I set out the basic facts of ecological crisis: escalating human-caused disruption of planetary life support systems, damage and destruction of natural habitats, diminishing numbers of wildlife and extinction of entire species (see 1.1.1). The literature on cultural worldviews explores beliefs that are held at the collective level of human culture, and offers insights into the conundrum of why ecologically maladaptive behaviours persist in the face of compelling evidence that these behaviours are dangerous to life. The worldview that is dominant in a society pervades all aspects of life, and constitutes the broader contextual forces influencing each individual's values, identities, threat responses and cognitive frames, as well as influencing the organisations in which they work. As Uzzell & Rätzl (2009 p348) state, "behaviours need to be analysed in their specific social and environmental contexts and within the larger context of the consumer societies in which we live.. (because) the individual and the external world are linked in complex and mutual ways". This is why I judged it important to take cultural worldviews into consideration in my research by analysing participants' accounts and their organisations' environmental policy and strategy documents for the kinds of beliefs, values, assumptions and presuppositions that I highlight in this section.

The cultural worldviews that human societies construct serve to convey a sense of living in a world of order and meaning. The worldview gives purpose and sense of meaning to life (Solomon et al 2003). However, the influence of a cultural worldview often goes unnoticed, its assumptions unchallenged. This is because with repeated and ubiquitous exposure to its discourse, the worldview becomes internalised and is no longer obvious. It is taken for granted as something natural, rather than as something that we created and can therefore change. But as many scholars have pointed out, without fundamentally changing our maladaptive core beliefs, the kinds of solutions we come up with to deal with current problems will be inadequate, and these problems will necessarily worsen and proliferate as human population and material demands continue to increase as expected (e.g. Klein 2014; Foster 2015; Wright & Nyberg 2015).

From my reading of literature in this area, prime contenders for most ecologically damaging cultural beliefs are:

- Humans have a moral right to dominate and exploit the natural world for our own ends because it exists for that purpose
- Humans are different from and superior to nature, and we can free ourselves from the limits of nature through our ingenuity
- We can control nature and harness its forces through technoscience (i.e. the union of science and technology)
- Accumulation of material wealth is desirable because it is a measure of success, status and worth
- Human progress (improving the human condition) depends on advancement of technoscience and continuous economic growth
- Problems created by the above (e.g. human poverty and inequality, overwhelm of biosphere cycles and processes) can be solved by doing more of the same (e.g. techno-fixing our way out of climate crisis, marketising communal goods)

These beliefs are fundamentally about the human-nature relationship and about what success means. In this section I discuss literature that speaks to these topics from a cultural rather than an individual-level perspective, which has been the focus of the literature review so far.

Before I begin, I wish to point out that this set of beliefs is not necessarily coherent and it can contain conflicting views. For example, at the same time as believing that human ingenuity will triumph through technoscience, with climate change denial there is also a rejection of the authority of science (Hamilton 2010). And whilst the worldview of human separation from nature has underpinned technoscience, it is science that also shows humans to be firmly connected with the living world, for example with Darwin's theory of evolution, and more recently with comparison of the genomes of humans with other species and the discovery that the human body comprises ten times as many microbial cells as human cells.

### **2.7.2 Human-nature dualism**

In the previous section I discussed a common conceptualisation of nature as a separate object that we can act upon and manipulate (see 2.6.2). Perception of nature as separate seems to be deep in our<sup>11</sup> conceptual systems and cannot easily be erased (Lakoff 2010; Bateson 1982). The perception can lead to regarding nature as out-group, which is thought to frustrate emergence of a sense of self as part of nature (Crompton & Kasser 2009).

Human-nature separation as Plumwood (1993) explains, manifests as a dualism, which is not just a dichotomous pairing but “an intense, established and developed cultural expression of hierarchical relationship, constructing central cultural concepts and identities so as to make equality and mutuality literally unthinkable” (p47). In other words, humans are not just

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<sup>11</sup> Those of us in industrialised societies

separate from nature: they are also superior to nature. With this sense of superiority come the other beliefs of moral entitlement to exploit nature and ability to transcend the limits of nature. The main characteristics of human-nature dualism for Plumwood (1993) are shown in the table below:

Fig 2.10 Characteristics of human-nature dualism (Plumwood 1993)

<p><i>Radical exclusion and hyperseparation</i></p> <p>This involves magnifying and maximising the quantity and importance of differences, and eliminating, denying, minimising or treating as inessential the shared qualities</p>
<p><i>Distancing and backgrounding</i></p> <p>Treating nature as background to civilised human life, taking nature for granted, denying its reality, making nature inessential and denying the importance of its contribution.</p>
<p><i>Opposition between orders</i></p> <p>The division is treated as natural, inherent to the nature of things, and hence not open to change</p>
<p><i>Instrumentalism and objectification</i></p> <p>Nature is objectified without ends of its own. Humans are the only proper objects of moral consideration, with 'the rest' defined as past of the sphere of expediency. Means and ends are separated into a dualism of their own, avoiding threatening ambiguities or confusions about what belongs where, or finding oneself on the wrong side of the boundary: the used instead of the user</p>
<p><i>Homogenisation and stereotyping</i></p> <p>Disregarding or denial of diversity</p>

Why do we have this human-nature dualism and where did it originate?

Many scholars point to the Scientific Revolution<sup>12</sup>, and the mind-body dualism philosophy that Descartes<sup>13</sup> developed in the Enlightenment period (e.g. Kahn & Hasbach 2012). Some scholars also trace the roots of the worldview comprising the dualisms described above as extending much further back than the Scientific Revolution to what White (1967) refers to as the victory of western Christianity over paganism and its discourse of God-given human dominion over nature. It is interesting then to see Pope Francis challenge this as a fallacy in

<sup>12</sup> The Scientific Revolution was from mid 1500s to mid 1700s

<sup>13</sup> I have referred to Cartesian dualism already in this thesis, in relation to rewilding the psyche in the chapter on identity (see 2.4.3) and in the chapter on psychological threat in relation to disembodiment (see 2.5.4), and in the cognitive frames chapter (see 2.6.2).

his recent encyclical (Francis I 2015), as I mentioned earlier with regard to economic frames about nature (see 2.6.2).

### **Mind-body dualism**

Descartes disembodied the mind in a “violent separation of mind from body” (Midgley 2003 p39). The ecological crisis as Plumwood (2002) sees it, is a “crisis of a cultural ‘mind’ that cannot acknowledge and adapt itself properly to its material ‘body’, the embodied and ecological support base it draws on in the long-denied counter sphere of ‘nature’ “ (p15). In disembodiment, reason (which was associated with the mind) also became disembodied. Emotion came to be seen as soft and “beneath the dignity of scientists” (Midgley 2003 p18). Other aspects of human life regarded as associated with nature were also conceptualised in dualistic relationships, such as male-female, and civilised-primitive/savage, which I will come back to shortly. In disembodiment, in a dualism of radical exclusion and hyperseparation, we disconnect, deny or denigrate natural parts of ourselves. From an ecopsychology perspective, the unconscious mind is the deepest inner wilderness (Totton 2011).

### **2.7.3 Modern science and exploitation of nature**

The idea that it is in the Scientific Revolution that human-nature dualism took hold as a dominant ideology is supported by the etymology of the term *nature* in English. The meaning of ‘creation or universe’ dates to the late 14<sup>th</sup> century, and as ‘phenomena of the physical world not including humans’ to the 1660s (OED Online 2015; Etymonline 2015). This shows that the conceptual shift in language separating humans from nature arises just after Descartes’ death and in the middle of the Scientific Revolution.

From a postcolonial feminist perspective, the Scientific Revolution sanctioned the exploitation not just of nature but also of women and of other peoples in a long period of

European colonialism, oppression and enslavement of indigenous populations (Merchant 1983; Plumwood 1993). In both western and non-western cultures, Merchant (1983) reports, nature was traditionally characterised as female. In various European languages nature was (and still is) a feminine noun. The idea of nature as a nurturing mother is an ancient one. However, there was also an opposing image of nature as wild and uncontrollable, which Merchant links to the persecution of tens of thousands of women as witches during this period. Merchant explains that the once predominant metaphor of the earth as nurturing mother reduced in salience as the Scientific Revolution proceeded to mechanise and rationalise western culture in the 1600s, and metaphors of control such as NATURE IS MACHINE and NATURE IS DISORDER assumed ascendancy instead.

Mechanistic conceptualisations of nature that developed in this period are thought to have reinforced and accelerated the exploitation of nature and of human beings as resources (Merchant 1983) (see 2.6.2 for NATURE IS ECONOMIC RESOURCE as a conceptual metaphor). This is because the emergence of modern science marked a shift in ways of understanding the world that Max Weber termed 'disenchantment'. No longer a religious approach involving mystery and magic, science was a secular approach of calculation, rationalisation and intellectualisation (Curry 2011). The world had an objective reality that could be observed, measured and explained. Disenchanted the world through science, Curry (2011) asserts, is a fundamental pre-requisite to exploiting, commodifying and selling it. Mechanistic metaphors are still potent today Midgley (2003) observes, with terms such as *genetic engineering*. This analysis shows that science is not value-free but as Howarth (2001) says is "laden with the value of humans as controllers of nature". And these values can become implicated in the design of technology (Friedman & Kahn 2003; Langdon 1980).

### **Fear of death, and transcending limits of nature**

Perception of nature as wild and uncontrollable positions nature as a psychological threat, which leads to efforts to defend against its threats to civilised life, and to tame wildness and instil order through domestication of plants, animals and people (Totton 2011; Midgley 2003). This gives the impression of control over nature, and by extension the illusion we can transcend its limits.

The ultimate natural limit is death. Terror management theory explains that awareness of mortality and our ultimate helplessness and vulnerability to annihilation induces feelings of overwhelming anxiety (Solomon et al 2003). It is in order to help us manage these emotions and cope with existential threat, that human societies construct cultural worldviews that serve to convey a sense of living in a world of order and meaning (Solomon et al 2003). Existential threat, as I noted earlier (see 2.5.2), tends to motivate people to enhance their self-esteem through prioritising extrinsic goals of material wealth and success (Sheldon & Kasser 2008), unless sense of self as part of nature is strong (Fritsche & Häfner 2012). This creates attachment at a collective level to material progress, an attachment that is driving both ecological crisis and denial of ecological crisis (Foster 2015).

Various authors hold the view that one reason humans are so obsessed with technology is because it promises transcendence from mortality and gives the illusion of living in a world without limits (Illich 2009; Noble 1997; Hefner 2002 cited in Coeckelbergh 2010 p961). It is exactly this belief of a world without limits that has led to overexploitation of nature's resources and overwhelming of planetary cycles and processes.

#### **2.7.4 Technoscience and progressivism**

White (1967) dates the union of science with technology to the mid 1800s, after the end of the Industrial Revolution<sup>14</sup>. This union enabled exploitation of nature on an unprecedented scale, beyond that of the Scientific Revolution in the preceding centuries. The Industrial Revolution says Bateson (1982 p311), came with an “enormous increase of scientific arrogance”. Arrogance, superiority, exploitativeness and entitlement are dimensions of narcissism (Frantz et al 2005), which can apply to societies and organisations as much as to individuals. With the rise of consumer culture, narcissism has become more prevalent in society (Lasch 1979; Kanner & Gomes 1995). Narcissism as previously noted (see 2.4.3) seems to be an inhibitor of nature connectedness and is viewed as a major barrier to resolving environmental problems (Frantz et al 2005).

Progressivism is the belief that advancement of technoscience, industrialisation and economic development are vital to improve the human condition (Foster 2015). Such progress is often conceptualised as natural and good (Larson 2011; Goatly 2007).

#### **Technological industrialism and ideas of progress**

Though a finger of blame is often pointed at capitalism, some scholars regard ecological crisis as caused not by capitalism per se but by technological industrialism, an ideology signed up to by both capitalism and socialism (e.g. Hamilton 2012; Klein 2015). Marx initially saw capitalism and science as expressions of human alienation from nature. A good society, in his view, was one where the alienation between humans and between humans and nature would be overcome and oneness with nature would be realised. However, by the late 1840s Marx shifted his position and now understood human freedom and self determination as a struggle against the limits imposed by nature, and thought that by applying science and

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<sup>14</sup> The Industrial Revolution was from mid 1700s to mid 1800s

technology to harness the forces of nature for human purposes, social wealth could be vastly increased (Benton & Craib, 2001).

Technoscience and industrialisation have indeed been instruments of human progress towards greater material wealth and freedom, but paradoxically as some argue technoscience has also constrained our freedom because we have allowed *it* to control *us* (e.g. Wiener 1953/1985 cited in Friedman & Kahn 2003 p1195; Illich 1992 cited in Curry 2011 p169; Adorno and Horkheimer cited in Benton & Craib 2001). Nevertheless, the key concept of progress is infinite advancement and exponential expansion (“things can only get better”) from a primitive past to an ever increasingly civilised future (Foster 2015). The idea of progress as perpetual advance has been dated back to the Classical period but Foster (2015) points out that assumptions about economic growth as the driver of progress emerged in the 20<sup>th</sup> century with the liberal-democratic state.

### **Technofix is an addiction**

Wright (2004) regards our relationship with technoscience as having addictive qualities such that all problems, even those that arise as a consequence of technoscience and material progress, are believed to be resolvable through more technoscience. The idea that that technology can solve the problem it created in an earlier version of itself is for Wright an ‘ideological pathology’ (p61) and a progress trap. In Diamond’s (2005) work on the collapse of civilisations, when faced with crisis they do not understand, he finds that civilisations tend to reinforce the very routines that put them into that crisis, through force of habit rather than by reason. In times of disruptive change, routines become a trap. Howarth (2001) explains that a phenomenological perspective such as that taken by Heidegger sees humans as increasingly enframed by technology, with technological imperative and technological fix

taken for granted. The world and the care distinctive of our proper dealings with it, she says, are out of sight behind the technological interface.

Beliefs that ecological problems can be 'techno-fixed' through for example geo-engineering, sidesteps the inconvenience of significant behaviour change whilst also in its use of the conceptual metaphor NATURE IS MACHINE ignores the complex nature of natural systems which make the possibility of negative unintended consequences of such interventions very likely.

For these reasons, technofix can be regarded as a maladaptive coping strategy of:

- Wishful thinking and unrealistic optimism (see 2.5.3)
- Denial or disavowal of interconnectedness
- Self-enhancement through narcissism and scientific arrogance

The ideological pathology of using technoscience to solve problems created by technoscience, also holds for capitalism, which sees the answer to climate crisis as more capitalism, where nature and even carbon emissions are turned into a commodity (see 2.6.2). Wright & Nyberg (2015) call this process 'creative self-destruction' whereby global capitalism devises ever more ingenious ways to exploit and consume the earth's resources and life support systems.

### **Why this addiction matters**

Attachment to material progress involves pursuit of extrinsic goals, which as already established (see 2.3.1), does not fully satisfy intrinsic needs. This deficiency in need satisfaction can create maladaptive cycles of materialistic behaviour, which Foster (2015 p84) posits fuels progressivism through the "permanent elusiveness of achievement".

Pursuit of endless progress and exponential economic growth through technoscience, with

business models based on built-in obsolescence and short lifespans to drive consumption and hence profits, demands ever more exploitation of finite natural resources as if they were infinite, and this is having huge negative impacts on human and nonhuman nature. As the literature makes clear, progressivism is both a root cause of ecological crisis and an impediment to responding adaptively to ecological crisis.

These ideas, beliefs, assumptions and presuppositions about human-nature relationship and about progress and growth, constitute the social, cultural and economic context in which the research participants and their organisations are embedded.

#### **2.7.5 Conclusions from cultural worldviews literature**

In this section I have discussed belief systems and assumptions underpinning the modern industrial growth society in which the research participants and I are embedded, that the literature identifies as root causes of current ecological crisis. Whether, and how, this worldview manifests for my research participants is a crucial consideration.

The technoscience of the Industrial Revolution has evolved in both complexity and quantity with ever-increasing speed to the digital world of today. But the worldview that first gained dominance in the Scientific Revolution that believed humans to be separate from and superiority to nature, that nature could - and should - be controlled and exploited, is still dominant over 400 years later, and has been made more toxic with beliefs about the inherent rightness of infinite material progress and economic growth.

This worldview in its ubiquity may become so internalised in our psyches that we do not notice when it shapes our thinking and behaviour, including our way of thinking about how we should interact with the natural world in this digital age. Yet it needs to be made visible

so that as Griffin (1995) says, patterns of abuse can be changed. A psychosocial approach to understanding our maladaptive responses to ecological crisis that draws on the theories discussed in this literature review contributes to this essential project.

From my reading of the literature, the facts of ecological crisis are so resisted because they confront us with the reality that the deeply entrenched and longstanding cultural worldview described in this section *is no longer tenable*. As Naomi Klein (2014) says, climate change is a crisis of civilisation: a crisis of story. This is hugely threatening on a psychological level, which is why increasing understanding of how psychological processes interact with contextual forces is vital and urgent.

## **2.8 CHAPTER SUMMARY**

In this chapter I have reviewed empirical and theoretical research on psychosocial factors influencing behavioural responses to ecological crisis and the congruent enactment of pro-environmental values. I have positioned this work within a much broader field of research on human responses to ecological crisis. I have drawn on and integrated various domains and perspectives in creating this narrative.

Discussion of the key insights from this literature has focussed on the particular themes of: values, goals, needs, mindfulness and motivation; identity and the self; psychological threat; cognitive frames; and cultural worldviews. With each, I have explained what these insights mean for my study and how they inform my analysis. The psychological dimensions of ecological crisis discussed have been shown to be psychosocial processes: they involve psychological processes interacting with contextual forces to shape cognition and behaviour. These processes are embodied and situated, and tend to happen below the level of conscious awareness.

Throughout, I have highlighted gaps in research on human responses to ecological crisis. I now summarise these gaps, present the research aims and questions that address these gaps, and demonstrate the contribution of my study to particular areas of knowledge.

### **2.8.1 Gaps in research**

Firstly, individual environmental behaviour studies are often decontextualized, which is the conventional approach in psychology research (Clayton et al 2015b). Where they have been contextualised it has tended to focus on consumer behaviour and the private realm (Stern 2000; Stern 2011), whereas the workplace as a context for studying individual behaviour is less well researched (Stern 2000; Lo 2015). Indeed, a review in 2009 of literature on green behaviour found the workplace was almost entirely overlooked (Davis & Challenger 2009, cited in Plank 2011). The focus of research on environmental behaviour in organisations has been at organisational, institutional and global levels of research (Sharma & Starik 2002; Lüfts & Hahn 2014; Guthey, Whiteman & Elmes 2014; Lo 2015). Where there is research on individual behaviour, it is generally from the perspective of the organisation aiming to improve employee green behaviour (Lüfts & Hahn 2014; Ciocirlan 2016; Norton et al 2015) rather than from the perspective of the individual employee who is oriented to pro-environmental values and is seeking to influence the organisation's actions, which is how an individual can significantly affect the natural environment (Stern 2000). As Lorenzoni & Pidgeon (2006, cited in Plank 2011) state, understanding of human attitudes and behaviour in the workplace is necessary in order to help change behaviour away from environmentally harmful activities and towards environmental sustainability.

Secondly, the focus of research relating to human responses to ecological crisis has tended to be on what people think and how they behave and on interventions to change behaviour (Bartlett 2011; Wright, Nyberg & Grant 2012; Lertzman 2015; Spence, Pidgeon & Uzzell

2009). Underlying drivers of behavioural responses, the mostly unconscious processes of motivations, desires and impulses are less well researched (Bartlett 2011; Lertzman 2015; Norgaard 2006; Lo 2015; Kennedy, Whiteman & Williams 2015; Sharma & Starik 2002). There is little understanding of the role of emotions in influencing pro-environmental behaviour in organisations (Russell & Friedrich 2015).

Thirdly, much of the research on environmental behaviour is reductionist in that it only takes into account a single or small number of variables and tends not to be interdisciplinary. Few studies explore the interaction between multiple factors influencing behaviour and decision-making (IPCC 2014), including diverse psychological and social factors in particular contexts (Norgaard 2006; Uzzell & Rätzl 2009). The interaction between individual and organisational levels remains under-researched (Kennedy, Whiteman & Williams 2015; Lo 2015; Russell & Friedrich 2015). There is a need for an interdisciplinary approach for researching the complexity of environmental behaviour (Stern 2000).

Fourthly, there have been calls for more research using cognitive linguistics approaches to examine the “psychosocial origins of organizational texts, narratives and meanings, which lie beneath the subtext of social interaction” (Grant et al 2004 p24).

I address these gaps in my research in the following ways:

- Situating individuals in their work settings, specifically individuals oriented to pro-environmental values with formal role that involve influencing environmental policy, strategy and practice in the organisation. My multi-level analysis also situates individuals in the macro context of the dominant cultural worldview of the Western industrialised societies in which they, and their organisations, are embedded.

- Exploring underlying psychosocial drivers of behaviour, specifically in terms of factors affecting enactment of pro-environmental values
- Taking a transdisciplinary approach that integrates perspectives and theories from a wide range of disciplines including social psychology, ecopsychology, environmental philosophy, cognitive linguistics and ecolinguistics. This allows for multiple factors from different domains to be considered. Enquiring into the participants' lived experience allows for study of the actual forces in play in their particular context. I also explore how factors interact with each other as dynamic processes.
- Using frames and metaphor analysis (a micro-discourse analysis method) in data analysis and interpretation

Bringing these points of focus together makes my study a highly original transdisciplinary and multidimensional piece of work. The table below shows how my approach to addressing these gaps is expressed as research questions.

Fig. 2.11 Relationship of research questions to gaps in research

<b>Gaps in research</b>	<b>Research Question</b>
Studying individuals and their responses to ecological crisis in their work settings	What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?
Underlying psychosocial drivers of environmental behaviour	What psychosocial factors can be identified that influence the participants' enactment of pro-environmental values in their work?
Multiple factors and their interaction	How do these factors interact as process?
Individuals in formal sustainability roles seeking to improve the organisation's environmental practices	What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?
Cognitive linguistics approach	(addressed in methodology)

The premise is that by enquiring into the lived experience of research participants, data is generated that can be analysed for psychosocial factors influencing cognition and behaviour.

## 2.8.2 Research aims and questions

Informed by the literature, I have identified three key aims for my study. The table columns below show the relationship of the study aims, research questions and methodology. The methodology and the rationale are discussed in depth in the following chapters. The process of conducting the research from recruitment of participants to interpreting the findings is described in detail.

Fig. 2.12 Research aims, questions and methodology

RESEARCH AIMS		
<i>Aim 1:</i> To gain new insight into psychosocial factors affecting congruent enactment of pro-environmental values by individuals in their work to influence organisational practices		<i>Aim 2:</i> To generate knowledge and understanding that may be of practical use to sustainability professionals and environmentalists
RESEARCH QUESTIONS		
<i>RQ1.</i> What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?	<i>RQ2.</i> What psychosocial factors can be identified that influence the participants' enactment of pro-environmental values in their work?  How do these factors interact as processes?	<i>RQ3.</i> What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?
METHODOLOGY		
Enquire into participants' lived experience with regard to their work of seeking to influence and improve pro-environmental practices in their organisation	Draw on literature to identify factors involved in such experience that affect how pro-environmental values are enacted  Identify how key factors interact as processes	Model the dynamic processes, showing feedback loops, thus enabling identification of points of intervention to alter the dynamics  Draw conclusions about the consequences/implications of these processes for individual effectiveness

### 3 RESEARCH PROCESS > METHODOLOGY

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In the preceding chapter of this thesis I reviewed literature relating to psychosocial factors influencing human responses to ecological crisis and identified gaps in research. This led to the development of research aims and questions (see 2.8.3) aimed at addressing gaps in research with specific reference to factors affecting enactment of pro-environmental values by individuals in their work to influence organisational practices.

I present the methodology for my study in two main parts. In this first part (chapter 3) I discuss philosophical considerations and research methods with reference to relevant literature, and draw conclusions about what constitutes an appropriate and coherent methodology for my study. The second part (chapter 4) provides an account of my process of implementing the methodology, explaining the rationale for the methods used to select participants, and to generate, analyse and interpret data, outlining key learning and adaptations made during the process. The second part of the methodology section ends with commentary contextualising the study with regards to assumptions made in the research; scope of the study, strengths and limitations of the methodology, and ethical considerations.

#### 3.1 INTRODUCTION

As I concluded in my review of literature, factors influencing behavioural responses are *psychosocial* in nature; that is they involve psychological processes interacting with contextual forces. These factors include: strength and salience of values, goals, identity and cognitive frames; psychological threat responses, emotional management, needs and motivation. These factors as underlying drivers of behaviour are often unconscious

(Kahneman 2013; Breakwell 1986; Vignoles et al 2011; Lertzman 2015; Maio et al 2011; Thibodeau & Boroditsky 2011; Lakoff & Johnson 1980; Cramer 1998; Rogelberg 2006; Willig & Stainton-Rogers 2010) so they are not as readily accessible to the conscious mind and are less easy to articulate directly than opinions (Swim et al 2011), which is perhaps the reason why opinions and intentions are researched more often.

Psychology research into environmental attitudes and behaviour has been dominated in recent decades by quantitative approaches, mostly relying on self-report survey and quasi-experimental methods. These approaches are useful for establishing correlations between variables but they are limited in their ability to contribute to understanding the meanings that people make of their lived experience, how people respond to emerging situations in daily life - and critically for the focus of my study - how a person's behavioural response is shaped by various psychosocial processes that unfold and interact with each other in complex ways as the person engages with the world and its diverse forces. Developing areas of knowledge about psychosocial processes may help us better understand and address the troubling dissonance between the scale and urgency of ecological crisis and the relatively small and slow human behavioural response.

Interpretative Phenomenological Analysis (IPA) has emerged in recent years as a new addition to qualitative psychology research. IPA is concerned with the detailed examination of lived experience through intersubjective inquiry and analysis. It focuses on the personal meaning and sensemaking of particular individuals, in a particular context, who share a particular experience (Smith, Flowers & Larkin 2009; Larkin, Watts & Clifton 2006). I chose IPA because a) it seemed appropriate as a methodological framework for my enquiry into psychosocial factors affecting how pro-environmental values are enacted by individuals in a particular context i.e. their organisation; and b) because it is compatible with the

epistemology of cognitive linguistics, sharing its interest in embodiment. In this chapter I elicit my reasoning for this choice, with reference to literature on methodology and epistemology. I begin with discussion of philosophical considerations, and then look more specifically at research methods for generating, analysing and interpreting data.

### **3.2 PHILOSOPHICAL CONSIDERATIONS**

One of the key issues to address was whether to design the study using quantitative, qualitative or a mixed methods approach, and within these broad categories, which contain various different paradigms, to consider which particular methods would be most appropriate for the study. This included accepting the possibility of ‘methodological pluralism’ (Gill & Johnson 1997) where there is no single best research method. In order to understand the positioning of Interpretative Phenomenological Analysis philosophically, I explored various approaches and schools of thought about what phenomena are and how they can be known, drawing mainly on psychology, linguistics, and organisational studies methodology literature.

#### **3.2.1 Neither objectivism nor subjectivism**

A dichotomy is often made between objectivism and subjectivism, in a legacy of Cartesian dualism (see 2.6.2 on object-subject frame). But both Interpretative Phenomenological Analysis (IPA) and cognitive linguistics reject the idea that the only alternative to objectivism is subjectivism. Objectivism is the belief that an objective reality exists independent of the observer and that it can be known and defined in terms of its inherent observable properties. It is associated with the paradigm of positivism, which regards only knowledge derived from the scientific method of measurement, reason and logic as legitimate and which therefore typically involves quantitative data. The extreme opposite view of

subjectivism is that things can never be known in themselves or that meaning can only ever be private because there is no external or objective truth.

IPA recognises that it is not possible, nor desirable, to remove our thoughts and meaning systems from our observations of the world, in order to find out how things 'really are' in an objective sense (Larkin, Watts & Clifton 2006). IPA sees individuals as essentially embedded, intertwined and immersed in the world of objects and relationships, language and culture, projects and concerns (Smith, Flowers & Larkin 2009; Larkin, Watts & Clifton 2006).

Experience is a lived process, an "unfurling of perspectives and meanings, which are unique to the person's embodied and situated relationship to the world" (Smith, Flowers & Larkin 2009 p21). It is in being 'out there' in the world that our subjective worlds are not hidden inside but are located and observable in relationship to some context of already meaningful objects. IPA encompasses the real and the constructed, in an emerging new paradigm in psychology of 'epistemological eclecticism' (Larkin, Watts & Clifton 2006). Psychosocial studies as a field of academic inquiry is also non-positivistic (Association for Psychosocial Studies 2015).

In similar vein to IPA, Lakoff & Johnson argue for a third choice of 'embodied realism' for cognitive linguistics (1999; Johnson & Lakoff 2002). As they explain, "Truth is always relative to a conceptual system, grounded in and continually tested by our experiences of interacting with the world". By way of explanation they offer the following example: "a clearing is not an inherent property of that place in the woods where the trees are less dense but a property that we project onto it relative to the way we function with respect to it" (1980 p158).

Meaning is generated in and through ongoing embodied interactions with our changing environments (Johnson & Lakoff 2002).

IPA has been described as occupying an epistemological position between critical realism and contextual constructivism (Hefferon 2013). Critical realism regards social conditions such as wealth to be human constructions but recognises that they have real consequences (Easterby-Smith et al 2008). Contextual constructivism is a type of constructivist theory. Constructivism says that humans generate knowledge and meaning through interaction. Contextual constructivism is specifically concerned with understanding the fundamental socio-culturally based beliefs that an individual uses to build knowledge, and how these beliefs are supported by culture (Cobern 1993). This concern with the influence of contextual forces is consistent with a psychosocial approach, and also lends itself to a cognitive linguistics approach of frames and metaphor analysis. Contextual constructivism also emphasises meaning making and the application of the meaning in real life situations (Mogashoa 2014). Contextual constructivist research not only raises new research questions, but might also call for a new research paradigm (Cobern 1993). “In choosing IPA for a research project” Larkin, Watts & Clifton (2006) state, “we commit ourselves to exploring, describing, interpreting, and situating the means by which our participants make sense of their experiences” (p110). The epistemology and ontology of IPA and embodied realism means that a participant’s account of their lived experience is *already* situated because the meaning they make emerges out of their ongoing interactions with the world. Attempts by researchers to objectively assess the organisational context in which the participants’ are situated would create an epistemological tension with this methodology, and are not especially relevant to a study exploring the individual’s perceptions and understandings. I discuss the meaning of ‘context’ in this thesis further below (see 3.2.3).

Objectivism rejects intuitive knowledge but it is accepted in IPA as a valid form of subjective understanding (Smith, Flowers & Larkin 2009). I discuss intuitive knowledge further below as part of a discussion on reflexivity and emotion (see 3.2.4).

### **3.2.2 Quantitative and qualitative research**

Much of the literature that I discussed in the preceding chapter is based on quantitative research. This approach aims to explain and predict the probability of phenomena through understanding causal or correlational relationships and by measuring prevalence or incidence. It uses deductive reasoning and is concerned with formulating and testing a hypothesis or proposition, typically using questionnaire, survey, experimental or quasi-experimental methods. It is non-participatory with regards to involvement of research subjects. The limitations of self-report methodologies using descriptive analyses have been well documented (e.g. Podsakoff et al 2012).

Quantitative research has been dominant in psychology since the start of the 20<sup>th</sup> century, an emphasis that Willig & Stainton-Rogers (2010) state is partly driven by socio-economic demands for quantitative data to inform social policy. But qualitative research has always been part of psychology (Danziger 1990 cited in Willig & Stainton-Rogers 2010). With a revaluing of subjectivist methods of enquiry in recent years, qualitative research is now increasingly being re-integrated into the mainstream of psychology research, driven in part by the 'turn to language' - the interest in the construction of meaning and its consequences through language (Willig & Stainton-Rogers 2010).

Whilst containing differing philosophical approaches and assumptions, qualitative research is broadly concerned with meaning and sensemaking: what meanings people make, why they arise, how they are shared, and what the consequences are. It tends to explore phenomena from the perspective of those being studied and may be participatory involving research subjects in aspects of the study. Qualitative research may aim to include the complexity of a systemic approach, whereas quantitative research tends to be reductionist. Qualitative research involves inductive and/or abductive approaches. I found some differences in

opinion in the literature about what inductive and abductive means exactly. I have used the following definitions:

- *Inductive reasoning* starts with specific description or observation and moves towards generalised explanation or theory development (Lancaster 2005). Asking research participants open questions is an inductive approach (Eatough & Smith 2010), whereas a closed question would be deductive.
- *Abductive reasoning* involves a creative leap of imagination to arrive at a reasonable best guess to explain incomplete observations. Abduction can result in new conceptual frameworks or theories (Danermark et al 2002).

Analysis and interpretation of qualitative studies largely depends on the “intimate, tacit knowledge” of the researcher (Easterby-Smith et al 2008 p72). Because of this, the knowledge claims of qualitative research are questioned, and undermined, by those with a positivist mindset.

Quantitative and qualitative approaches are often seen as coming out of different and incompatible paradigms (Oakley 1999), however in practice the dichotomy between quantitative and qualitative may not be so clear-cut (Blaxter et al 2001). There are many management research studies that pragmatically combine methods from different paradigms, judging that research problems require eclectic designs (Easterby-Smith et al 2008). Despite this, Easterby-Smith et al (2008) observe that a mixed methods approach is often frowned upon in academia and can cause problems in interpreting data if the different methods yield contradictory results, which in order to resolve then require more time for further exploration and explanation. The motivation for using mixed methods may also come from a lack of confidence in the validity of qualitative research. For example Lancaster (2005) cautions against “letting a desire for more objective and scientific techniques of analysis panic us into imposing an artificial framework of rigour” onto qualitative analysis for

example by codifying and classifying data, “thereby detracting from the essential nature and inherent advantages of qualitative data analysis” (p165). There is a view that much qualitative psychology research until now has implicitly adhered to a positivist epistemology, following the conventional structure of a quantitative research report, and avoiding overt interpretation with an emphasis instead on careful description (Willig & Stainton-Rogers 2010). But as Willig & Stainton-Rogers (2010) point out, “our analyses of data will always be mediated by us, the researchers” (p6), and they see interest in the role of interpretation growing: qualitative research is becoming more interpretative.

Interpretative Phenomenological Analysis as a qualitative research approach is explicitly interpretative, and its acceptance of intersubjective and intuitive analysis directly challenges the assumptions of objectivism and positivism. In using this framework to generate knowledge I can expect criticism of lack of rigour from those who subscribe to a positivist philosophy, which unfortunately is still dominant in academia. It may also be criticised by those with subjectivist or relativist mindset. A relativist mindset holds that truth is not absolute but exists in relation to culture and context, and there are no external criteria for judging whether claims made about what is real are good or bad.

### **3.2.3 Interpretative Phenomenological Analysis**

As the name indicates, Interpretative Phenomenological Analysis aims to go beyond mere description in generating understanding of how someone comes to experience and make sense of a given phenomenon in a particular context (Willig & Stainton-Rogers 2010). So with the subject-matter of ‘influencing pro-environmental practices in organisations’, an IPA focus is not with the nature of this experience per se but with a *particular person’s experience and understandings of it*. This concern is reflected in the phrasing of RQ1. However, this does not mean that nothing can be concluded about the phenomenon – on the contrary, the account

produced by the research participant can be analysed to reveal something very tangible and real about the subject-matter. IPA, its proponents explain, reflects upon the subject-matter from the perspective of a participant's engagement with it (Larkin, Watts & Clifton 2006). IPA has an idiographic focus, which in psychology means detailed examination of the research participant as a particular unique individual. Approaches that are empathetic, sensitive and responsive to the nature of the subject-matter are thought to yield richer outcomes (Larkin, Watts & Clifton 2006).

Focusing on a small number of cases (i.e. research participants), IPA is concerned with detailed analysis of convergence and divergence across cases, whilst also generating a richly textured analysis of each case (Smith, Flowers & Larkin 2009). Because of its interest in the lived experience of a particular person, IPA is concerned with 'giving voice' to the research participants (Larkin, Watts & Clifton 2006), through a contextualised discussion drawing on quotes from interview transcripts. But it is important to emphasise that IPA considers all attempts to understand other people's experience as "necessarily interpretative" (Smith, Flowers & Larkin 2009 p21). Consequently, IPA studies tend to involve a highly intensive and detailed analysis of the accounts of a small number of people (Larkin, Watts & Clifton 2006). These features of IPA are evident in my highly nuanced and in-depth discussion of findings vividly illustrated with quotes (see chapter 5).

At the critical-hermeneutic level of interpretation, IPA allows for the development of alternative narratives informed by existing theory to offer a deeper understanding of the participant's experience (Eatough & Smith 2010). The premise behind the critical-hermeneutic stance is that people may not be consciously aware of all the processes involved in their behaviour and experience (Willig & Stainton-Rogers 2010), and are thus unable to articulate them directly (Swim et al 2011) as I outlined in the introduction (see

3.1). An IPA approach can also include more pointed theory-led secondary research questions that use the data generated by the primary question as a lever to evaluate existing theories and models. This is not so much about testing a hypothesis but engaging with theory (Smith, Flowers & Larkin 2009 p48). This is the approach I have followed with the design of my research questions (see 2.8.2).

IPA does not state a single, closed theoretical assumption about how participants' accounts may be interpreted, and this openness makes it different to other qualitative approaches. The analyst has the opportunity to draw from a wide repertoire of analytic strategies, informed by prior experience and knowledge, and by theory (Larkin, Watts & Clifton 2006). IPA is described as a methodological framework to be used flexibly in accordance with the needs of the study (Smith, Flowers & Larkin 2009). This flexibility is a feature that I welcomed as it allowed me to integrate micro-discourse analysis informed by cognitive linguistics.

Constructivist grounded theory (e.g. Charmaz 2005) is regarded as the main alternative method to IPA (Smith, Flowers & Larkin 2009). But whilst grounded theory sets out to generate explanatory theory from a body of data that is large compared to IPA, IPA is likely to produce a more detailed and nuanced microanalysis of the lived experience of a small number of participants. However, an IPA study could lead on to a grounded theory study (Smith, Flowers & Larkin 2009).

### **Situated research**

IPA is committed to situating personal meaning in socio-cultural contexts (Eatough & Smith 2010). There are various ways of defining 'context', and in some literature (e.g. Clayton et al 2015b; Guthey, Whiteman & Elmes 2014; Shrivastava & Kennelly 2013; Elmes et al 2012) situating the person means situating the person in a physical place - what Clayton et al refer

to as 'person-in-place', however this definition is not the one used in this thesis. 'Context' here means a set of particular social relationships i.e. the person interacting with the organisation (what could be called 'person-in organisation'), and a particular set of cultural beliefs ('person-in-society'). This latter, a macro-social contextualisation of lived experience, has been argued as a valid level of analysis (Askegaard & Linnet 2011), theoretically informed and based on the researcher's theoretical insights. In this thesis, my interpretation of the macro-social context is informed by particular theory about the dominant cultural worldview as a root cause of ecological crisis, as outlined in 2.7. The person-in-organisation context is interpreted using Self-Determination Theory as the main explanatory frame.

#### **3.2.4 Reflexivity, emotion and intuition in research**

Entanglement of the researcher with the subject and with the sensemaking process is generally acknowledged in qualitative research methods literature (e.g. Denzin & Lincoln 2005; Easterby-Smith et al 2008; Cuncliffe 2011; Willig & Stainton-Rogers 2010). The dynamics of the interaction have a bearing on what the participant says and how the researcher interprets it, influenced by whichever cognitive frames are salient, as well as by any unconscious defences triggered in the encounter by uncomfortable material (Clarke & Hoggett 2009). Theories that apply to the research subjects must also be relevant to the researcher (Easterby-Smith et al 2008). Recognition of research as an engaged and entangled activity "invites and requires us to seek to account for these aspects in our researching and representations" say Marshall & Reason (2007 p369). Such a task involves surfacing, questioning and documenting our assumptions, suppositions, biases, values and feelings and reflecting on their role and impact in the research process, and examining researcher-participant relationships and the impact of these relationships on knowledge. Reflexivity is increasingly regarded as a necessary dimension of qualitative research as a way of ensuring rigour (Marshall & Reason 2007; Firestone & Dawson 1982), and is central to IPA

and psychosocial studies. For example, the capacity of the researcher to be emotionally receptive to the subject, to 'contain' a feeling and then use its energy to reflect on what the feeling communicates about the encounter and the phenomenon under question, is regarded as a key factor in the success of psychosocial research (Clarke & Hoggett 2009). In IPA, analysis of emotional content in both participant and researcher experience is recommended as it helps to (a) identify salient aspects of experience, and (b) situate interpretations within a social context in acknowledgement of the co-creation of knowledge. Lines of sameness or comfort between participant and researcher suggest a need for further critical analysis. From an organisational studies perspective, Weick suggests that the emotions researchers feel may have hidden value (1999; cited in Whiteman et al 2009). However, Whiteman et al (2009) find that although the significance of 'academic emotions' has been discussed in a variety of forums, the majority of narratives in organisational studies remain emotion-less. Analysis of our emotional experiences during research, they argue, can enrich organisational studies because the integration of emotions with thoughts may lead to new conceptual or theoretical insights.

A reflexive exercise post-interview could include the following:

- Reflect on interaction
- Capture what I felt and thought throughout
- What do I feel now as I write
- What themes piqued my interest
- Consider inter-subjective dynamics
- What do I believe I brought to the interview
- How might I have influenced the data produced

(adapted from Hefferon 2013)

Reflexivity is understood to be an incomplete representation of the factors influencing the researcher's decision-making, for example with respect to the role of intuition in analysis (Cutcliffe & McKenna 1999). As Firestone & Dawson (1982) point out, intuition is a private process, and how it is used in analysis is difficult to describe and understand. However, as

Marshall & Reason (2007) argue, “realising that there are limits to any account we can give does not offer us licence to give no account” (p370).

I mentioned above that intuitive analysis is rejected in objectivist research but accepted in IPA. Remembering that IPA is concerned with lived embodied and situated experience, this makes sense because intuition involves embodied perception and cognition (Marks-Tarlow 2014). Jung defined intuition as ‘perception via the unconscious’ and it is commonly understood as a ‘gut feeling based on experience’<sup>15</sup>. Pagis (2009) reminds us that discursive reflexivity is not the only medium through which reflexivity can take place, describing ‘embodied self-reflexivity’ as another form that anchors the self in the reflexive capacity of body sensations. In this approach body sensations are understood to carry meaning: they are guides to psychological states and emotional arousal. This is consistent with Self-Determination Theory, which regards physical body sensations, feelings and emotions as sources of information (Deci et al 2015; Ryan et al 2006 cited in Deci et al 2015), as I discussed in the preceding literature review section (see 2.3.3, 2.5.4). According to Kahneman (2002) our judgements are normally intuitive, however we can modify them with a more deliberate and controlled mode of operation.

### **3.2.5 Conclusions from philosophical considerations**

In this section I have explored various approaches and schools of thought in order to understand the philosophical position of IPA within a broader domain.

To my knowledge IPA, cognitive linguistics and psychosocial research have not been brought together in a single study, but as I show in this chapter these approaches are highly compatible. Their shared focus on lived, embodied and situated experience enables me to enquire into research participants’ lived experience and gain insight into psychosocial factors

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<sup>15</sup> This definition is from Wikipedia, which gives an indication of common usage

influencing how they enact pro-environmental values in their work of influencing environmental practices in their organisations. The flexibility of IPA allows me to analyse and interpret participants' accounts through the lens of existing theories. This flexibility and the shared focus make IPA and cognitive linguistics philosophically coherent and appropriate for addressing my research aims and questions (see 2.8.3).

Smith, Flowers & Larkin (2009) advise that the prime reason for choosing IPA over any other qualitative method is because it is consistent with the epistemological position of the research question. Provided the researcher can access a "reasonably rich and reflective level of personal account" (p46), the assumption in IPA is that the data should be able to tell us something about the participant's involvement in and orientation towards the world and how they make sense of this. I would add that it is not just consistency with the epistemological position of the research question that matters, but also the personal motivations and concerns of the researcher. I outline below how IPA and psychosocial perspectives are consistent for me personally.

Firstly, the concern in IPA to 'give voice' to the research participants seems consistent with a research study that is personally motivated in part by a concern for social justice and that seeks to catalyse shifts in how we relate to each other and the rest of nature (see 1.1.2). And as I explain later (see 4.2.6) holding debriefs with the participants to share the findings and to hear their response was important not just as a credibility check but also for ethical reasons.

Secondly, as a mindfulness practitioner I find the emphasis in IPA and psychosocial research for the researcher to attend to their own subjective experience, plus the recognition of embodiment and intuition as a valid part of the research process, to be personally

congruent. It was important for my sense of inner coherence to be able to bring my whole integrated self to the process - it enhanced my sense of autonomy (see 2.3.3), and this undoubtedly contributed to maintaining my psychological wellbeing in what was a challenging complex study.

IPA is also compatible with the other theories I draw upon in my research. An approach that includes intuitive and mind-body integration is consistent with Self-Determination Theory as I have just indicated above, and also with theories on embodiment. The literature on disembodiment as a mirror of the human-nature hyperseparation regards such dualism as a root cause of ecological crisis (see 2.4.3, 2.7.2). In modelling mind-body integration as best I could, in my research I have to some extent been the change that I wish to see in the world - as Mahatma Gandhi may or may not have counselled.

### **3.3 METHODS**

Having provided a justification for adopting Interpretative Phenomenological Analysis (IPA) and integrating it with cognitive linguistics and a psychosocial perspective as an appropriate and coherent framework for addressing the research questions, I turn now to consider methods for generating, analysing and interpreting data. In search of guidance for designing my study I looked to the methods used in:

- IPA
- Psychosocial research
- Cognitive and ecolinguistics
- Research relating to human responses to ecological crisis, including psychological threat
- Identity research in organisational studies with corporate sustainability specialists

At the same time I heeded Marshall & Reason (1998 p37) advice that “methods cannot be copied, they must be creatively developed with subtle attention to suit particular individual and organisational contexts”.

### **3.3.1 Generating data**

#### **IPA**

As noted previously, IPA provides a framework to be used flexibly to suit the needs of the study. The main method used in IPA is semi-structured interviews, with diaries and focus groups also sometimes used (Larkin, Watts & Clifton 2006). A reflexive diary written by the researcher is recommended. Research participants are selected on the basis that they grant access to a particular perspective on the phenomena under study: this is known as ‘purposive<sup>16</sup> homogenous sampling’.

#### **Psychosocial research**

Psychosocial research includes methods such as free association in an attempt to get round the limitations of descriptive and rational analyses to explain experience. Dream analysis and visual methods may also be used (Clarke & Hoggett 2009; Lertzman 2015).

#### **Cognitive and ecolinguistics**

In linguistics, the corpus of text to be analysed is determined according to the focus of study, and could include organisational documents, advertising, news media and political communications as well as interview transcripts.

#### **Research on human responses to ecological crisis**

Qualitative psychological studies of how people experience and make sense of climate change and other environmental change processes have used focus groups (e.g. Stoll-

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<sup>16</sup> Purposive: done with a purpose

Kleemann et al 2001) and in-depth semi-structured interviews (Norgaard 2006) and unstructured free-associative interviews Lertzman 2015). In one study participants were selected based on their responses to an online survey that was designed to gauge levels of environmental concern, engagement, knowledge of issues and verbal acuity (Lertzman 2015).

### **Identity research in organisations**

With regards to the organisational studies research discussed in the literature review:

Wright, Nyberg & Grant's (2012) study of the identity of corporate sustainability specialists engaging with climate change used semi-structured interviews and documentation from the research participants' organisations such as sustainability strategy documents, internal communications, submissions to government inquiries, press releases and media coverage. They explain that these texts allowed them to gain a more detailed understanding of the broader organisational context and the dominant discourses with which respondents interacted. Meyerson & Scully's (1995) work on tempered radicals in organisations drew on formal interviews, informal conversations, first-person accounts from related literatures and descriptions of tempered radicals in the popular press. They also weave personal narrative into their writing.

### **Implications for my study**

Semi-structured interviews and diaries are standard methods, and the inclusion of organisational documents seems useful for gaining insight to dominant discourses in the organisation.

### **3.3.2 Analysing and interpreting data**

#### **Interpretative Phenomenological Analysis**

IPA offers a framework for analysing data whilst also emphasising that these stages are not meant to be rigidly followed and may be iterative (Smith, Flowers & Larkin 2009). IPA acknowledges that these stages are not remarkable compared to other qualitative methods: the difference is in the philosophical approach as described above. The stages are shown in Table 3.1 below.

With regards to stage 3 exploratory coding, although IPA uses the term 'descriptive' it does not mean there is no interpretation happening in answering the descriptive questions, as has been explained earlier (see 3.2.3). Exploratory coding involves looking for metaphors and 'interesting phrases', but IPA does not specify which theory or method to apply in identifying and analysing them.

IPA recognises that conceptual coding inevitably draws on the analyst's own experiential and professional knowledge where their pre-understandings and their newly emerging understandings of the participant's world are in dialogue, and there is a distinction to be made between understanding the text and understanding the person (Smith, Flowers & Larkin 2009). Easterby-Smith et al (2008) say that in order to understand a particular text, the researcher should try to understand the context within which the text is written.

Fig 3.1 IPA stages of analysis (from Smith, Flowers & Larkin 2009)

Stage 1	Verbatim transcription of interview	
Stage 2	Initial encounter with the text, several close and detailed readings	
Stage 3	Line-by-line exploratory coding. Exploratory coding involves asking descriptive, linguistic and linguistic questions.	<p>Descriptive Qs</p> <ul style="list-style-type: none"> <li>- How can this sentence / phrase / idea be summarised?</li> <li>- What experiences are being described and claimed by the participant?</li> <li>- What are the key features of those experiences for the participant?</li> </ul> <p>Linguistic Qs</p> <ul style="list-style-type: none"> <li>- How is the participant saying what they are saying (hesitant, forceful, stumbling)</li> <li>- Is the participant shifting tenses or pronouns in their speech, what might this mean</li> <li>- Has the participant used any metaphors or interesting phrases?</li> </ul> <p>Conceptual Qs</p> <ul style="list-style-type: none"> <li>- What is this person trying to say</li> <li>- What is going on here</li> <li>- What is underlying this</li> <li>- What do the experiences appear to mean for the participant</li> <li>- So what (what = the impact of what is said)</li> <li>- What does X mean, what does Y mean</li> <li>- What is missing or not being said</li> </ul>
Stage 4	Identification and organisation of initial themes on case-by-case basis	From the exploratory coding notes, the analyst identifies salient and recurring themes that seem to capture the essence of phenomenon. The analyst may draw upon existing theoretical concepts to assist the development and elucidation of themes (Larkin, Watts & Clifton 2006).
Stage 5	Clustering of initial themes into emerging themes	Associated salient themes are then clustered together into emerging themes
Stage 6	The emerging themes are further refined and condensed and then are clustered into higher order (super-ordinate) themes.	
Stage 7	Cross case analysis performed	The analyst looks for similarities and differences in emerging and higher order themes across cases
Stage 8	Written narrative constructed	

### **Cognitive and ecolinguistics analysis**

Cognitive and ecolinguistics have slightly different but also overlapping sets of concerns in analysis. Qualitative and quantitative methods can be used, although even the quantitative methods that involve use of computer software to statistically analyse patterns of words and compare results with other selections of similar text or with a national corpus, still draw on interpretative ability and judgement to interpret the results (Blackmore & Holmes 2013).

Ecolinguistics critiques discourses for the way in which they encourage ecologically beneficial or destructive behaviour (Stibbe 2013; 2015). In ecolinguistic analysis, judgements have to be made about what is and what is not 'ecologically destructive'. This judgement is informed by the linguist's environmental philosophy, which may or may not be made explicit.

Cognitive linguistics uses frame and metaphor analysis. It is concerned with analysing cognitive frames that are used in the text, and analysing the effect these structures might have on how people think about and act on the broader issue under enquiry. Frame analysis can contribute to the deconstruction of cultural narratives. Frame analysis and metaphor analysis are often combined because as previously explained (see 2.6.1) metaphors are a framing device that project a source domain of human experience onto a target domain. According to Schmitt (2005), there is no single systematic method for 'extracting' interpretation. For this reason he calls frame analysis an applied art. But this label does not only apply to frame analysis because discourse analysis more generally has been regarded as having an "important element of craft skill" (Potter 2011 p7). According to Brewer (2015), the methods of some frame analysis researchers is proprietary, and is not disclosed or subjected to peer-review process because of the usage of these methods in commercial consultancy.

Because of this lack of detail and the ambiguity about methods in the literature, I elicited the analysis process used by Paul Chilton professor emeritus of linguistics through a series of conversations in person and by email (Chilton 2015). I describe and explain his process below.

Frame and metaphor analysis involves several close readings of the whole text, followed by detailed micro-discourse analysis where the text is marked up sentence-by-sentence. The close readings of the whole text help to see the text as a 'holistic construct', which as Johnston (1995 p221-222) explains is important because the text is the "central empirical referent in micro-discourse analysis, and its integrity should be maintained". It is a largely intuitive process and the analyst would also be observing their own reactions to a text, in iterative readings that become progressively more detailed. With regards to mark up of the text, the precise nature of the mark up depends on the particular focus of interest, and the mental model of the analyst. The analyst looks for trigger words that bring a certain source frame to mind. An example is the metaphorical expression 'spend time'. 'Spend' is the trigger word activating the source frame 'money' (we spend money) so time is conceptualised in terms of money. The conceptual metaphor is TIME IS MONEY: the source frame of money has been projected onto the target frame of time (see 2.6.1 for more explanation of frames and metaphors). After mark up, the analyst then looks for patterns and connections of similarity and difference with other words and contexts, both in the surrounding text and in cultural structures in which these meanings are embedded. Using abductive reasoning, the analyst draws conclusions to explain their findings and the implications for their area of interest. These methods involve interpreting the meaning of words through accumulated intersubjective phenomenological awareness and knowledge. Interpretation is necessarily subjective but meanings can be crosschecked with other speakers of the same language. Indeed, when we use language to communicate, intersubjective agreement is already presupposed.

The use of frames and metaphors is often unconscious (Lakoff & Johnson 1980) and trigger words or cues are not always immediately obvious - presuppositions and modal expressions for example (Crompton 2010), so metaphors may be easily overlooked in a text. Linguists and discourse analysts have trained themselves to notice and to do the analysis drawing on accumulated experience of observations and application of theory. Deignan (2005) advises establishing consistent procedures for spotting metaphors. An assumption with frame and metaphor analysis is that metaphor use is not arbitrary and that something may be inferred about how the speaker conceptualises their world by their use of particular terms. However, Deignan (2005) warns against overgeneralising based on limited linguistic evidence, asking us to remember that choice of language is partly constrained by the conceptual structures shared by members of the speaker's community.

Cognitive linguistics approaches to explore sense making are not commonly used in organisational studies. Grant et al (2004 p23) report that the organisational discourse literature "exhibits a tendency to shy away from the cognitive aspects of words and their meanings in organisations" and so cognitive approaches are relatively undeveloped. An explanation offered by Marshak et al (2000, cited in Grant et al 2004 p23) is that there is a dominance of researchers with organisational sociology rather than psychology backgrounds. This 'dearth' of cognitive research leads Grant et al to echo Marshak et al in calling for more studies of organisational discourse that examine the "psychosocial origins of organizational texts, narratives and meanings, which lie beneath the subtext of social interaction" (p24).

### **Analysing psychological threat**

The coping and defence literature describes studies that use interview, storytelling (especially for children), direct observation and surveys to understand how stress brought on

by psychological threat affects people. However, Cramer (1998; 2009) observes that there is inconsistency in identification of coping mechanisms and lack of agreed-upon criteria to decide what is and what is not a coping strategy. Skinner et al (2003) also find little consensus about how to conceptualise or measure coping strategies. They report that in the more than 100 category systems examined, no two included the same set of categories. I had a similar experience with the literature on psychological threat and ecological crisis, and this led to me to develop a working framework of defence mechanisms and coping strategies compiled from various sources that I used to make sense of the constructs for myself and to guide analysis (see Fig. 2.8 in 2.5.3). Identifying defences and coping strategies seems to be a similar task to identifying metaphors and frames in that it relies on intersubjective awareness, experience and knowledge. Lertzman (2015) used thematic analysis in her study of how people experienced and made sense of local environmental issues, but notes that micro-discourse analysis of interviews would be a useful investigation.

### **Implications for my study**

There seems to be quite a lot of flexibility in how to analyse and interpret a text in IPA and cognitive and ecolinguistics. Intuitive, experiential, intersubjective and professional knowledge can all be drawn upon by analysts (Firestone & Dawson 1982; Smith, Flowers & Larkin 2009). As I have already explained, being able to bring these forms of knowledge to my research is important to me (see 1.1.2, 3.2.5). Sensitivity and responsiveness to the subject-matter, which may arise from such knowledge, is considered critical in IPA research for yielding rich outcomes (Larkin, Watts & Clifton 2006).

In ecolinguistics, the analyst's personal environmental philosophy informs the judgements made about discourses as environmentally beneficial or destructive. I have made my environmental philosophy explicit in the introduction to this thesis (see 1.1.2).

### **3.3.3 Trustworthiness**

Lincoln and Guba (1985) described four general types of trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability.

Procedures to enhance trustworthiness include coding consistency checks, team analysis, peer debriefings and stakeholder checks (Thomas 2006). Stakeholder checks are where research participants and others with an interest in the research comment on the research findings, interpretations and conclusions (Erlandson et al 1993 p142), which can be used for enhancing the credibility and hence trustworthiness of findings. Potter (2011) also suggests checking that participants 'orient to claimed phenomena' as a way to evaluate adequacy of an analysis.

Smith, Flowers & Larkin (2009) consider how validity and quality can be assessed in IPA, with respect to Yardley's (2000) four criteria of sensitivity to context, commitment and rigour, transparency and coherence, and impact and importance. I now discuss each criterion in turn, based on Smith et al's suggestions:

#### **Sensitivity to context**

In a good IPA study, sensitivity to context is demonstrated through awareness of existing literature, and in the approach to interacting with research participants: showing empathy, developing rapport, recognising interactional difficulties and recognising and negotiating power dynamics. Such an approach, the authors state, helps obtain good data (p180).

Sensitivity to context continues in the analysis process through close engagement with the details and particularities of the individual research participants' experience (idiographic focus). In the writing of the findings, sensitivity to the context manifests in grounding analytic claims in the data, and so a good IPA study will have "a considerable number of verbatim extracts from the participants' material to support the argument being made, thus

giving participants a voice in the project and allowing the reader to check the interpretations being made” (p180). Interpretations are presented as possible readings, with general claims offered cautiously.

### **Commitment and rigour**

There is an expectation in IPA that commitment will be shown in the degree of attentiveness to the participant when collecting data and the care with which the analysis is carried out (p181). Rigour refers to the thoroughness of the study, and the expectation would be for the sample to be carefully selected to match the research question, and that the sample is relatively homogenous (i.e. sharing the same type of experience). Thorough and systematic analysis, idiographic engagement, and moving beyond simple discussion to interpretation are also expected. Each theme should be supported with quotes from participants.

### **Transparency and coherence**

Transparency refers to how clearly the research process is described, as well as showing how interpretations are made from the data by including quotes. Because coherence is judged in the mind of the reader, the authors suggest asking questions such as: does it present coherent arguments? Do the themes hang together logically? Are ambiguities or contradictions dealt with clearly? (p182). Coherence can also apply in terms of the fit between the research conducted and the underlying theoretical assumptions of the approach implemented. The lived experience of the participants should have a central focus in the thesis, in accordance with the phenomenological concern of IPA, and the writing should be nuanced so that the reader is aware that they are attempting to make sense of the researcher trying to make sense of the participant’s experience. Where mixed methods are used, how these have been drawn upon and mixed should be made clear.

### **Impact and importance**

The final criterion is whether the research tells the reader anything interesting, useful or important.

### **Relevance to my study**

My transdisciplinary use of relatively recently emerged research approaches of IPA, psychosocial studies and the 'embodied realism' philosophy of cognitive linguistics challenges the dominant epistemology of positivism and objectivism. This makes the knowledge claims of my research vulnerable to rejection from those with that mindset.

Credibility checks involving participants and peer debriefings are useful for helping enhance confidence in the trustworthiness of my findings. However, stakeholder checks with participants are not typically part of the IPA process. This might be because IPA has been predominantly used in clinical research particularly with regard to people's experience of illness (Smith 2011) and so participants may be deemed too vulnerable.

The criteria for validity and quality in IPA studies described above are a useful guide that, as the authors point out, needs to be flexibly applied because IPA is a "creative process" (p184).

### **3.3.4 Conclusions about methods**

In this section I have looked at methods for generating, analysing and interpreting data in IPA, cognitive and ecolinguistics, identity research in organisational studies with corporate sustainability specialists, and psychological threat research. As these theories underpin my research, I have used this literature to guide decisions about the methodology for my study.

With regards to generating data, semi-structured interviews and diaries are standard methods, and the inclusion of organisational documents seems useful for gaining insight to dominant discourses in the organisation.

There is a lot of flexibility in IPA and cognitive/ecolinguistics with regards to how to actually analyse and interpret a text. I draw upon the resources of intuitive, experiential, intersubjective and professional knowledge in my study. My personal environmental philosophy is stated explicitly in the introduction to this thesis (see 1.1.2).

Checking my analysis and interpretation with the participants and with peers is a useful strategy for enhancing the trustworthiness of what is an unusual and innovative study, and which presents a challenge to the epistemology of mainstream academic approaches.

## 4 RESEARCH PROCESS > FIELDWORK

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In the preceding chapter on methodology I presented a case for using Interpretative Phenomenological Analysis (IPA) as a framework for my study, and argued that integrating it with cognitive linguistics and psychosocial perspectives was philosophically coherent, and appropriate for my research aims and questions. The research methods for generating, analysing and interpreting data that I considered are ones that are used in these approaches.

In this section of the thesis I focus on describing my process of implementing the methodology from selection of participants to data generation, analysis and interpretation, explaining the rationale for the methods used, and outlining key learning and adaptations made during the process. Final conclusions about the process are provided. The section ends with a chapter contextualising the study in terms of assumptions made in the research, scope of the study, strengths and limitations of the methodology, and ethical considerations.

Before I begin I include below a reminder of the research aims and questions, and provide a summary of the operational definitions I have used in my study of key concepts and terms.

### **Research aims**

Aim 1: To gain new insight into psychosocial factors affecting congruent enactment of pro-environmental values by individuals in their work to influence organisational practices

Aim 2: To generate knowledge and understanding that may be of practical use to sustainability professionals and environmentalists

### **Research questions**

- RQ1. What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?
- RQ2. What psychosocial factors can be identified that influence the participants' enactment of pro-environmental values in their work? How do these factors interact as processes?
- RQ3. What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?

The premise is that by enquiring into the lived experience of research participants, data is generated that can be analysed for psychosocial factors influencing cognition and behaviour.

### **Operational definitions of key terms**

Table 4.1 below outlines how I have operationalised key terms and concepts in my study. A glossary of definitions has been provided in the beginning after the Contents page.

Fig 4.1 Operational definition of key terms

<b>Term</b>	<b>Operational definition</b>
Adaptive response	Responses that are proportional and appropriate to the reality of ecological crisis, judged according to my personal environmental philosophy
Context	Particular set of social relationships (person-in-organisation) and cultural beliefs (person-in-society) that the participant interacts with. Interpretations are theoretically informed by Self-Determination Theory and environmental philosophy perspectives on dominant cultural worldviews
'Deep green'	Environmental ethic that holds that humans are part of nature, and nature has intrinsic value independent of its instrumental value to humans. Descriptive account, and Inferred from opinions stated in interview
Effectiveness	Perception of how successful in achieving desired outcomes (competency). Indicated by responses to interview questions such as: 'What are your desired goals? How well do you think you are doing? What helps and what hinders?'
Ecological identity	Sense of self as part of external world of nature, sense of connection with/integration of wild nature within the self. Responses to CNS (Connection with Nature Scale) items Descriptive account that indicates subjective felt sense of connectedness with non-human nature, and/or behaviours that indicate connectedness. Inferred from language used in talking about relationship with nature, and aspects as self such as emotions, intuition, instinct, physical body, the unconscious
Mindfulness and mindful awareness	Awareness of what is happening in present moment internally and externally (thoughts, emotions, body sensations, sensory perception) as measured by MAAS (Mindful Attention & Awareness Scale), and as inferred by descriptive account.
Motivation	Driving force that initiates and directs behaviour. Indicated by reasons given for why they are doing/not doing something, and as inferred by use of language e.g. 'should'
Pro-environmental practices	Policies, strategies and actions that aim to have beneficial consequences for the natural world e.g. mitigate climate change, prevent or reduce loss of species and habitats; reduce waste, pollution and use of natural resources; conserve or enhance biodiversity
Pro-environmental values	Self-transcendence values and intrinsic goals. Indicated by expressions of concern for nature and desire to protect and enhance it
Psychological threat responses	Descriptive account or use of phrases indicating methods used consciously/intentionally or unconsciously/unintentionally to help relieve stress, anxiety, tension brought on by threat response
Salient cognitive frames	Conveyed through repetition or emphasis placed on particular words, or nonverbally through body language
Salient identity	Indicated by descriptive account of sense of self, and by repetition of or emphasis placed on particular identities

## **4.1 RECRUITMENT AND SELECTION OF PARTICIPANTS**

### **4.1.1 Participant criteria**

I identified the following key criteria for the study sample:

1. I wanted to find out about the experience of people currently working in organisations with formal roles that involve influencing environmental decision-making in policy, strategy and/or practice<sup>17</sup>.
2. As I was interested in factors influencing enactment of pro-environmental values, participants would have to hold strong pro-environmental values and identity.
3. Participants with propensity and willingness to be mindful would be able to give me richer accounts of their subjective experience including physical sensations, emotions and thoughts. This is the ‘verbal acuity’ that Lertzman (2015) also used as a selection criterion for her study (see 3.3.1).

These criteria set the conditions of purposive homogenous sampling, in line with the IPA framework discussed in the previous section (see 3.3.1) (Smith, Flowers & Larkin 2009). This means they have been selected on the basis that they grant access to a particular perspective on the phenomena under study, namely the perspective of an individual oriented to pro-environmental values. The phenomenon under study is their experience of working to influence organisational practices.

### **4.1.2 Recruitment process**

I used a variety of local, national and global marketing channels to recruit participants in order to reach a wide number of sustainability professionals:

- Professional bodies membership mailing lists e.g. NW Sustainable Business Network
- Sustainable business social networks e.g. LinkedIn groups
- Twitter and Facebook posts
- My website
- My personal and professional contacts

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<sup>17</sup> I refer to such people in the thesis as ‘sustainability professionals/managers/leaders’

The recruitment text emphasized I was looking for individuals who cared about nature and were currently in roles with decision-making authority in their organisations with regard to environmental policy and strategy. It stated it was an inquiry into their experience of influencing their organisation with respect to environmental decision-making, with an interdisciplinary approach. Confidentiality and anonymity was emphasised. I did not specify that participants needed to work in any particular type of organisation e.g. industry sector, ownership model or size. I included basic information about participation and provided a link to my website (Appendix 1) for further information and to download the Participant Information Sheet (Appendix 2). Interested individuals were invited to email me to arrange a time for an orientation conversation in person or by phone/skype. The purpose of this conversation was to discuss the research in more detail including the specifics of what their participation would involve in terms of minimum levels of commitment (2-hour interview, final debrief) and optional further involvement (diary, direct/indirect observation, access to relevant organisational documents).

In the recruitment materials and orientation conversation I deliberately did not give any information about the psychosocial factors, the particular theories underpinning the study, or my personal feelings about the topic. The reason for this was to lessen the chance of skewing the data (Lertzman 2015) by not loading prospective participants minds with expectations about me, and how I would be analysing their data - expectations that further down the line might also lead them to feel judged.

#### **4.1.3 Selection process**

Over the recruitment phase (Feb to April 2014) I received 15 enquiries. I discounted those who were not currently in relevant employment as per criterion 1. I sent the others a consent form (Appendix 3) and a link to an online survey (Appendix 4). The intention behind

using a survey was to gather responses from prospective participants to assess suitability against criteria 2 and 3 listed above: pro-environmental values and identity, and ability to give rich accounts of experience. This method echoes that used by Lertzman (2015) who also selected participants based on an online survey for similar reasons: gauging levels of environmental concern and verbal acuity. The survey I designed included two scales. I was not so much interested in the aggregate scores as the responses to individual items, so I did not use the scales in a quantitative way but the survey had the pragmatic advantages of a quantitative approach in that it was quick and easy to complete (Easterby-Smith et al 2008). All the respondents expressed self-transcendence values and/or intrinsic goals in the open questions, and had sufficiently high scores on the connection with nature and mindfulness scales to warrant selection.

Fig 4.2 Survey used to select participants

Survey item	Rationale for inclusion
Open question - reason for interest in taking part in this study	To ascertain whether they appear oriented to pro-environmental values (criterion 2)
Open question – reason for involvement in developing environmental policy and/or strategy in your organisation	Reflective, emotional, insightful responses are indication that may provide rich data as a participant
15-item Mindful Awareness and Attention Scale (Brown & Ryan 2003)	Self-report of trait mindfulness reduces risk participant is not able to notice and relate their direct experience (criterion 3)
Do you practice mindfulness meditation? (5 choices)	Find out experience of mindfulness meditation
14-item Connection with Nature Scale (Mayer & Frantz 2004). Added 1 item from Environmental Identity Scale (Clayton & Opatow 2004) and 2 items from New Environmental Paradigm revised scale (Dunlap et al 2000)	Indicator of sense of self as part of nature, and pro-environmental beliefs (criterion 2)

At orientation I also gathered the following information

- Organisation name and industry sector
- Gender and age
- Length of time in post
- Location

Five candidates did not complete the initial survey leaving me with eight participants as case studies. Of these, six ended up completing the full study: three males and three females. Ages ranged from 32 to 48. All had been in post for more than three years, except one who had three months previously joined the organisation as chief executive. The others were managers at various levels in the organisational structure with formal responsibility for environmental policy and/or strategy and practice. I gathered the information listed above in case any of these factors would be relevant in their account.

The organisations the participants worked in were local government, social housing, credit union and health care industries in the UK and Canada. I did not intentionally set out to study individuals working in these sectors, but as they are public or third sector organisations in these particular countries. These profiles provide more homogeneity in the sample: both the UK and Canada can be characterised as industrialised growth societies that have dominant economic frames about nature (Goatly 2007; Dunlap 2008; Dryzek 1997; Lakoff 2010), and public and third sector organisations share the characteristic of not providing services with the purpose of creating profit for the owners. Combined with the selection criteria explained earlier, the sample can be regarded as homogenous in that they grant access to a particular perspective on the phenomena under study: the experience of an individual oriented to pro-environmental values working in a formal role to influence organisational practices in industrial growth societies where economic frames about nature predominate. Examples of non-homogeneity are: participants who do not hold formal roles with respect to sustainability, or who are not motivated by pro-environmental values to do their job, or who work in a society with a different dominant cultural worldview. In other disciplines and methodologies there may be different understandings of what constitutes a homogenous sample. The sample size of six is regarded as sufficient in IPA (Smith, Flowers &

Larkin 2009) and with qualitative, non-computer-aided, micro-discourse analysis studies, because of the close detail analysis of each case.

I summarise the organisational roles and context in the following table. Pseudonyms have been used to protect the participants' anonymity, and other identifying information has also been removed.

Fig 4.3 Participant contextual information

<b>Pseudonym</b>	<b>Sector</b>	<b>Job title and role in organisation</b>
Rosemary	Local government UK (public sector)	Strategic Environment Manager Producing regional environmental strategy and influencing decision-making about how natural 'assets' are devolved to local government, in a context of severe cuts in public funding. Seeking to protect these 'assets' from 'irresponsible' decision-making of senior managers
Jay	Local government UK (public sector)	Ranger Conserving and restoring nationally important habitat in a context of major on-going organisational restructuring and job losses as a result of severe cuts in public funding. Seeking to ensure restructure does not adversely affect effective site management
Ash	Local government UK (public sector)	Sustainability Manager Delivering renewable energy programmes in the town and influencing decision-making about 'greening' the town. Seeking to reduce organisation's direct and indirect carbon emissions and increase 'green infrastructure'
Robin	Social housing UK (third sector)	Environmental Sustainability Officer Delivering energy efficiency programmes with social housing residents and influencing decision-making about building design. Seeking to reduce organisation's direct and indirect carbon emissions and development on greenbelt land and increase creation of wildlife habitats around their properties
Hazel	Healthcare Canada (public sector)	Energy Steward Leading programmes to reduce waste and energy use in organisation. Seeking to reduce organisation's impact through culture change
Heather	Credit Union UK (third sector)	Chief Executive Ultimately responsible for organisation's activities, working with Board to produce an environmental policy. Seeking to reduce organisation's direct impact and its indirect impact by financially supporting more environmental organisations

## **Reflections**

Given the timescale I was working with to recruit participants, this method of using a wide range of different channels worked well in attracting interest and securing the number of participants needed for the study. The sample selected were relatively homogeneous as they worked in similar sectors (i.e. public and third sectors), had formal roles in their organisations with regards to influencing environmental policy, strategy and/or practice, and expressed strong pro-environmental values. The sample matches Research Question 1, which together with the homogeneity demonstrates rigour in the research (see 3.3.3). With regards to national contexts, the UK and Canada are similar in that they are both industrial growth societies, as explained earlier. However, they differ in terms of national culture, laws, policies and so on, and this could be an argument for classing them as non-homogenous. However, given the environmental philosophy informing my research about cultural worldviews and economic frames about nature, I think my argument that the UK and Canada have similar cultural worldviews justifies the inclusion of both countries in the sample.

## **4.2 DATA GENERATION**

In the orientation conversation, I discussed and agreed the data sources for the study with the participants, and summarised the process in a written document that they were asked to check for accuracy. The aim of this relational approach was to build rapport and trust (Lertzman 2015), and to increase the likelihood that participants would remain engaged with the process.

Table 4.4 below summarises the methods chosen for collecting data. I follow this with an account of using each of these methods. An explanation of how I analysed and interpreted the data from each of these sources is provided in the next section (see 4.3).

Fig 4.4 Data sources

Data sources	Format	Rationale
2-hour in-depth semi-structured interviews	Audio recorded and transcribed verbatim	Obtain detailed account of experience, can probe deeper and follow emergent lines of enquiry (Smith, Flowers & Larkin 2009)
Participant diary of experience of significant meeting	Entries written shortly after important meeting by five participants	Record embodied awareness of the experience (Pagis 2009)
Researcher reflexive diary	Entries written shortly after each encounter and ad hoc throughout	Record my experience and reflections to ensure rigour and quality (Marshall & Reason 2007)
Indirect observation of participant	Audio recordings by two participants of a meeting with colleagues	Indication of organisational discourse and salient frames that participants are exposed to or are interacting with (Wright, Nyberg & Grant 2012)
Organisational documents relating to environmental policy, strategy or practice	Public online resources and documents, and internal documents e.g. meeting minutes, briefing notes	
Final debrief conversation	Audio recorded	Share theoretical framework and key findings with participants as a stakeholder check for credibility and trustworthiness of findings (Thomas 2006)

#### 4.2.1 Semi-structured interviews

An outline of the interview topics was sent in advance to participants (Appendix 5). The key topics were:

- Personal relationship with nature
- Views on the environmental situation
- Views on their organisation's impact on nature
- Experience of influencing organisational decision-making
- Experience of attending to body sensations, emotions and thoughts whilst participating in or running a significant meeting

I wanted to find out how they conceptualised their own relationship with nature as well as the current environmental situation for two main reasons of particular relevance to addressing the secondary research questions. Firstly, because they may give indications of psychological threat responses, and secondly so that their personal thoughts and feelings about the natural world could be compared with their (i) perceptions of how colleagues or the organisation as a whole thought and felt about the natural world, (ii) salient frames in organisational discourse as indicated in other data sources, namely organisational documents and indirect observation.

The participant account of their experience and their thoughts and feelings about the impact their organisation has on nature took up the bulk of the interview, addressing the primary research question. Their embodied awareness during a significant meeting ended up having relatively little time due to the time constraints of a two-hour interview. However, the diary entries provided information on this topic.

Interviews were conducted in locations selected by the participants that would provide appropriate privacy and quiet, which for interviews in person was a meeting room in their place of work during working hours. One interview was conducted by video Skype. All interviews were audio recorded with permission of the participant. I asked open questions, which in IPA is considered to be an inductive approach (Eatough & Smith 2010). See Appendix 6 for interview topics and example questions.

### **Reflections**

I found building rapport fairly easy with all the participants, although some went much further in expressing their personal thoughts and feelings than others and subsequently I felt closer to some than others. My reflexive diary shows that when I noticed the participant to

be relaxed or a bit nervous, I was often also feeling similar emotions (perhaps countertransference?) I felt very engaged in the encounters, I liked them and found interviewing them enjoyable, interesting and stimulating and also felt empathy when they talked about difficulties they were experiencing. In some interviews we laughed together a lot. I think this relational approach helped make the interviews more enjoyable for the participants too, and helped them feel safer to disclose personal information (Lertzman 2015). This approach is consistent with the criteria for validity and quality in IPA studies of sensitivity to context (see 3.3.3).

Over the course of the six interviews I grew more comfortable with the dilemma of how much of myself to give: there had to be some reciprocity to avoid damaging rapport, but I also did not want to influence them more than need be. I found I agreed with much of what they said with regards to the environmental situation if not always how they chose personally to respond to it. Awareness of my agreement and non-agreement helped me in the analysis phase to keep my interpretations non-judgemental.

There were a number of instances where I noticed the participant watching me closely for a reaction to what they were saying: looking for signs of agreement, approval or judgement perhaps. Mostly I was able to maintain an open and non-judgemental attitude, drawing on my mindfulness and coaching training. But there was one instance in particular where something said really affected me and triggered me into responding. I wrote afterwards:

*... at this point I feel so uncomfortable with his assumption 'you know what I mean' that I am onside, and at his lack of empathy, that I feel if I don't say something I am somehow colluding by my silence, I feel complicit. I don't like how he's talking about her, even if she was out of order. Why cant he understand what is going on for her? So I say: "its affecting everybody" to nudge him towards understanding this outburst as her reaction to extremely stressful situation that's been going on for months on end. Especially after what he's said about himself being 'at the end of his tether' and 'going snap' - which she clearly has. I feel sorry for her, why doesn't he? Perception is projection: I can be like that, uncaring. He responds with "Yes it really is yeah, it really is, it really has." will he be more empathetic now? No - he carries on, "So badly managed." and places blame back at management.*

I sometimes sensed they wanted to please me, to give me what I was looking for. This was sometimes conveyed via a direct question: *is this what you want?* But more often I intuited it from facial expressions and body language: an enquiring look, an eagerness, a neediness even. I made notes of these observations in my reflexive diary (see 4.2.3). I discovered by observing my emotional and physical reactions that I must be holding some fixed ideas of what I wanted the participants to talk about – I took feelings of surprise or frustration to be signs of this. But I wasn't always able to bring the expectation or assumption into full view. Of course I had chosen a semi-structured format so there were topics to be covered. An example is the interview with the chief executive who was not a sustainability specialist as the others were, but for whom environmental policy was part of the chief executive remit. As we will see in the Findings chapter, her experience was markedly different from the others in a number of ways, and at the time of interview I had some doubts about her inclusion in the study and whether it was going to be useful. However, I can see from my notes that I became less worried about not getting sufficiently rich or relevant data and chose instead to trust in the rigour of my process and have confidence that I would find interesting material to work with, perhaps just not what I was expecting. Letting go of that anxiety helped me be more fully present in the interview.

As a semi-structured interview format was used, on occasion I interrupted the participant to probe more deeply or to shift the focus to a topic I wanted covered before time ran out.

With the first interview this felt quite tricky as the participant spoke very fast and it was by video Skype, which perhaps made attending to cues a bit harder. With subsequent interviews I stated at the outset I might interrupt and explained why, which then made interrupting easier to do without worrying about it affecting rapport.

Easterby-Smith et al (2008) point out that theories that apply to participants also apply to the researcher. With regards to coping strategies for dealing with psychological threat, there was one particular point in the research process when my exposure to the facts of ecological crisis seemed relentless: I was either conducting or transcribing interviews on the subject, reading literature or talking about my research to people. It was everywhere, all the time. It was a very difficult process to go through but with my mindfulness and ecopsychology training and experience, I was able to engage with intense emotions of despair, sadness, grief, anger, frustration and anxiety – to just be with them and accept and honour their presence. However, whilst experiencing distress at the natural world being destroyed around me, I found I also experienced beauty, magic, awe, peace, hope and wonder when I attended closely to the particularity of the natural world. I wrote about these experiences in my reflexive diary, which also helped to process them. I think my capacity to hold these layers of strong positive and negative emotions made it easier for me to be emotionally receptive to the participant in the interview (Clarke & Hoggett 2009) and to hold without fear what was arising for them. This sensitivity to what was occurring in the present moment guided my judgement of when to persist with a line of enquiry and probe deeper, and when to let something alone and move on.

Using a semi-structured interview generated a lot of rich data specific to the research questions, in ways I could not have anticipated. Probing, even when driven by my own fixed agenda, resulted in interesting associations and disclosures that may not have arisen or been expressed without such probing. This shows that it's not just unstructured or free-associative interview methods that can produce these insights. And my participants, I noticed, tended to answer the question they wanted to answer, which was not always the question they had been asked.

The empathy and rapport I had with participants, and my attentiveness to them demonstrates sensitivity to context and commitment, which are criteria for assessing validity and quality in IPA research (see 3.3.3).

Ideally I would have conducted a 3 hour interview because there was so much to talk about or conducted two interviews per participant. However, I was conscious of not asking too much of the participants, especially those who reported being very busy and under pressure.

#### **4.2.2 Participant diary**

The purpose of the diary was to capture the participant's direct experience and interpretation of an important event such as an environmental strategy meeting. I was interested in the degree of embodied awareness and therefore briefed the participants in advance to attend to body sensations, emotions and thoughts that arise in response to what is occurring in the meeting. Participants were asked to record their observations soon afterward, whilst the experience was still fresh in memory. I received diary entries from five of the six participants.

An account of their direct embodied experience also allowed for the possibility of analysing their observations for indications of a psychological threat stress response. Stress as I have previously explained has physiological and psychological dimensions (see 2.5.2).

### **Reflections**

Diary entries were written with varying degrees of detail, and each approached writing the content differently despite all receiving the same briefing. One participant unfortunately lost part of her diary, so she tried to remember what she had written – which may or may not have been accurate. Submissions were on average one page long. Focussing the diary on one particular event worked well as it did not demand much of the participants. I could have suggested they include other reflections as an optional extra contribution, although one participant did this anyway.

#### **4.2.3 My reflexive diary**

I used the Evernote application to record my experience and reflections on the entire research process, not just the encounters with participants. I wrote as soon after each interview and debrief as possible, and also when doing the analysis of each case, using the prompts suggested by Hefferon (2013) for IPA (see 3.2.4).

### **Reflections**

It took some discipline to keep a diary of this type and be methodical about it. I found it was a useful outlet for expressing feelings as well for fulfilling its primary purpose of making me ask questions about my encounters with participants. I referred to this diary repeatedly in the analysis process to check whether, and how, emotions, thoughts, body sensations, intuitions that arose through my encounter with the participants were influencing my interpretation. From a phenomenology and mindfulness perspective, making these

responses visible by writing them down helped me 'bracket' them (Smith, Flowers & Larkin 2009), and this helped me approach the text with an attitude of non-judgement and openness (Kabat-Zinn 1990).

#### **4.2.4 Indirect observation - audio recordings of meetings**

Direct observation was discussed in the orientation conversation but rejected as a viable option by the participants, mainly because the logistics of arranging a meeting when all parties could attend would be tricky. Indirect observation through audio recordings of meetings was preferred because this was easier for the participants to arrange and meant they could schedule meetings with colleagues at short notice. Two participants audio recorded a meeting, with their colleagues' knowledge and consent. One did not have a relevant meeting coming up in the required timeframe and the other two either forgot they had agreed to explore the possibility of recording meetings, or decided after the orientation conversation and our written agreement that this was no longer an action they wished to pursue. The purpose of this indirect observation by audio recording was to gather information about organisational discourses and salient frames that the participants are exposed to or are interacting with (Wright, Nyberg & Grant 2012).

#### **Reflections**

With hindsight, I could have given the participants more time to select a suitable meeting to record. At the time I thought I might want to ask questions about the meeting in the interview, which meant the meetings had to be within that timeframe (about two to three months). However, it turned out that I didn't need to ask further questions, so I could have received recordings over a six-month period, if not longer even, because the interview and meeting analyses were not dependent on each other. It was certainly much easier for me to get audio recordings than to attend the meetings in person, which was a definite plus but it

did mean I could not observe non-verbal communication between the research participant and other members of the meeting.

#### **4.2.5 Organisational documents**

I gathered a number of environmental policy and strategy documents, minutes of meetings and website statements from all the participants' organisations except one. These were a mix of internal confidential and publicly accessible resources. The purpose of gathering these documents was the same as for indirect observation.

#### **Reflections**

It was an easy task to gather these documents both from five of the participants (even the confidential ones, clearly there was sufficient trust in our relationship) and from organisation's websites. Although not the same as direct observation of organisational discourse, it was a convenient proxy. The sixth participant planned to send me relevant organisational documents once they had been written. The organisation did not yet have an environmental policy (she had only just joined as chief executive and had the intention of making this a priority for the Board) but the policy was not produced within the timescale of this study.

#### **4.2.6 Final debrief**

From the outset, it was made explicit to participants that a final debrief conversation would be part of the minimum commitment for involvement in the study. This was an opportunity for me to share the theory underpinning the research and the key findings, and answer their questions about the study that I had felt unable to answer during the process out of a wish not to unduly influence participants.

I also wanted to find out what they made of the findings as a stakeholder check (Thomas 2006), and of the diagrams I had constructed representing my findings, as their response would be an indication of the viability of these diagrams as a useful tool with a wider audience.

If people are unaware of all the processes involved in their behaviour and experience, generating alternative narratives raises ethical issues of power and ownership. Offering the opportunity for people to become aware of these alternative narratives is a way to distribute power and ownership beyond the researcher. Furthermore, it offers participants the possibility for developing their self-awareness and learning. Part of the motivation for participants in taking part in the study was indeed to learn about themselves. For example, one participant wrote in the initial recruitment survey:

*Interested in the development of personalised approaches to how we take action on the environment issues. Would like to understand my agency in my role better to ensure i am maximising my ability to contribute.*

However, the participants were also keen to participate in the debrief just out of curiosity about how my PhD was progressing, which I took to be a sign of good rapport developed between us.

## **Reflections**

Such a debrief might be termed a 'triple hermeneutic' and it is not typically used in IPA as previously mentioned (see 3.3.3). I spent a couple months thinking and discussing the issues with my supervisors and other academics with experience of research involving self-enquiry. My department agreed to fund some external supervision sessions with a highly trained psychologist and psychotherapist to work through the complexities of conducting a debrief

that may involve touching on deeply personal issues, in recognition that this level of expert advice could not be provided internally. I found these extra sessions were extremely useful.

On the basis of all this advice, I emailed participants a summary of the theoretical framework in advance of the debrief meeting so participants could have time to read and digest the information and then bring any questions they might have to the debrief meeting itself. I also sent a new consent form and information about what the debrief would involve (Appendix 7). I started with the generic findings and then if asked gave some information about how I had interpreted their data that was not particularly sensitive. I only proceeded to give more personal information if they clearly indicated they were willing and happy to receive it. This approach worked well because it allowed participants to determine for themselves how personal the debrief would be. As it turned out we did not discuss any deeply personal areas.

One of the reasons for sharing how I'd interpreted their data was an ethical one: they could quite easily find out for themselves anyway just by reading the thesis or a paper, or attending a presentation, because they would recognise their quotes. But what was really interesting as I mention later (see 4.3.7) was that in the debrief some of the participants did not seem to remember exactly what they had said – a few commented that I was more familiar with what they said than they were. Having worked with their accounts so closely over the past year, this was probably true.

I found the debriefs useful as a credibility check: their positive responses gave me confidence that although my interpretation was just that – an interpretation – it was not wild analysis and I had succeeded in identifying key themes in their experience that resonated with them. I provide evidence of this in 4.3.7.

## **4.3 DATA ANALYSIS AND INTERPRETATION**

### **4.3.1 Interviews**

Each interview was transcribed verbatim, including notes of nonverbal elements such as laughter, sighs and pauses following the IPA framework for analysis outlined in the preceding methodology section (see 3.3.2). Over a period of six months I analysed and interpreted the transcripts for:

- Cognitive frames and conceptual metaphors
- Values, goals and identity salience
- Defences and coping strategies (psychological threat responses)
- Emotions and emotional management
- Mindfulness and embodied cognition
- Needs satisfaction, type of motivation, and vitality
- Conflicts and ambivalence

However, I should stress that this was a highly iterative process and some of these topics (particularly needs, motivation and vitality) were not included in the beginning but only later, once I had realised that themes were emerging that related to these aspects. This meant also returning to the literature to develop my understanding of the theory in order to better inform the analysis and interpretation.

In Table 4.5 below I summarise the rationale for each analysis focus.

I referred back to the original transcripts and my exploratory notes throughout, and at times re-listened to parts of the audio recording to check tone of voice, pauses, laughter etc. which alongside my own reflexive diary entries informed both my systematic and intuitive analyses of their accounts.

Fig 4.5 Analysis focus and rationale

<b>Analysis focus</b>	<b>Rationale</b>
Frames and metaphors	To gain insight into (a) how participants conceptualise their experience, as this has influence on behaviour (e.g. Lakoff 2010), and (b) how the organisation conceptualises the natural world
Values, goals and identity salience	Which type of values, goals and identities that are salient has implications for the kind of behaviours that are motivated (e.g. Crompton & Kasser 2009)
Defences / coping strategies	Strategies used to cope with psychological threat may be ecologically adaptive or maladaptive (Crompton & Kasser 2009; Weintrobe 2013)
Emotion, emotional management	What people feel and how they accept, express and regulate those emotions has implications for behaviour and for wellbeing (Weintrobe 2013; Rogelberg 2006). Emotion is central to understanding human experience (Smith, Flowers & Larkin 2009)
Mindfulness and embodied cognition	Cognition is embodied and situated (Lakoff & Johnson 1980; Varela, Thomson & Rosch 1993). Mindful awareness supports autonomous self-regulation and helps resist contextual pressures (Deci et al 2015)
Needs satisfaction, type of motivation, and vitality	The extent and manner in which basic needs are satisfied, and type of motivation, have implications for vitality and hence effectiveness (Deci & Ryan 2000; Ryan & Deci 2008). Type of motivation also has implications for the likelihood of a behaviour being performed, as well as how well it is performed.
Conflicts and ambivalence	How inner conflicts are negotiated has implications for effectiveness (Wright, Nyberg & Grant 2012). Inner coherence and identity commitment support values-congruent behaviour (Deci & Ryan 2000). Ambivalence can impede capacities for concern and repair (Lertzman 2015), but may also be tapped as source of strength and vitality (Meyerson & Scully 1995).

IPA allows for both intersubjective and intuitive analysis (Smith, Flowers & Larkin 2009). The level of detail involving a micro-discourse approach to analysis is extremely in-depth and time consuming because of the need to analyse almost every word. One page of transcript took me just over 2 hours on average to analyse and code for exploratory themes. The interviews were between 19 and 26 pages in length. This close and ongoing examination of the details and particularities of participants' accounts demonstrates both sensitivity to

context and rigour, which are two of the criteria for validity and quality in IPA studies (see 3.3.3).

Prior to working with the text, I compiled a working database of coping strategies with examples of indicative phrases and of cognitive frames with examples of trigger words, which I derived from the literature. This proved very useful in the early stages as I trained myself to identify coping strategies and frames and metaphors.

With the IPA stages of analysis as a guiding framework (see 3.3.2) and with the knowledge I had acquired about how to do micro-discourse analysis, I developed a procedure for analysis and interpretation of the interviews, which I describe below:

#### **Stage 1 - close reading of text**

Print interview transcript, number each line, several close readings

#### **Stage 2 - exploratory coding**

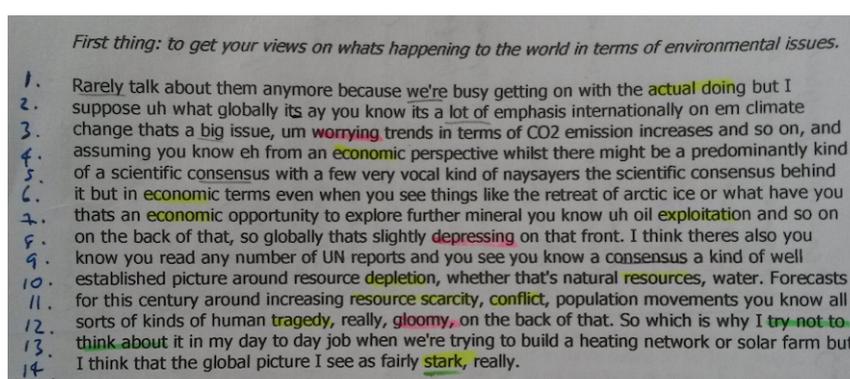
This stage is a very open process as almost every word was analysed for frames and metaphors (see 4.3.2 for example). It was also a nonlinear iterative process, because I returned to do further exploratory coding after doing some emerging coding. For example, the emerging coding stage showed recurring themes to do with effectiveness, relationship with colleagues, inner conflicts, and energy. From my initial reading of literature on Self-Determination Theory (SDT) I realised these themes could be interpreted through this lens in terms of competency, relatedness and autonomy needs and vitality. I therefore returned to the transcripts and checked for indications of these dimensions of experience. I also read more literature on SDT to be sure I was applying the theory correctly, and through this I realised that types of motivation was also an important factor influencing behaviour. So I

returned to the transcripts once again to check for indications of controlled and autonomous motivation.

I coded exploratory themes on a separate sheet, with transcript line numbers to aid tracking between transcript and coding sheet.

Phrases indicating coping strategies, frames and metaphors, values and identity salience; words expressing emotions and embodied awareness; needs, motivation and vitality; and conflicts and ambivalence in the account were highlighted in the transcript (see example below) and an analysis written up in the exploratory themes sheet.

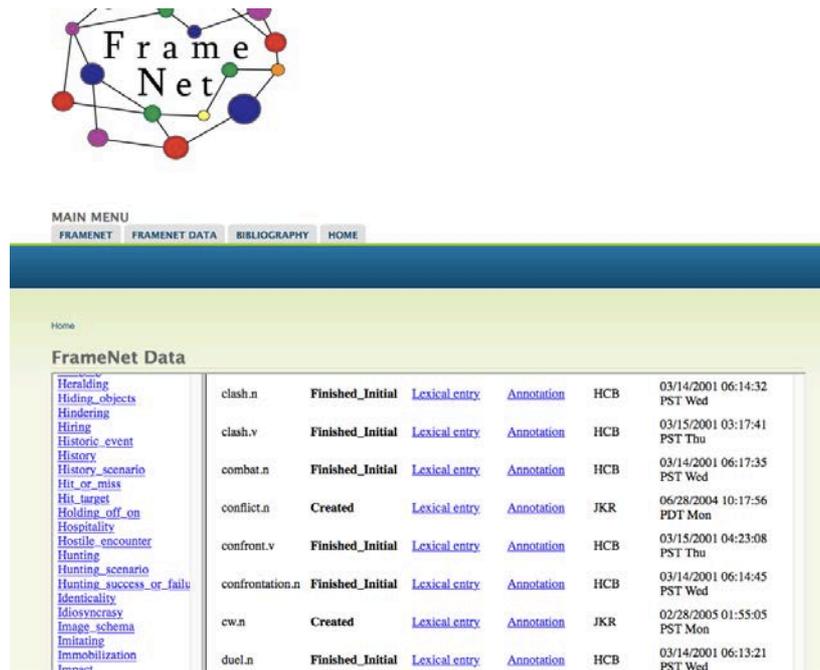
Fig 4.6 Example of transcript mark up



I used the following established intersubjective knowledge resources to guide identification of frames and metaphors and conduct micro-discourse analysis:

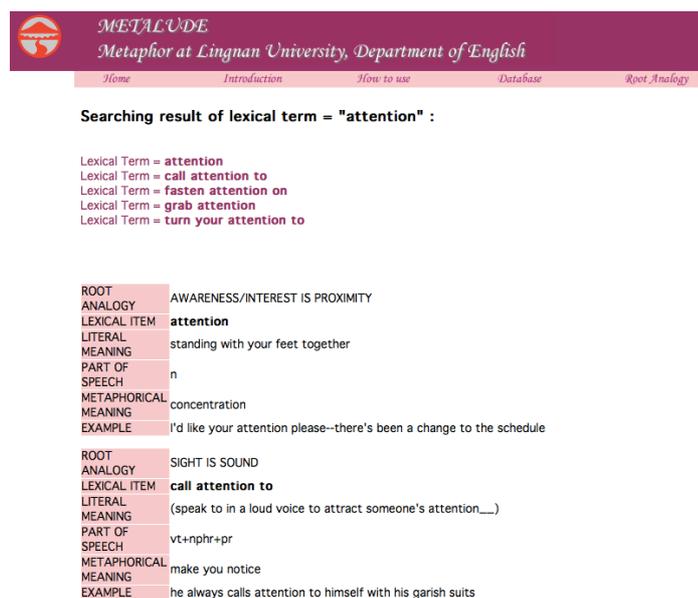
- IPA guidance for exploratory coding (see 3.3.2). This involved asking descriptive, linguistic and conceptual questions of the texts
- Dictionaries (e.g. OED Online and Etymonline)
- FrameNet database search. FrameNet is an online database of frames and lexical units created by linguistics researchers that allows the user to find frames associated with particular lexical units (words). Housed at the International Computer Science Institute in Berkeley California. There are 192 FrameNet related publications.

Fig 4.7 Snapshot of FrameNet database



- Metalude database. Compiled mainly by Andrew Goatly and hosted by Lingnan University Hong Kong, this is an online database of metaphors searchable by lexical unit (e.g. spend), source frame (e.g. money), target frame (time) or conceptual metaphor (TIME IS MONEY). Results page lists metaphorical as well as literal meanings, root analogy, and other related lexical terms (e.g. buy time) or root analogies/conceptual metaphors (e.g. MONEY IS LIQUID)

Fig 4.8 Snapshot of Metalude database



- Metaphorlist. This is a pdf document available online listing metaphors and their meanings created by Lakoff et al (1991)

Fig 4.9 Snapshot of Metaphorlist

EVENT STRUCTURE Harm

**HARM IS PHYSICAL INJURY**

Source Domain: injury  
Target Domain: harm

1. Experiencing harm is being in pain
2. Well-being is health/fitness
3. Restitution is healing

Grounding: Physical Injury is harmful to people

Note:  
Special Cases of Harm:

**Special case 1: Psychological harm is physical injury**

It was a traumatic experience.  
Her death hurt him.  
The accusation wounded her.  
He's mentally ill/fit.  
My pride was wounded.  
She recovered from the wound to her psyche, but scars remained.

**Special case 2: Economic harm is physical injury**

The stock market suffered a sharp dive today.  
Americans can expect painful cutbacks with the recession.  
My stock portfolio is very healthy.  
The market returned to health today.  
The symptoms of the recession have all but disappeared.

**Special case 3: Environmental harm is physical injury**

-45-

With the FrameNet, Metalude and Metaphorlist databases, I entered a trigger word from the text into the database to generate a frame or metaphor analysis. Trigger words (e.g. spend) are those that bring a certain source frame to mind (e.g. money). These resources helped me identify the likely entailment - which knowledge about the source domain was likely to be used by the participant in reasoning about the target domain, and I found it useful to compare results between the databases and to compare their results with my own thoughts. These databases are incomplete so many of the words or phrases in my texts were not found or did not yield useful results – if the surrounding context for the trigger word was different then the meaning generated by the database was not always relevant. As previously

mentioned, micro-discourse analysis (see 3.3.2) is an abductive process to arrive at a reasonable best guess from the information available.

In addition to these existing resources, as mentioned above I also referred to the working frameworks I developed derived from the literature of types of coping strategies and cognitive frames to aid (a) initial identification of coping strategies and cognitive frames/metaphors, and then (b) analysis of the constructs identified.

### **Stage 3 - intuitive identification of key themes**

Whilst doing exploratory coding I simultaneously listed key themes in participants' accounts in a separate document using intuitive analysis. Firestone & Dawson (1982) point out that intuition is a private process and how it is used in analysis is difficult to describe and understand, but for me it involved writing a short list of what struck me as being particularly salient for the participants e.g. isolation, pressure, prioritising goals. The intuitive insights came from noticing signals such as body language, tone of voice, hesitations, laughter and so on. I referred to these lists later in stage 6 to check them against the results of the systematic analysis.

### **Stage 4 – emergent coding**

I then used a more systematic, controlled and deliberate form of analysis to identify salient themes from my exploratory coding notes for each page of transcript and listed them separately. Once this was complete for each case I revisited these lists and looked for patterns, and then compiled a refined version of key themes for each case. See 4.3.2 for an example of emergent coding.

## Stage 5 – cluster emergent themes

This stage involved systematically going through the exploratory notes and emergent coding notes in a second cycle of analysis and re-clustered emerging themes using an Excel spreadsheet. I populated each theme column with illustrative quotes from each case. Theme labels included salient frames, coping strategies, needs, mindfulness, identity, emotion, nature relationship, and perceptions of organisation. A snapshot of the spreadsheet for one case is shown below.

Fig 4.10 Snapshot of clustered themes in spreadsheet

	ECONOMIC	RESPONSIBILITY	QUANTITY / MEASUREMENT	SCARCITY / EFFICIENCY	DEFEND / FIGHT	HARM	PRESSURE / SPACE	STRUGGLE / EFFORT	TIME	WORKING TOGETHER	POWER / CONTROL	OBJECTIVE / LOGIC
1	responsibility x4	responsibility x4	SIZE IS IMPORTANCE	don't know whether I've got it threatening	budget cuts	push x10	effort	Alugh (laughs) can see working with LUP	I've been previously far too knowledgeable			
2	responsibility x4	responsibility x4	not a small question	natural resources, are not off threat x2	devastation	space x9	difficult x8	been so long to grow a need to pull in specialist knowledge	information at the time			
3	responsibility x4	responsibility x4	allowing them and pass to you you know it's only a small	made x4	aggressive	cut x8	slow down, slower	hard x16	quick solutions	the people we have got into	national and global impact is that the land is	
4	responsibility x4	responsibility x4	division of assets	people being more confident	personal energy x6	struggle	time	squash	balance x13	need to slow down a bit	x12	Yeah so we're trying to do the best driver
5	responsibility x4	responsibility x4	I just get massively the the big stuff	renewable energy x3	get rid of it	caught	pressure x11	push	slowly about the little x1	we x245	not let my ego run away	add
6	responsibility x4	responsibility x4	at the expense of x2	we may not be able to answer the resource x5	defensive	hooked	gets pushed	conflict x4	keeping ourselves long	[ x653		disbelief
7	responsibility x4	responsibility x4	budget x8	cases so long to grow and within a few minutes...	safe	coherent	just got to do it just got stuck	political cycle	me x62			I've learned about critical
8	responsibility x4	responsibility x4	offset x2	invisibile	insulate	care, caring x8	care, wait for that	grapple x2	electronic cycle	my x79		finding language to talk to
9	responsibility x4	responsibility x4	stewarding our assets	have to x20	mediate	go through the pain	having time	try x48	over the next 5 years or there x18			how would we know for it
10	responsibility x4	responsibility x4	productivity	need to x23	argue	slow it up	I've got to do this I've got to struggle x4	they want it quick	we needed to engage other player to help us which	x1		it's y's got more educated
11	responsibility x4	responsibility x4	money x12	expansion of your own territory	conflicting, conflict x1	boasting myself up	I hope that, the strength, tricky	challenges for the future				why is it all of a sudden in
12	responsibility x4	responsibility x4	reducing our numbers	reducing our numbers	if one gets taken out, incise	show x2	being comfortable x8		we can do that overnight if it might be a 30 year plan to completely transform it	turning		comprehensive
13	responsibility x4	responsibility x4	spending money	endeavouring to extend myself to see where someone else is do	protected x3	cutting around the fact that document starts to difficulty	knowing that someone's being careful with it that hopefully means the system will start hold so it may take quite a long time	before our time, I think				the only way
14	responsibility x4	responsibility x4	profit	challenging our whole business	x22	And then trying to be forcing, forceful x2	personal battles	betting	I suppose I have taken some time to write some commentary about the impact	balance		not making the rig
15	responsibility x4	responsibility x4	investment	hope this happens to other people	GAME/COMPETITION	at the top of their game	big bag of laborious	challenges x4	what does come up in my job is about how much time you have got to spend to people not making the rig	I think it's the only, bring		reasonable degree of com
16	responsibility x4	responsibility x4	business case x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I need to have broad sh I would much rather, get the longer term		we've bought ourselves a bit of time on it			the ideas that I've chosen
17	responsibility x4	responsibility x4	capital value	inequality	they have more personal autonomy than the system I'm working, players	the idea that I've chosen to educate myself with I think one day one's going to lose, and one's going to lose	I can be quite forceful, confident x9		I'm under pressure, frustrating x11			we have thought enough
18	responsibility x4	responsibility x4	corporate x3	they have more personal autonomy than the system I'm working, players	inequality	the idea that I've chosen to educate myself with I think one day one's going to lose, and one's going to lose	I can be quite forceful, confident x9		there's a lot of juggling busy in the moment but prevents the achievement of you know I'm pretty sure	unresponsibility of assets		because I believe all that, right ok sets have a very
19	responsibility x4	responsibility x4	income	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
20	responsibility x4	responsibility x4	savings x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
21	responsibility x4	responsibility x4	money drain	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
22	responsibility x4	responsibility x4	merchandise	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
23	responsibility x4	responsibility x4	new x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
24	responsibility x4	responsibility x4	in the business of	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
25	responsibility x4	responsibility x4	business sheet	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
26	responsibility x4	responsibility x4	facilities x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
27	responsibility x4	responsibility x4	managing assets	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
28	responsibility x4	responsibility x4	bought x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
29	responsibility x4	responsibility x4	income generating	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
30	responsibility x4	responsibility x4	asset x9	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
31	responsibility x4	responsibility x4	new x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
32	responsibility x4	responsibility x4	VALUE	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
33	responsibility x4	responsibility x4	value x8	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
34	responsibility x4	responsibility x4	worth x2	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
35	responsibility x4	responsibility x4	balance sheet	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
36	responsibility x4	responsibility x4	some of it we need to hold to balance off the other things that other people work want to have)	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
37	responsibility x4	responsibility x4	balance x13	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
38	responsibility x4	responsibility x4	OWNERSHIP	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
39	responsibility x4	responsibility x4	responsible use of our natural assets as an economic driver	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					
40	responsibility x4	responsibility x4	our natural resources	the average person	inequality	they have more personal autonomy than the system I'm working, players	I can be quite forceful, confident x9					

## Stage 6 – re-cluster emergent themes into higher order themes

Created higher order themes by re-clustering emerging themes derived from the systematic analysis of stages 4 and 5, and compared them with key themes derived from intuitive analysis in stage 3. I found all the intuitive themes were mirrored in this cycle of analysis but there were also some additional themes that I identified. A higher order theme is a construct that applies to each participant but may manifest in different ways (Smith, Flowers & Larkin 2009). This clustering process in this stage was guided by the focus of the research questions, which meant I could narrow down the themes to those that were key in their experience of influencing pro-environmental decision making in the organisation.

### Stage 7 – write up case study

Wrote case study for each participant (approx. 7 pages long) using content from spreadsheet, emergent coding notes, my reflexive diary and intuitive analysis notes.

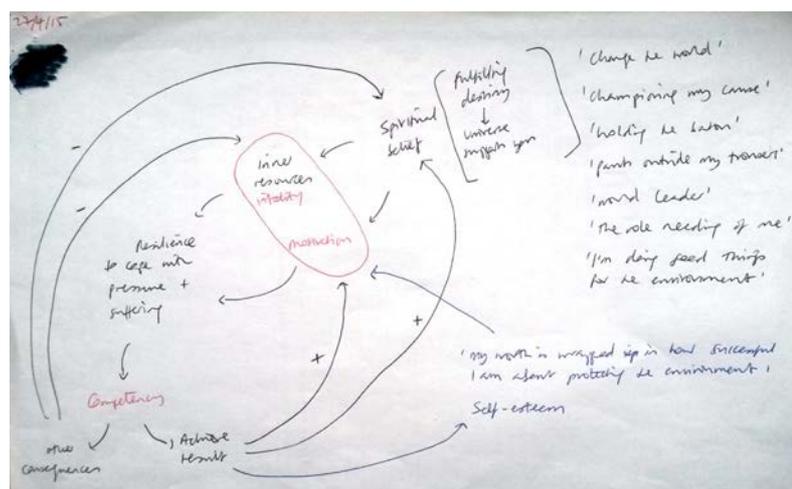
The format was: summary of role in organisation followed by a narrative by higher order theme that described how each theme manifested for the participant. These case studies have been converted into shorter pen portraits in this thesis (see 5.2).

### Stage 8 – diagramming single cases

Sketched diagrams of key features of participants' situations, as I interpreted it. Diagrams are a systems thinking tool for abstracting and representing aspects of complex situations in simplified form and showing the interconnectedness between different parts.

Diagramming as a process helped me with sense making and gaining clarification about feedback loops in the situation. The diagram as an object is a visual representation of findings that can also be used in communicating the findings. Two of these diagrams have been included in chapter 5 (see 5.9.3).

Fig 4.11 Example of sketch diagram



### **Stage 9 – write case summaries**

Created summaries from the case studies, checking back against spreadsheet to ensure nothing significant was missed. The format for this was a table with the themes in rows and the participant information in columns, which enabled me to easily see similarities and differences between the cases.

### **Stage 10 – cross-case analysis**

Performed cross-case analysis using information from the case studies and the case summary table. This involved determining where there were similarities and differences in the way that higher order themes manifested for each case, and identifying areas of convergence and divergence in exploratory themes. I checked back to the clustered themes spreadsheet (stage 5) for the entries for each participant to make sure nothing significant was missed. There was some refining of the phrasing of higher order and exploratory themes as a consequence of the cross-case analysis.

### **Stage 11 – diagramming across cases**

Sketched diagrams modelling relationship between key themes based on synthesis of interpretations across cases, and with reference to the diagrams produced in stage 8. This was an inductive process. These are included in the Findings chapter 6.

### **Stage 12 – construct themes table**

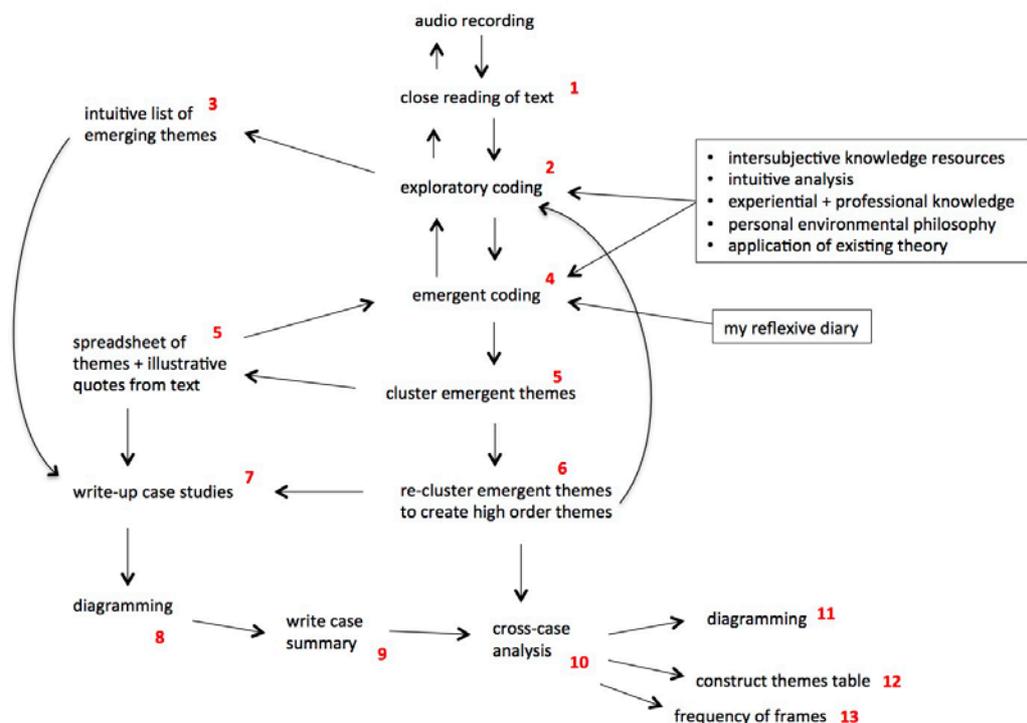
Created table of key higher order themes, associated sub themes (emerging themes), with illustrative quotes (see 5.3).

### Stage 13 – frequency of frames

Out of curiosity I counted frequency of particular trigger words as a way of assessing salience of associated frames. This was only intended to be indicative as I did not capture all the possible words or phrases that could be associated with a particular frame. Furthermore frequency of use may suggest salience but it doesn't necessarily - tone of voice and body language are also cues. It was interesting to compare frequency of particular words and frames between cases but I ended up only using one result from this rough analysis in writing up the findings in this thesis (see 5.9.5).

A summary of the stages in this procedure is shown in table 4.12 below, with the stages numbered. This shows the highly nonlinear iterative nature of the analysis process.

Fig 4.12 Diagram of analysis procedure



The following table 4.13 shows the development of theme clusters from the initial analysis that utilised particular theoretical lenses (stage 2), to the development of the themes

spreadsheet (stage 5), to the production of written case studies (stage 7) which were then condensed into case summaries (stage 9) and the final creation of higher order theme labels to represent the emergent theme clusters. I have colour coded the themes so that the connections can be clearly seen. However it should be remembered that this was not a linear process, and there were iterative cycles between stage 2 and 5 in particular.

Fig 4.13 Development of themes through analysis process

FOCUS OF ANALYSIS IN EXPLORATORY CODING (stage 2)	EMERGENT THEME CLUSTERS (stage 5)	CASE SUMMARY HEADINGS (stages 7+9)	HIGHER ORDER THEME LABELS (stages 6+12)
Identity	Identity	Salient identities	Identity salience
Mindfulness + embodied cognition	Mindfulness + embodied cognition	Mindfulness + embodied cognition	Mindfulness + embodied cognition
Emotion/feelings	Emotion	Emotions re work + re nature	Engagement with negative emotion
Values Goals Motivation	Motivational story	Motivational goal content	Motivational story
Coping strategies	Coping strategies	Coping strategies	Tensions in experience
Conflicts		Vitality - what maintains/depletes	
Vitality		Vitality	
Frames + metaphors	Nature relationship	Frames about nature	Relationship with nature
		Relationship with nature	
Frames + metaphors	Perception of organisation	Perception of organisation	Relationship with organisation
	Salient frames in interview	Salient frames in interview	
Needs satisfaction	Needs satisfaction	Needs satisfaction - how supported/undermined	

## Reflections

All the exploratory coding was written by hand. I'd injured my right hand at the time and found handwriting easier than typing. But I liked the physicality of writing by hand, I somehow felt closer to the text, and to the participant.

Attending so closely to the text analysing virtually every word for metaphors (see 2.6.1 and 3.3.2 for basis of metaphor analysis) was a very open approach to addressing the primary research question investigating participant experience. Although I had some ideas about possible influencing factors based on the literature which guided the initial exploratory coding, I did not know whether these would in fact show up in my analysis as salient nor how they would show up, so I was keen to catch as much as I could in this first round of working with the text. As it turned out, much of the analysis was not used in this thesis because it did not directly relate to the research questions.

My analysis of metaphors did sometimes result in different interpretations than those given in the knowledge resources I consulted. This was because I was committed to being guided by my understanding of the context within which the word or phrase was used, and because the knowledge resources are incomplete in the list of lexical units and the interpretations they offer.

The procedure I have described has involved numerous iterative cycles and a considerable amount of checking back with the audio recordings, transcripts, my reflexive diary and exploratory and emergent coding notes. This shows the care with which I engaged in the analysis process and my thorough and systematic approach in working through the stages. This demonstrates rigour and commitment (Firestone & Dawson 1982), which are criteria for assessing validity and quality in IPA research (see 3.3.3). I found each stage of the analysis procedure to be as important to my sensemaking as the next: I would not be able to say if any stages were not essential without conducting another study and doing it differently.

I would say the method I used involved creatively drawing on intersubjective knowledge to inform a highly nuanced, integrated intuitive and systematic micro-discourse analysis. I have

used both inductive and abductive approaches. The interpretations are generated with abductive reasoning, but using open questions in the interview involves an inductive approach. In the discussion of the findings I use inductive reasoning to infer generalised conclusions about psychosocial processes involved in the experience of influencing pro-environmental decision-making in organisations: these conclusions are represented with diagrams.

#### 4.3.2 Example of analysis process

I provide below an example of exploratory coding from a selection of transcript, and then follow this with examples of emergent and higher order themes to show my analysis and interpretation process in action.

Fig 4.14 Transcript extract

**Transcript**  
307. (it's only now that) I think my perspective on things and the **position** I'm in now will actually  
308. have any **traction** within the council, I've been previously **too far down** the food chain and  
309. **layered under** people who maybe **felt quite strongly** about stuff but weren't prepared to put their  
310. **head above the parapet**. Um **immensely frustrating** to not, I suppose I now feel the full  
311. **pressure** of having a job where there is **quite a lot** of expectation around it you know

The exploratory coding below in Fig 4.15 shows the openness of this stage of analysis – almost every word has been analysed and I have noted frames and metaphors, emotions, needs satisfaction and threat response, using the intersubjective knowledge resources listed earlier. However, not all of these analyses are represented in the emergent themes: I made a judgement about which were most pertinent to my research questions and aims by asking ‘*is this directly relevant to understanding the experience of working to influence and improve*

*environmental practices in the organisation, and to understanding what affects how the participants enact their pro-environmental values in this regard?*

Fig 4.15 Extract from exploratory coding notes

**Exploratory coding notes**

307. 'perspective' - visual reference, view; 'position' - spatial frame, place in journey, conceptual metaphor Career is Path

308. 'traction' - grip, physical; Transportation frame - move over surface without slipping; 'too far' - Distance and Quantity frame; 'down' - conceptual metaphor Down is Bad/Good is Up; 'food chain' - hierarchy of predators, metaphor creep from line 305. 'feed some information'. Agency and power.

309. 'layered under' physical position, covered - not visible. 'maybe' - tentative; 'felt quite strongly' - feelings, Intensity is Strength, feeling can withstand some force/pressure; 'but' - oppositional; 'weren't prepared' - implies there was choice. Unlike them, she is prepared to be vulnerable by expressing how she feels about 'stuff' or acting in accordance with her feelings? She is more courageous than these other colleagues?

310. 'parapet' - protective wall, Attack/Defence frame, Hostile Encounter frame; 'immensely frustrating' - intense emotion, indicates thwarting of goals/needs? Lack of support from colleagues. Doesn't finish sentence: 'to not' what? Absence is indication of what - suppression?

311. 'full pressure' - Quantity frame, exertion of force; 'quite a lot' - Quantity/Measurement frame. Expectation from org to deliver. Contrast of adverbs: 'immensely' and 'full' to 'quite' - coping strategy of reducing threat to

Fig 4.16 Emergent and higher order themes

Emerging themes:	Higher order theme
Positional power of new role (307, 308, 309), increases effectiveness of influence on organisational decision-making	Relationship with organisation
Feeling of frustration with situation (310)	Engagement with negative emotion
Thwarted needs satisfaction (310)	Tensions in experience
Feeling pressure from organisation to deliver result (311)	Engagement with negative emotion Relationship with organisation
Lack of support from colleagues (309-10)	Relationship with organisation
Expressing feelings is inviting attack (310), incongruence with organisation	Relationship with organisation
Reducing the threat to competency need fulfilment and/or self-esteem (311) as psychological threat response	Tensions in experience

As in all qualitative analyses, there is interpretation (Willig & Stainton-Rogers 2010). For example in the notes to line 309 and 310 in Fig 4.15 I have used abductive reasoning to infer that the participant regards herself as different from her colleagues with respect to speaking

out or acting in accordance with her feelings, and that support from these colleagues is lacking in the sense that they are not there with their *head above the parapet* with her.

The transcript text in Fig. 4.14 above is marked up with key words associated with the emerging themes (highlighted in yellow). I have selected these particular emergent themes because they represent the main 'objects of concern' (Larkin, Watts & Clifton 2006) for the participant in this extract. The higher order theme is an abstraction of the emerging theme, so by way of example in Fig 4.16, the emotion of frustration is clustered with the feeling of pressure and other emotions and feelings under the higher order theme label 'engagement with negative emotion'. The literature tells us that negative emotions and how they are expressed is a major psychosocial factor influencing behaviour (see 2.5.4). I drew upon this knowledge to assist the development and elucidation of themes. IPA recognises that analyst may draw upon existing theoretical concepts to assist the development and elucidation of themes (Larkin, Watts & Clifton 2006).

With reference to the research questions, the emergent themes represent key aspects of the participant's experience. In this short extract, I show how applying theories regarding cognitive frames, psychological threat response and needs brings particular insights. For example, frustration can be interpreted as an indication of thwarted basic psychological needs of competency, relatedness and/or autonomy. The literature suggests that organisational contexts can be supportive or undermining of needs satisfaction, and that how the participant deals with the frustration from thwarted needs (which is clustered under the higher order theme label of 'tensions in experience') will have implications for vitality and effectiveness. I used this theoretical concept in my analysis of her account, returning to the original transcript and exploratory notes to check for indications of strategies for dealing with frustration, and for indications of impacts on vitality and effectiveness.

This example illustrates the procedure that I followed for each interview transcript. As explained above, the emerging themes were clustered and refined and organised into higher order themes that were themselves clustered and refined in several iterative cycles. The final result of this process is seven higher order themes, each with a number of associated subthemes. I constructed a table showing each higher order theme and its subtheme illustrated with quotes. This is included in the Findings chapter 5.3. I provide an example below for the higher order theme 'Relationship with nature':

Fig 4.17 Example of higher order theme and subthemes with illustrative quotes

Higher order theme	Subthemes	Illustrative quotes
Relationship with nature	Multi-sensory	<i>You can hear everything and you can sort of smell outdoor smells and you can sort of touch the grass</i>
	Spiritual/transpersonal experience	<i>I feel completely and utterly at one</i>
	Restorative benefit	<i>It gives me a sense of calm and wellbeing</i>
	Motivational	<i>Just being outside reminding me that's why I come and do this stuff</i>
	Appreciate intrinsic value of nature	<i>When natural spaces are lost its sad that its not there as intrinsic value</i>
	Inconsistencies in sense of connectedness	<i>I have less relationship with it at work because I'm probably, I don't feel like I'm in it in some ways</i>

### 4.3.3 Participant diary

This followed a much simpler procedure than the interview transcript analysis because I was only focussing on coding for embodied mindful awareness. I looked for descriptive evidence of awareness of body sensations, emotions and thoughts, as well as descriptive awareness of what was going on for other people in the meeting. I then interpreted this information to assess in rough terms their level of awareness of each aspect of experience e.g. none, some, high awareness. As I have previously explained, mindfulness supports autonomous self-regulation and helps resist contextual pressures. I also analysed and interpreted their descriptions of direct experience for indications of psychological threat response.

## **Reflections**

This was a fairly straightforward analysis as I was only interested in making rough assessments of embodied awareness. The intention was not to produce a precise quantitative measure.

### **4.3.4 My reflexive diary**

Interrogating my experience to write the diary exposed some processes to conscious awareness, and this meant I then had some choice in what to do with it (Deci et al 2015). For example, in making my judgements overt in the exploratory coding notes, I could to some extent 'bracket' them in the interpretation. I think I have been able to generate insight into the dynamics influencing a reported behaviour without my approval or disapproval of the behaviour featuring in my interpretation of those dynamics.

## **Reflections**

I have discussed my reflexive diary already in 4.2.1 and 4.2.3. Further to that, I add here that I think my background experience as a mindfulness practitioner helped me to surface automatic unconscious habits of mind, and to notice embodied reactions as they were arising in the interviews. But writing the diary was only one part of the whole self-reflexive process and I didn't write down everything I was noticing.

The encounter with participants was packed full of split second micro-choices made in response to ongoing moment-by-moment embodied awareness. Most of what I noticed at the time I did not remember afterwards, there was simply too much to retain it all in memory so only some of what I noticed got written in the diary. But I was interested to discover that when I listened to the audio recordings I was transported back to being in that moment, and could feel again what I felt then, and I remembered those choice points – 'I'm

feeling an urge to push them on this, but is it relevant or is it my thing?’ Reading the transcript I asked myself, ‘why did I ask that and not this? What was that about?’ I didn’t always reach a conclusion. I also didn’t really *do* anything with what I wrote in the diary, it was just there, it became tacit.

I used my emotional responses and physical body sensations as feedback signals, and let feelings of unease and discomfort guide me in refining and re-writing interpretations.

Miles & Huberman (1994) say there are very few guidelines for protecting against self-delusion. Embodied reflexive awareness has a definite role to play based on my experience of doing this study. Internal and external supervision and the debriefs with participants were also invaluable in further checking the trustworthiness of my interpretations (see 4.3.7).

#### **4.3.5 Indirect observation - audio recordings of meetings**

I did not transcribe the audio recordings instead I made notes of frames and metaphors used about the natural world. This analysis did not reach the depth or breadth of the micro-discourse analysis of the interviews, mainly for reasons of managing my workload.

As I received recordings from only two of the six participants, it was not possible to do any cross-case analysis for similarities and differences but it did allow for focus on these two participants as more in-depth case studies. One of the recordings was of a meeting where the participant made a presentation so there was little organisational discourse to investigate. The other recording was of an environmental strategy meeting involving various colleagues and senior managers who did a lot of the talking, and so was rich in data indicating the organisational discourse and frames the participant was interacting with and possibly was being primed by. I interpreted these frames with regard to the implications for

motivating environmentally beneficial or destructive behaviour by the organisation, and this analysis is included in the Findings section (see 5.9.3).

### **Reflections**

I would have liked to be able to analyse more meetings but had to rely instead on organisational documents to fulfil my aim of identifying dominant frames in the organisation. However, it worked well to use one recording as a case study.

#### **4.3.6 Organisational documents**

As with the audio recordings, the focus of analysis was limited to frames and metaphors about the natural world. This purpose was to get an indication of the dominant discourse in the organisation that the participant is interacting with and is possibly primed by, and to them draw conclusions about the implications for pro-environmental behaviour.

### **Reflections**

The documents do give some indication of organisational discourse, but I was cautious in interpreting their priming effects as I didn't know and had no way of finding out how accurately they represented the everyday language used in the organisation to talk about matters impacting the natural world.

#### **4.3.7 Final debrief**

The debriefs were audio recorded but not transcribed. I made notes soon after of the main points made by the participants, referring back to the audio when required. As a credibility check, the debriefs were very useful and each participant stated they found them interesting and informative on both a personal and professional level. I used the diagrams (Figs 6.4 and 6.5) to talk through the findings. Afterwards I asked them how the findings resonated with

them, whether they could relate to what I had been saying or not. Extracts from the debriefs are provided below:

Ash: *I recognise quite a lot of what you said... I feel extraordinarily lucky really to have been in that position to do the job and it doesn't discount all the other stuff about it being hard and feeling conflicted and melancholic... the two don't sound like they should comfortably coexist but they do... I genuinely recognise all of, and the sense, and myself in what you said as well... And this, what I find really interesting, what I rarely do, we focus so much on what we do and very rarely on how we're doing it. And this really strikes me as quite a useful insight into how – its not telling you how to operate – but interrogating how you're operating. Does that make sense? It's quite useful, it really resonates with me*

Hazel: *The one thing that did pop up for me as you were talking about coping and expression and suppression of emotion and things around being green, I think that that's all true like... there's a tension for me in my organisation between the organisation as a whole – and I work in a phenomenally large institution – versus the management culture within the department in which I am situated. There is a huge gap between myself, my direct manager, the department I report to, and then the organisation. I could apply this (to each level). It sounds fascinating it really does I'd love to hear more and learn more about it. My instinct is that it totally makes sense. I think everything you've said makes sense. How people present themselves in one context or another there's always opportunity to go deeper into why.*

Heather: *I think this is fascinating, there's a lot to take in. Both of these (diagrams) resonated. The self-motivational story, focus on the positive, that made sense, that was very resonant. That whole adjustment of self, in terms of how you relate to the organisation. All these things resonate in terms of the interview that we had where we talked about things but seeing it analysed like that is quite powerful. It's good for sensemaking for me. The reality of what its like has been brilliantly conveyed using this type of diagram, this visually just conveys that there's loads going on at the same time when you're in an organisation and you're an actor in that situation that you do stuff, you're coping and adjusting at the same time, you're referring back to the story in you head, you might go out to recharge your batteries and then there are these frames and ways of thinking that underpin that. And I think that's quite helpful. And I think that would help people in the situation that you've talked about, that would be incredibly helpful. It helps you identify where there's a tension, and where you're having issues and you can think about ways to get yourself revitalised too.*

Jay: *The key to it all is vitality and wellbeing isn't it. That's the engine for it. It backs up something I was reading this morning with the Tarot cards, about me needing new inspiration in my work because I'm lacking vitality. And I thought yes that's right – and this backs that up.*

Rosemary: *God it's really fascinating. For me what I find interesting is the response that I have to me to working in the organisation that I do, and people saying 'I don't know how you do it, how do you stay there'. And the relevance of this, helping people stay inside organisations where if those organisations don't change we are absolutely going down the road of no hope. If there is any hope it's from organisations being changed from the inside, this could help unpick some of the experiences... I think I could recognise my perceived conflict between who I am and*

*who the organisation is. I could certainly recognise a story of trying to do good and all that. So I can see all of it - the organisational pressure in both ways: to perform and also against me performing... So the situation is ongoing but what is really playing is the story, I am constantly updating my story to cope with the ongoing pressure.*

*Robin: I think this thing around coping strategies creating feedback loops that are maybe positive or negative is yeah something that I connect with... Where I'm at at the moment, I've started doing meditation since we met, trying to recognise when feelings arise to not fight it or bury it. It definitely all resonates and I think that thing about willed optimism is quite interesting. Definitely rings lots of bells. The thing of the sustainability of sustainability professionals – how do you stay motivated and how do you cope with this.*

## **Reflections**

The debriefs took place almost a year after the interviews and it surprised me how little of the content of the interview they actually remembered: a few did not recognise some of their own quotes. I had prepared for the debriefs by reading their case summary and scanning the interview transcript so I felt oddly more intimate with their account than they appeared to be. I emphasised that the findings were based on interviews that captured a moment in time in their lives, and were highly context specific and offered an interpretation of their experience. I was interested in their response to the findings based on how they were then, rather than now, but they did talk about what had changed for them over the past year. I have ignored this information in analysing and interpreting the data from their interviews and diaries. I was pleased that all but one (who had shifted role in the intervening period and was no longer focusing on environmental issues) expressed a desire to keep in contact, which I took to be a reflection of the rapport that had been built between us as well as a reflection of their interest in the research area.

### **4.3.8 Checking credibility**

I show in the table below how my research demonstrates the criteria for validity and quality in IPA studies discussed previously (see 3.3.3): sensitivity to context, commitment and rigour, transparency and coherence, and impact and importance (Smith, Flowers & Larkin 2009).

Fig 4.18 Criteria for assessing validity in IPA research (from Smith, Flowers & Larkin 2009)

Criteria	Evidence in my research process
<b>Sensitivity to context</b>	
<ul style="list-style-type: none"> <li>Literature review</li> </ul>	Relevant literature studied (chapter 2)
<ul style="list-style-type: none"> <li>Interaction with participants</li> </ul>	Empathy and rapport-building (4.2.1)
<ul style="list-style-type: none"> <li>Idiographic focus in analysis</li> </ul>	Detailed examination of particular case (4.3.1)
<ul style="list-style-type: none"> <li>Grounding analytic claims in data</li> </ul>	Presentation of findings (chapter 5)
<b>Commitment</b>	
<ul style="list-style-type: none"> <li>Attentiveness to participant</li> </ul>	In managing relationship, and during interview (4.2.1)
<ul style="list-style-type: none"> <li>Care with analysis</li> </ul>	Iterative process, lots of checks (4.3.1)
<b>Rigour</b>	
<ul style="list-style-type: none"> <li>Sample matches research question and is relatively homogenous</li> </ul>	Sample selected on this basis (4.1.3)
<ul style="list-style-type: none"> <li>Thorough &amp; systematic analysis</li> </ul>	Clear process, lots of checks (4.3.1)
<ul style="list-style-type: none"> <li>Idiographic engagement</li> </ul>	Detailed examination of particular case (4.3.1)
<ul style="list-style-type: none"> <li>Beyond description to interpretation</li> </ul>	Presentation of findings (chapter 5)
<ul style="list-style-type: none"> <li>Ground claims in data</li> </ul>	Presentation of findings (chapter 5)
<b>Transparency</b>	
<ul style="list-style-type: none"> <li>Clear description of research process</li> </ul>	Process from initial choice of research questions (2.8.) to implementation of methodology (chapter 4) explained
<ul style="list-style-type: none"> <li>How interpretations were made by showing quotes</li> </ul>	Presentation of findings (5.3.1 & chapter 6)
<b>Coherence</b>	
<ul style="list-style-type: none"> <li>Is argument coherent</li> </ul>	Narrative thread about psychosocial factors influencing human responses to ecological crisis runs throughout thesis
<ul style="list-style-type: none"> <li>Do themes hang together logically</li> </ul>	Presentation of findings (chapter 5 & 6)
<ul style="list-style-type: none"> <li>Are ambiguities / contradictions dealt with clearly</li> </ul>	Discussion of findings (chapter 5 & 6)
<ul style="list-style-type: none"> <li>Fit between research conducted and theoretical assumptions of approach</li> </ul>	Research is consistent with IPA, cognitive linguistics and psychosocial research, and with theoretical concepts such as Self-Determination Theory used in analysis
<ul style="list-style-type: none"> <li>Experiential focus in thesis</li> </ul>	Presentation of findings (chapter 5), and thesis written in first person
<ul style="list-style-type: none"> <li>Nuanced interpretation</li> </ul>	Presentation of findings (chapter 5 & 6)
<ul style="list-style-type: none"> <li>Clarity about mixed methods</li> </ul>	Explained philosophical compatibility of IPA with cognitive linguistics and other theory (3.2.5)
<b>Impact and importance</b>	
<ul style="list-style-type: none"> <li>Is research interesting, important or useful</li> </ul>	Explained importance of increasing understanding of psychosocial factors influencing responses to ecological crisis (1.1.1) and potential for real world impact of models (1.2.2, 4.2.6)

#### 4.4 CONCLUSIONS ABOUT RESEARCH PROCESS

In this part of the thesis I have discussed philosophical considerations and research methods with reference to relevant literature, and drawn conclusions about what constitutes an appropriate and coherent methodology for my study. I then described my process of implementing the methodology from selection of participants to data generation, analysis and interpretation, explaining the rationale for the methods used, and outlined key learning and adaptations made.

One of the key arguments in the literature is that a dualistic separation of humans from nature is a root cause of current ecological crisis (see 2.7.2), because this dualism creates a hierarchical relationship whereby nature is devalued and derogated. This includes aspects of our own selves that are deemed to be associated with nature: the physical body, emotion, intuition, instinct and the unconscious mind. Reason is elevated to supremacy through the process of splitting the rational mind from the nonrational body. This cultural worldview has permeated all aspects of modern industrial life, including academic institutions. The scientific method of objective observation, measurement and explanation of external reality is rooted in this worldview; and the body, emotion and intuition tend to be rejected as valid sources of information in the analytic process.

The opinion that this worldview is maladaptive, which is also my personal view (see 1.1.2), is compatible with the philosophical perspective of Interpretative Phenomenological Analysis (IPA) and the embodied realism of cognitive linguistics that I have adopted as methodological frameworks in my study. This is because these perspectives understand human experience to be situated and embodied and recognise the fundamental entanglement of psychological processes with social contextual forces. Physical body

sensations and emotions are valued as sources of information, and intuitive knowledge is accepted as valid, which makes my use of them as part of my methodology coherent and congruent.

Adopting these theoretical perspectives that recognise the interconnectedness and interdependence of humans with the natural world, and of mind with body, as part of a methodological framework for my study is a radical and political act in an academic domain dominated by positivism. With specific regard to research into factors influencing human responses to ecological crisis, my methodological approach of integrating IPA with cognitive linguistics and using micro-discourse analysis methods is unusual and innovative, and possibly unique. There are risks with using a methodology that is unfamiliar. IPA is a relatively young psychology research methodology, and it is not prescriptive about the precise method for interpreting data. Frame and metaphor analysis may be conducted quite differently by different analysts. The openness and flexibility of these methodological frameworks is both liberating and daunting, and so it takes some courage and confidence to adopt them. But there are recognised ways of enhancing trustworthiness of the results such as using stakeholder checks and application of the criteria for validity and quality in IPA studies.

In implementing the methodology I have drawn on intuitive, experiential, intersubjective and professional knowledge (Smith, Flowers & Larkin 2009; Lakoff & Johnson 1999; Easterby-Smith et al 2008; Firestone & Dawson 1982). The intersubjective knowledge is created in the interaction between me and the participants, and it is also created in my interaction with theoretical concepts in the literature - that have themselves been intersubjectively created. My intuitive, experiential and professional knowledge comes from ten years practicing mindfulness and nature connection and teaching these practices to others, and from twenty

years experience of working with people in organisations and coaching them in personal and professional development.

#### **4.5 ASSUMPTIONS, SCOPE + ETHICS**

This section contextualises the methodology used by looking at assumptions made in the research, scope of the study, and ethical considerations.

##### **4.5.1 Methodological assumptions**

The key assumptions in my methodology are:

- The natural world has an external reality as well as being a human construct, and it has intrinsic value independent from any instrumental value to humans
- Pro-environmental values, goals and identities are meaningful psychological constructs
- Metaphor use is not arbitrary and something can be inferred about how the speaker conceptualises their world by their use of particular terms
- People may not be consciously aware of all the processes involved in their behaviour and experience

##### **4.5.2 Scope of research**

The study is concerned with:

- Enquiring into the lived experience of influencing pro-environmental responses in organisational contexts
- Identifying and making visible psychosocial processes involved in such experience that affect enactment of pro-environmental values through behaviour
- Drawing conclusions about the implications of these processes for influencing pro-environmental responses in organisational contexts

The study is not investigating:

- Organisational culture, policies or practices independently of the participant's perception of them (see 4.5.3)
- Organisational activity and the impact of this activity on the natural world
- How effective participants are in influencing their organisation with regard to particular desired outcomes
- The green behaviours of the participants at work (e.g. recycling, conserving resources, purchasing eco-products)
- All possible factors influencing enactment of values and identity
- How pro-environmental values and identities are developed or can be strengthened
- How mindfulness can be cultivated and whether this cultivation has an effect on response to ecological crisis

Other limitations of the study:

- Not cross-cultural study: it was limited geographically to UK and Canada
- Does not include private sector organisations
- Investigation of participants in their work settings: it is specific to this context and not
- Not longitudinal study - captured views at a particular moment in time though it did include a final debrief a year after the interviews
- Frame and metaphor analysis of English language only
- Small sample size due to detail of micro-discourse analysis

#### **4.5.3 Strengths and limitations of methodology used**

The transdisciplinary nature of the theory underpinning the research embraces a complex view of human consciousness, together with the technique of micro-discourse (frame and metaphor) analysis, this enables a more comprehensive and nuanced understanding of lived experience to be developed. The methods used also give some possibility for looking at the phenomenon under enquiry from perspectives other than the participant through studying organisational documents and indirect observation of meetings, although in my study these other data sources constituted a much smaller and less important part overall.

The methodology constructed allows the researcher to draw on intersubjective, intuitive, experiential and professional knowledge, which to me felt very satisfying and wholesome because it supported an integrated sense of self. However, the absence of detailed and standardised guidance about how to conduct micro-discourse analysis means the researcher has to be extra careful in checking their own biases when drawing inferences from the data. There is higher potential for idiosyncratic interpretations so conducting credibility checks is very useful (Firestone & Dawson 1982).

IPA has an idiographic focus (see 3.2.3) and I do not make any claims about the generalisability of my research findings for a wider population, in other organisational sectors, in non-English speaking cultures, or in other social contexts or domains of life. The study is situated i.e. it is investigating the participants' lived experience in their work setting.

It was a conscious analytic choice to use particular theories and concepts to inform the data analysis and interpretation, such as Self-Determination Theory, environmental philosophy and ecopsychology perspectives on human-nature relationship and mind-body connection. Other theories would necessarily lead to other findings and interpretations.

IPA grounds the analysis in an understanding of the participants' phenomenological experience and the meanings they make (Smith, Flowers & Larkin 2009). The study is not attempting to objectively assess the organisational context by examining organisational policies and practices and culture, as this is at odds with the epistemology of IPA and embodied realism of cognitive linguistics (see 3.2.1), and is not especially relevant for a study focussing on the perceptions and understandings that the participant makes, regardless of whether these may be deemed by the researcher to be accurate or inaccurate.

Scholars interested in examining power relations in society or dominant social discourses through critical discourse analysis may find my methodological approach of frame and metaphor analysis to be a limitation because it does not share that focus. Frame and metaphor analysis from an ecolinguistics perspective is concerned with critiquing discourses for ecologically beneficial or destructive dimensions. Combined with a cognitive linguistics perspective, it is concerned with cognitive structures (activated by frames and metaphors) and the effect these structures may have on how people think about and respond to ecological crisis.

The limitations of self-report methodologies, such as memory biases and other errors in describing subjective experience have been widely documented (Podsakoff et al 2012; Brown & Cordon 2009). There is an added dilemma in studying underlying drivers of behaviour because they often occur below the level of conscious awareness (Kahneman 2013; Breakwell 1986; Vignoles et al 2011; Lertzman 2015; Maio et al 2011; Thibodeau & Boroditsky 2011; Lakoff & Johnson 1980; Cramer 1998; Rogelberg 2006; Willig & Stainton-Rogers 2010) so they are not as readily accessible and are less easy to articulate directly than opinions (Swim et al 2011). However, it is precisely because people may not be consciously aware of all the processes involved in their behaviour and experience that IPA has a critical-hermeneutic dimension, which allows the researcher to not simply take the self report at face value but to generate an alternative narrative drawing on extant theory and their own professional experience and knowledge. Frame and metaphor analysis is another way of responding to the dilemma of investigating unconscious processes because it allows for conceptualisations to be discerned, that the speaker may or may not be aware that they are making.

#### 4.5.4 Ethical Considerations

I obtained ethical approval for my study prior to the participant recruitment phase. All participants signed consent forms, and also gave agreement by email to the details of their participation in the study (see 4.2). Participants were offered a form to gain consent from their organisations for their participation but only one participant found it necessary to obtain such consent.

The key ethical issues I considered:

- Treatment of confidential or organisationally sensitive information: what type of information can be included and what information needs to be deleted or altered to protect anonymity. I consulted and reached agreement with the participants in the final debrief session about the inclusion of contextual information (see 4.3). I created pseudonyms and removed other identifying information from the extracts used in this thesis, conference presentations and journal papers.
- How to conduct the final debrief with participants: what interpretations to include and exclude, and what approach to use in sharing this information. As Clarke & Hoggett (2009 p46) find the central ethical question in psychosocial research is to what extent research findings are communicated to participants and how, concluding that there are no easy answers. The process used to make decisions about how to conduct the debrief has been described earlier (see 4.2.6).

## 5 KEY THEMES IN EXPERIENCE

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### 5.1 INTRODUCTION

The fieldwork findings are presented and discussed in two chapters. This first chapter addresses RQ1 with an in-depth analysis and interpretation of the key themes in the participants' accounts, informed by the literature reviewed in chapter 2. The findings generated by this analysis are then discussed in relation to relevant literature. In addition to the literature reviewed in chapter 2, which led to the RQs and informed the analysis and interpretation of data, I also include organisational studies literature. This is because my study is situated in the experience of individuals working in organisations, and my findings contribute new knowledge about factors influencing environmental behaviours in organisations. Chapter 6 brings the focus to RQ2 by presenting and discussing key insights arising from this analysis with regard to psychosocial processes influencing the participants' enactment of pro-environmental values, as well as addressing RQ3 with discussion of consequences and implications for the individual and for the organisation.

RQ1 What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?

In the preceding chapter I described the procedures I followed to analyse and interpret the fieldwork data, a process that resulted in identification and clustering of emergent themes (subthemes) under seven higher order theme labels. These themes represent key aspects of the participants' experience in their work to influence and improve environmental policy,

strategy and/or practice in their organisation. The higher order themes are common to all the participants, however there are convergences and divergences in the way the subthemes show up, and these nuances are a key feature of the narrative I provide in this chapter.

The findings are presented with an in-depth and detailed analysis, involving both descriptive and interpretative narratives. The interpretation is grounded in the phenomenological evidence of extracts from participants' accounts (Smith, Flowers & Larkin 2009). The interweaving of analytic commentary and interview extracts reflects the intersubjective dialogue between participant and researcher in co-producing the research through our interaction (Clarke & Hoggett 2009; Smith, Flowers & Larkin 2009). The interpretation I present has been informed by theories of psychological threat coping and defence, Self-Determination Theory, ecological/environmental identity, and cognitive frames. These have already been explained in the literature review chapter, and in the text I refer to the relevant subsection to make the theory easier to locate.

Although Interpretative Phenomenological Analysis is concerned with gaining insight into the essence of the phenomenon under study, which it does through enquiring into lived experience and identifying key themes across cases, I preface the detailed analysis of the key themes with short pen portraits of each participant, using pseudonyms. These are provided to familiarise the reader with the participants and give a sense of their complex experience as a whole so that it may be easier to then follow the story of each participant through the subsequent in-depth and nuanced analysis, which focuses on key themes rather than on the individuals per se.

## **5.2 PEN PORTRAITS**

### **5.2.1 Rosemary**

Rosemary has worked in a local authority in the UK for 3 years, having recently been promoted to a role as Strategic Environment Manager with responsibility for producing a regional environmental strategy. The organisational context is one of severe budget cuts and constant restructures. She perceives her work environment as time-pressured and stressful, dominated by fire-fighting activity, and where there is a fear of making mistakes. She thinks there are lots of conflicting influences on the organisation, which means it is torn in too many directions trying to be everything to everyone, and she perceives a lack of leadership and courage in setting priorities. She has very little support from her immediate boss because he is involved in so many other things.

Rosemary is motivated by a desire to make a difference about something she cares about, namely protecting the natural environment. She feels isolated in her organisation, as others seem less concerned about the consequences of the organisation's decision-making on natural habitats and the organisation as a whole is all about profit. There is a move to devolve natural assets to local ownership to get them off the authority's balance sheets and Rosemary is seeking to protect these assets through responsible stewardship but was a lone voice in a recent meeting. She thinks the organisation is environmentally irresponsible because some of the organisations that could be taking over these assets are inexperienced at managing such assets and may not be able to succeed. Her colleagues seem unwilling to engage in the kind of conversations she wants to have, where complex problems are grappled with until a solution emerges. She thinks there is a tendency to rush to a solution, any solution, and not think through the long-term consequences. She feels very frustrated at all this, and perceives herself to be working in an organisation that a lot of the time is doing the exact opposite of what she believes to be right.

She also feels under pressure at work to produce an environment strategy quickly, and there is a lot of expectation around that. She also puts pressure on herself because she wants to do a really good job with the strategy as it is about something she cares about. Rosemary exerts a lot of effort and energy in, as she sees it, being in the system and trying to change it, and finds it energetically exhausting. She is also trying to find the confidence to be able to deal with her opinions and approaches clashing with her colleagues and to accept that she may not always be liked.

Rosemary gains restorative benefit from being in natural places, and it also helps renew her motivation as it reminds her of why she doing her job. However, there are some consistencies in her felt sense of connectedness with nature and she struggles to find a daily nature connection practice. She also feels some conflicts in her sense of self, and feels guilt about the difference between her ideal self and her actual self in terms of pro-environmental behaviour in her personal life.

Rosemary's relationship with external environmental sector partners provides her with the psychological and practical support that she does not receive internally. She finds the partners can say and do things that she herself is unable to, which she finds useful, and she has been able to generate much more influence within her organisation through her role with the partnership.

Her belief that she can make a positive difference and that she is fulfilling her destiny by working in this role, helps her to keep going. However, she is aware that she needs better balance in her life in terms of work and personal time, and needs to do more of the kinds of activity that she knows will help maintain or improve her physical and mental health.

Rosemary's main coping strategies include avoiding feeling negative emotions, optimism, escapism/numbing, use of motivational story, collaborative working, talking to like-minded people, being in natural places and connecting with nature, and acceptance and realism.

### **5.2.2 Jay**

Jay works in local government in the UK as a ranger with responsibility for conserving and restoring a nationally important habitat. He has been in post for 11 years, and is currently working in an organisational context of major ongoing restructuring and job losses, and is concerned to ensure that the restructures do not adversely affect effective site management.

Jay is motivated to do his job because he wants to do his bit to help protect and restore natural habitats over the long term and put things in place so that the next generation can continue the good work. He feels he is doing something valid. Destruction and damage to the natural world used to upset him and a deep level, but he now takes what he sees as a less emotional and more realist approach, partly because he doesn't want to get distressed.

Jay feels annoyed and frustrated at work because he perceives management to be largely incompetent and inefficient, not giving sufficient support, and lacking in the specialist knowledge needed to make good decisions. Their indecision and vagueness about restructuring and lack of clarity about roles puts pressures on Jay and his colleagues, creates tensions and conflicts between them, and causes delays in projects. He also dislikes how his manager is quick to take credit for his work, and how people will not share information in order to protect themselves - when that information if shared would have improved everything. This has resulted in Jay not trusting his managers.

Although lack of support from management internally is holding him back, he has a very good relationship with an important external environmental partner. This relationship provides him with psychological and practical support, and without this he acknowledges it would be very difficult to do his job. He is also forming a good relationship with the assistant director with whom he thinks there is some shared understanding.

Jay feels under pressure to make sure that if the organisation is going to get rid of staff that he is doing his job so that he is protected, and is keen to put across a professional business-like image. He has put a lot of time and effort into work because he felt he had to, and he feels tired and stressed. Jay is noticing it is affecting his ability to think and be effective: he feels he has become disorganised in his mind and is coming to the end of his tether. Jay recognises that some of his coping strategies are counter productive, such as use of alcohol which is ultimately energy depleting if effective as a form of escapism in the short term. Jay needs strength in order to cope with conflicts and being unpopular, and tiredness reduces his willpower to counter bad habits.

He is aware that he needs to rebalance his life so that he has more time at home and more energy to pursue the kind of outdoor nature activities that he used to enjoy. However, because of the nature of his work he spends a lot of time outdoors and gains restorative benefit from working in the woods and the meadows, tuning into the energies of the trees and noticing different things. When he is feeling particularly stressed, Jay doesn't notice nature as much.

Jay's main coping strategies include escapism/numbing, avoiding feeling negative emotion, talking to like-minded people, connecting with nature, acceptance and realism, collaborative working, use of motivational story, and meditation.

### 5.2.3 Ash

Ash works in local government in the UK as a Sustainability Manager with responsibility for delivering renewable energy programmes in the town. He seeks to reduce the organisation's direct and indirect carbon emissions and to increase green infrastructure in the town. Ash is acutely aware that environmental work is not a statutory duty and feels pressure to deliver results to justify his own existence: just being the green conscience of the organisation is not enough.

Ash has worked in the environmental sector in local government for a long time, and in this organisation for 10 years, motivated by improving people's quality of life and bringing nature back to cities, as well as doing his bit for the environment. He is also motivated by a sense of achievement when projects are successful, and feels energised by the prospect of delivering something significant. However, he sometimes feels miffed when external partners or senior managers or politicians ignore or take for granted his contribution in making a project happen. Feedback is important to Ash for motivation.

Ash thinks local government is generally a force for good and couldn't work there otherwise, but his organisation is primarily interested in the business case and it is on this basis that he must sell environmental project ideas to managers and local politicians. There must be a direct financial incentive or clear financial penalty, simply having intrinsic environmental worth is not enough. Ash has made getting the ear of senior executives a priority and is therefore concerned with projecting a professional and credible image, being seen as a positive agent for change rather than a trouble maker, and to that end is careful to not appear 'deep green' in his appearance or in how he talks. He is aware that over time his identity has shifted from being someone outside the system, a hippy in a suit' to a local government officer. Ash is pragmatic about what is possible to achieve with limited capacity, but has occasionally wondered whether he made the right choice after leaving university to

work within the system, and has some self-doubt about what difference he is really making as he has been absorbed by, and changed by, the system over time. He still has some sympathy for a deep green ethics that appreciates the intrinsic value of nature.

He feels isolated in his organisation for two main reasons. Firstly because job cuts means there are fewer staff so whereas in the past he had a team of four, now he works alone. Secondly, because there is a lack of shared values with colleagues who he thinks are more concerned with saving money. However, he feels much more connected to the external third sector environmental partners he works with, and these relationships help sustain him and keep him motivated. He doubts the partners realise the importance of their role in providing psychological support although he has told them that he enjoys working with them.

Ash moved into a rural area partly so he could experience nature more often but has weaker commitment to pro-environmental behaviour in his personal life, which he justifies in terms of his commitment to his role at work. Ash gains restorative benefit from being in natural places unless his mind is preoccupied with other things, and thinks that being in a city makes it easier to forget about nature and to feel apart from it. Ash feels a sense of loss, frustration and melancholy about what humans are doing to the natural world, but he has put these feelings in a box in the attic of his mind and tends not to explore them. His feelings about nature are irrelevant to an organisation that is concerned with the business case.

Ash's main coping strategies include avoiding feeling negative emotion, talking to like-minded people, connecting with nature, acceptance and realism, collaborative working, use of motivational story, and optimism.

#### 5.2.4 Robin

Robin works as an Environmental Sustainability Officer in a social housing organisation in the UK, and has been in post for 3-4 years. He is responsible for helping the organisation reduce its direct and indirect carbon emissions and works across the organisation to help integrate environmental sustainability into departments. He seeks to influence decision-making about building design and also estate management to increase the creation of wildlife habitats around the organisation's properties. Robin recognises that the changes he wants to make will take time and he sees it as a gradual improvement process.

Robin cares about loss of green space but thinks this is something the organisation does not care about. He feels conflicted about the organisation building housing on greenbelt land. A policy about not building on greenbelt land was taken out because if a development opportunity arose the management didn't want to have anything that would stop it. However as an affordable housing provider and given the broader societal problem of homelessness, he thinks the organisational goals trumps his personal goals and feelings about loss of green space. Money is quite tight and Robin finds that a financial rather than an environmental argument for doing things differently is necessary – he has to build a business case and demonstrate how it will save the organisation, or the residents, money. Fuel poverty and its associated health impacts is a major theme at the moment in the organisation.

Robin is motivated by making a positive environmental difference that is also in line with his personal beliefs, although he does not see himself as a 'deep green' person. He wants to be seen within the organisation as someone who is helpful and who adds value to projects, and is therefore concerned to work with his colleagues and build support. He sees himself as not very confrontational, relatively pragmatic and willing to compromise on some things as he

has developed an understanding of the challenges his colleagues in other departments face. However, Robin does not feel particularly close to his colleagues.

Robin finds there is quite a lot of positive environmental stuff happening in the organisation although support for sustainability is less strong in some departments than others. As part of his role, Robin set up a sustainability strategy steering group comprising several self-selected senior managers from various departments who he regards as allies. But there are some senior managers and heads of department who are less interested, even anti-environmental, and he has found it harder to get any traction in these parts of the organisation. There is a new corporate strategy this year and because there are no environmental sustainability champions at senior management and Board level, Robin had to ask certain individuals to make sure there were things in there about it. He recognises his capacity is limited and therefore prioritises, but has a sense there is always more he could do. He likes a challenge and would reach a point of frustration if he felt he couldn't push boundaries any further. He plays a game in his head around how far he can push things with certain building specifications. Nevertheless, he recognises the organisation does not want to be on the very front line of innovation making all the mistakes, but second wave.

Robin finds there has been a big change in the way the organisation does learning and developing by bringing in a coaching culture, and he has enjoyed this new approach. Robin gains restorative benefit from being in natural places and doing physical exercise, he finds it invigorating. However, his sense of being part of nature is less when at work, inside a building. He feels frustration, sadness, loss and anger about what humans are doing to the natural world.

Robin's main coping strategies include avoiding feeling negative emotion, talking to like-minded people, connecting with nature, acceptance and realism, collaborative working, use of motivational story, optimism, distraction through socialising and watching TV, and physical exercise.

### **5.2.5 Hazel**

Hazel is an Energy Steward in a large acute healthcare organisation in Canada, where she has worked for 8 years. She leads programmes to reduce waste and energy use in the organisation, and seeks to reduce the organisation's environmental impact through culture change and by embedding sustainability into organisational decision-making. She thinks the organisation places excessive workloads on staff; that they are overtasked. There is an unrealistic organisational demand to be the best at everything, and this creates a pressured work environment of competing priorities. It also means Hazel has to cherry pick and make decisions about what work to prioritise, taking into account what is important that day and for whom. Hazel finds that as an acute healthcare provider, there is an assumption that individual needs are paramount over collective needs. Also, there is a focus on the immediate rather than longer term – a treatment mindset rather than prevention mindset. This means they are expert in making quick decisions under pressure, and the kind of future system thinking that Hazel and is involved in is outside their comfort zone. She would like the organisation be more vocal in its support of environmental issues to make use of the influence it has in the local community and with other organisations.

Hazel is motivated to do her job by a sense of social justice with regards sustaining a way of life where people can experience some sort of comfort and beauty, and by a desire to help protect the natural environment. She feels positive about the work although she accepts that changes are happening more slowly than she initially wanted and she has had to adapt

to the pace of the organisation. She had felt disappointed about the slowness of change but now she is fine with people taking a long time to make decisions.

Hazel adopts a non-combative approach, working over time to build rapport with colleagues because she finds that she needs to have allies to get things done - she relies on her colleagues for success and has told them this. She wants her colleagues to feel like they are part of something, and that they are needed for the next step. Getting tangible results and doing things that work for people help to build trust and credibility. She prefers personal face-to-face conversations and finds that people need that kind of attention but with 16,000 staff she is realistic there is no way she can do this with everybody. She thinks there may be a guardedness around what some colleagues will say about their true environmental concerns and feelings when she is present because she works in the environment department. Environmental sustainability work is personal for Hazel, she feels she lives and breathes it day to day. She has a close working relationship with her boss who she sees more as her equal because they have different strengths.

Hazel is noticing what she calls adjacent benefits to the sustainability work: where there is more participation and engagement with the waste, energy and toxics reduction programmes there is greater social cohesion in these departments, greater job satisfaction and improved quality of work. These kinds of metrics are important to the organisation generally and Hazel interprets these results although preliminary as signs that the culture is beginning to shift.

Hazel finds what humans are doing to the natural world depressing and scary but is also hopeful. Being in natural places and even catching brief glimpses of it has a restorative

impact on her. She feels more disconnected from nature in urban environments and finds she has to be intentional about seeking out nature experiences there.

Hazel's main coping strategies include avoiding feeling negative emotion, talking to like-minded people, connecting with nature, acceptance and realism, collaborative working, use of motivational story, optimism, and taking a broader perspective of Earth's history over millennia.

### **5.2.6 Heather**

Heather is Chief Executive of a credit union cooperative, which is a recent appointment (3 months in post). She is ultimately responsible for the organisation's activities. She is working with the Board to produce to produce an environmental policy and is seeking to reduce the organisation's direct impact as well as its indirect impact by financially supporting more environmental organisations.

Heather used to work in the private financial sector but left because the conflict between her personal values and ethics and those of the sector had a strong negative mental and physical impact on her. It was also a very intense and stressful environment. She chose to work in the cooperative sector because she didn't want to have that constant feeling of conflict and needed to have her job fit with her personal values. She took a big pay cut to work in this organisation but the fact she can sleep at night and is happy with what she is doing is really important to her. Being able to take proper breaks and have regular time out to reflect was part of the discussions when she took this job. Credit unions have a strong social conscience, and as a cooperative they work to a set of principles (the Rochdale Principles) to do with being democratic, having member engagement, concern for community and so on. The cooperative movement is all about creating a better world, and in

her organisation the staff and Board as individuals are passionate about that. She feels her values are shared with her colleagues and within the sector. Hazel is motivated by these positive cooperative principles and values and the desire to do some good stuff and make a difference, and believes that as a leader she has to be a role model. She has a personal belief about living in harmony and doing no damage.

The organisation is trying to grow and there is a need to prioritise goals because there are multiple stakeholders and there is so much the organisation is or could be doing. Heather also finds it important to articulate the organisation's principles because over time these principles can be forgotten and the organisation loses sight of what it is trying to be. The risk then is that it becomes just like any other organisation.

As relatively new in post, Heather is still in the process of building relationships with her team, and developing trust with each other and creating a team ethos. She is keen to create an open and mindful culture where people can be themselves and have their say, and any one person can step up and be an influence and make a positive difference.

Although she is optimistic generally she is pessimistic about the environment and state of the planet, and feels worry and frustration. Connecting with nature is important to Heather, and she notices how different she feels indoors compared to outdoors. She gains restorative benefit from being in natural places and outdoors, and from doing physical exercise. From being involved with the study and keeping a journal she has become aware of certain ways that she was living her personal life that didn't quite match her professional life with regards to environmental impact.

Heather's main coping strategies include connecting with nature, avoiding feeling negative emotion for too long, talking to like-minded people, acceptance and realism, collaborative working, use of motivational story, optimism, physical exercise, and taking a broader perspective of Earth's history over millennia.

### 5.3 OVERVIEW OF KEY THEMES

The table below (Fig 5.1) provides a list of the higher order themes with associated subthemes. Each subtheme is illustrated with an example quote.

#### Reading the quotes

- Direct quotes from participants are written in italics
- Other information is placed in brackets e.g. pause, sigh, laughter, words that I have inserted in order to clarify meaning, and text that has been removed in order to protect anonymity
- A deletion of part of the quote is signified by "..."
- Where the speaker has cut short or rushed a word, this is signified by "-"  
" e.g. *I find it very difficu-*

Fig 5.1 Table summarising themes with illustrative quotes

HIGHER ORDER THEME	SUBTHEMES	ILLUSTRATIVE QUOTES
Motivational story	Doing good, achieving results, making a positive difference	<i>I like to think that I'm making a positive difference towards my own beliefs in terms of environmental issues and generally as well</i>
	Optimism, focus on positive	<i>If I think about it too much it gets a bit bleak so I try and go, I try and go, "I'm doing good things for the environment!"</i>
	Hero, Protector, Helper narratives	<i>Can't be you know having my pants outside my trousers (laughs) you know for the rest of my days I'm holding the baton for the environment</i>
Relationship with organisation	(In)congruence of values/goals with organisation,	<i>I'm working... in an organisation that is doing exactly the opposite of what I believe to be right a lot of the time</i>
	Support, connection	<i>My immediate boss is very absent he's very very involved in all sorts of other things so we get very very little support</i>
	Oppositional dynamic: fight, competition, game, challenge, conflict	<i>you know you wont win every battle, and accept that you lose some</i>
	Adaptation, compromise, acceptance, prioritising goals	<i>I'm pushing for the environmental side but also understand some of the other pressures and compromise on some of those things</i>
Identity salience	Expression, suppression, projection of 'deep green' identity	<i>The more they get to know me- well the more I get to know me, the deeper green I'm becoming!</i>
	Credibility, professionalism, pragmatism v 'deep green' identity	<i>I'm not going to wear sandals bring lentil sandwich to work and have a beard. So being seen as being credible and professional</i>
	Reason-emotion duality	<i>It used to have a much more emotional impact on me whereas now I'm a bit more - slowly - I'm a bit more of a realist</i>
Engagement with negative emotions	Suppression, avoidance of negative emotion	<i>I think I probably try to repress a lot of those emotions because doing the work that I do you have to sort of stay optimistic and hopeful</i>
	Reason-emotion dualism	<i>how do I feel about it (in quiet voice) as local government officers it's all bashed out of us in our day job because what we feel about things is completely irrelevant it's about what the business case is, and you know pragmatic</i>

Mindful awareness & embodied cognition	Self-regulation	<i>I'm getting better at recognising when I feel that sense of tension or worry, so if I can recognise it I'll try to do something quickly about it</i>
	Mind-body (dis)connection	<i>The desire is to move, like often it's to move to bring it back into my body to allow it to process but oft-uh it doesn't always allow it</i>
Tensions in experience	Experience of pressure, conflict, struggle, difficulty etc.	<i>Because I care about that (environment strategy) I want to do a really good job so the pressure is immense</i>
	Desire for wellbeing, comfort, balance, support	<i>I've put too much effort into work because I've needed to so I don't get any time at home now. So that's a rebalance I need to make</i>
	Coping strategies	<i>I'll go home and get drunk (laughs) to get out the frustration</i>
Relationship with nature	Multi-sensory	<i>You can hear everything and you can sort of smell outdoor smells and you can sort of touch the grass</i>
	Spiritual/transpersonal experience	<i>I feel completely and utterly at one</i>
	Restorative benefit	<i>It gives me a sense of calm and wellbeing</i>
	Motivational	<i>Just being outside reminding me that's why I come and do this stuff</i>
	Appreciate intrinsic value of nature	<i>When natural spaces are lost its sad that its not there as intrinsic value</i>
Inconsistencies in sense of connectedness	<i>I have less relationship with it at work because I'm probably, I don't feel like I'm in it in some ways</i>	

## 5.4 MOTIVATIONAL STORY

Subthemes:	Doing good, achieving results, making a positive difference Optimism, focus on positive Hero, Protector, Helper narrative
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This higher order theme is the story the participants tell themselves that provides a rationale for the work they do, justifies their experience, and motivates them to keep doing what they are doing. Whilst all participants have the same overall ‘doing good’ story, there are some subtle differences that were expressed for example in relation to the narrative role (i.e. Hero, Protector or Helper) and the need for feedback. There are also differences in the personal context for their story, for example in how difficult or stressful they find their experience, with the implication that the story needs to be more robust the more difficult or stressful the circumstances.

*Rosemary: I'm working in the environment in an organisation that is doing exactly the opposite of what I believe to be right a lot of the time. And then trying to be the person that's dragging that up and changing it, it's just (pause) oophh (sighs) why would you do that to yourself? (laughs) you know*

The story answers this question of *why would you do that to yourself* and in so doing it helps create personal meaning and greater inner coherence, thus contributing to satisfying autonomy needs (see 2.3.3 for definition of needs) that may be thwarted by other aspects of their experience as I discuss in later sections of this chapter. In stressful interactions with the organisation, the motivational story functions as a form of psychological threat coping strategy (see 2.5.2).

### 5.4.1 Doing good and achieving positive results

A story that was common to all was ‘doing good’ and ‘making a positive difference’ with regards to environmental impact, as shown in the quotes below. From a Self-Determination Theory (SDT) perspective, being effective in achieving goals helps satisfy competency needs.

This story expresses the intrinsic goal of community feeling and self-transcendence values (see 2.3.1) as illustrated by these quotes:

*Robin: I guess I don't do the job just purely for money I have the interest in terms of the subject matter and also I like to think that I'm making a positive difference towards my own beliefs in terms of environmental issues and generally as well.*

*Rosemary: I think I can make a difference and I think the people that we've got around us now we can make a difference, which is suppose is why I keep doing it*

*Ash: gen- I mean gen-generally I think local government is a force for good I couldn't- I wouldn't work here if I didn't, I couldn't*

A variation of the 'doing good/making a difference' story is 'doing one's bit', which was expressed by Jay and Ash:

*Jay: and then the longer you're in it the more you go to oh well there's not a lot I can do now apart from my bit but if I put things in place, I've put a lot of energy into it, if I put things in place the next generation who are coming through who are younger and their energy hopefully will be strong enough to do that*

*Ash: believing that it's all going to be sorted out or kind of giving up and assuming it wont, you need to reject both of those they both lead to inaction, and what you have to do is try and do your bit, really uh that's the only thing that empowers you to do anything*

However, there is the possibility for tension between the values and goals of the story and an oppositional goal of self-protection in organisational contexts of job insecurity due to cuts in public funding. As two participants note:

*Ash: these aren't the times when you can afford, just someone going around being the green conscience of the organisation you know, got to deliver results to justify your own existence really*

*Jay: making sure that if we're going to get rid of staff that... I do my job so that I'm protected*

Both Ash and Jay work in local authorities in the UK where environmental work is not a statutory service. As Ash explains,

*you don't have to employ me, you don't have to do what we do, you wouldn't be breaking the law if you get rid of me and get rid of my budget, nothings happens. People might think it's a shame but nobody's going to take you to court. Which I think puts part of a real pressure on me to deliver results on projects otherwi- you know-*

In these situations, self-protection values and goals are likely to be activated in response to the threat of losing one's job. As explained previously (see 2.3.1) these values and intrinsic goals appear to be organized in the mind in opposition to each other, making it difficult to simultaneously pursue behaviours congruent with both these values. Evidence of self-protection values can be seen in these statements by Jay:

*The way I do it is I don't trust- there's no point feeding up to people because I don't trust them... If you don't pass that information on at least you can keep doing that work and improving it until you think right boom it's so big now its impossible for you to claim that*

*And now I'm under threat because it looks like you've done that job when you haven't done that job*

*Being selfish isn't always a bad thing. You have to be selfish sometimes, life's about self protection*

Tension between intrinsic and extrinsic self-protection goals is indicated in the following extract (*strive, forced*). Jay was talking about a supervisor in a previous job who warned him about people withholding information.

*Jay: when really (if) that information would've been spread it would've improved everything. But that doesn't happen because people protect themselves*

*Me: Are you like that then?*

*Jay: Sometimes yeah can't help it. Strive not to but sometimes you do. Sometimes you get forced into a corner with it*

### **Achievement and feedback**

The quote from Jay above about getting proper recognition for results he has achieved (*it looks like you've done that job when you haven't*) highlights a link between competency and feedback. This link is reinforced further when Jay says:

*And my boss turned round and said 'that's fantastic you do know that I'm going to claim all the credit for this'.. (waits expectantly for me to laugh) so its quite demotivating really*

Ash also talks about feedback explicitly. Achievement is a strong motivator for him:

*sometimes I just feel really chuffed and kind of sense of pride and achievement really, and it reminds you why you're doing it. I need that feedback*

For Ash, lack of feedback triggers feelings of resentment:

*you can't but help feel a bit miffed on the day ah that somehow your contribution has been completely ignored or taken for granted*

Feedback is not just about getting recognition but can also refer to getting necessary information from management in order to achieve competency:

*Jay: so I want them (senior management) to be quite specific about 'right this is what's needed, this is what I want you to do' because this vagueness will have to stop. Because they muddle by on this vagueness, it's like you can't be vague if you've got something to achieve because you're achieving nothing*

These examples from Ash and Jay suggest that lack of feedback may not just affect competency, but also relatedness needs. Feelings of belongingness and trust in others may be affected by the perception of one's contribution being overlooked, not appreciated or not credited.

#### **5.4.2 Optimism and focus on positive**

Focussing on positive aspects of the work and being optimistic was important to their motivational stories. I discuss emotion in more depth later (see 5.7) but I illustrate this subtheme here with the following quotes:

*Robin: I don't think many people could do this job if you were a negative person*

*Rosemary: If I think about it too much it gets a bit bleak so I try and go, I try and go, "I'm doing good things for the environment!" (laughs)*

#### **5.4.3 Hero, Protector, Helper narratives**

The 'Hero' narrative of achieving good in the face of adversity and criticism is an archetypal story<sup>18</sup>. I found evidence for such a Hero narrative with one participant Rosemary, and it

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<sup>18</sup> See Joseph Campbell's work on the hero's journey in world mythology

appears to be mixed with a story of fulfilling one's destiny. It is a story about which she is self-aware. The following three quotes from Rosemary show these themes:

*Trying to work within the system to try and change the whole thing so we don't have to get to that sort of anarchic future predictions where you know the sky's falling in*  
*Can't be you know having my pants outside my trousers (laughs) you know for the rest of my days I'm holding the baton for the environment of (name of place)*  
*I have some sort of belief that if you're in the right place and doing the right things the universe supports you. Which might you know (laughs) think it's part of my story*

There is also a Protector narrative in the 'doing good' story, indicated most obviously by repeated use of the term *protect* in reference to the natural world. In a study of cognitive frames used by environmental charities in their marketing materials, a Protector frame<sup>19</sup> was commonly used (Blackmore & Holmes 2013). This frame involves ideas of harm and threat, and for the participants their jobs involve working to defend against environmental harm. The threat can be perceived as coming from the organisation itself, as well as from society at large. This may contribute to an oppositional dynamic, which I found to be present in most participants accounts, as I discuss in the next section 5.5 Relationship with organisation. Another aspect of the 'doing good' story is a Helper narrative. This refers to a role supporting or facilitating colleagues to improve their sustainability performance, and can be associated with both competency and relatedness needs. One participant in particular expressed this aspect:

*Robin: So I am kind of a support resource to lots of teams across the organisation... hopefully I can prove that I can add value to things and help with more tenders or help with design of buildings*

There were hints with two participants of a conceptualisation of being up against an unstoppable force:

*Rosemary: trying to hold back this tide (of development)*

*Ash: the loss of natural space feels like a slow inevitable decline*

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<sup>19</sup> Capitalising the frame name denotes this is how it is termed in the literature

The 'doing good' story then is not watertight - and the question arises of what happens if the story sinks, as Rosemary herself acknowledges:

*My worth is wrapped up in how successful I am about protecting the environment of (name of place). Risky! (laughs).*

Relying on a Hero/Protector story for self-esteem does indeed seem a risky strategy in the face of huge external forces over which one has limited control, and in situations where feedback about success is ambiguous - Rosemary reports that measuring the organisation's environmental performance is very difficult because *we really do not have a good set of environmental indicators, they just don't exist*. With such ambiguity in feedback, some deficiency in competency satisfaction is likely, as the quote from Jay earlier in this section indicates (see 5.4.1). When self-esteem is contingent on positive evaluation by others (ego-involvement), a sense of pressure, tension and instability is more likely to be felt (Ryan & Brown 2003; Brown, Ryan & Creswell 2007b). However, because people may go to great lengths to maintain positive feelings of worth (Ryan & Brown 2003), a Hero/Protector story may still be highly motivating.

#### **5.4.4 Discussion**

In this section I analysed the stories the participants tell themselves that provide a rationale for the work they do, justify their experience, and motivate them to keep doing what they are doing. I now discuss my findings in relation to the literature. My analysis contributes insight about the story as expressing intrinsic goals and self-transcendence values, its function in terms of needs satisfaction, the role of feedback, and the potential for the motivational story to be personally adaptive but ecologically maladaptive as a psychological threat coping strategy.

- Motivational story about 'doing good' in terms of impact on the natural world expresses intrinsic goal of community feeling and Self-Transcendence values.

This is in accord with Wright, Nyberg & Grant (2012) finding that the dominant story of sustainability managers in corporations was 'moral agents doing good', although they do not frame it in terms of intrinsic/extrinsic goal theory.

- Tension between intrinsic goals of motivational story and self-protection goals triggered by job insecurity

The tension that was identified in Jay's account is consistent with Grouzet et al (2005) work on goals. They explain that intrinsic and extrinsic goals appear to be organised in the mind in opposition to each other, such that when one is activated the other is suppressed, making it difficult for people to think about both sets of values at the same time, and to simultaneously pursue behaviours congruent with both these values. Wright, Nyberg & Grant (2012) do not analyse the experience of sustainability managers in terms of intrinsic/extrinsic values and goals.

- Motivational story with subtheme of achieving results

Wright, Nyberg & Grant (2012) also found 'achievement' to be a key theme in sustainability managers' experience as change agents.

- Motivational story with Hero narrative

Wright, Nyberg & Grant (2012) found a Hero narrative was a common theme with sustainability managers in corporations: doing good in the face of adversity, rejection and criticism. However, Rust (2008) questions conceptualising oneself as a hero trying to save the world, because what we need to save is ourselves: "if we allow ourselves to feel, crisis opens an opportunity for awakening fully to the present" (p167). She describes an alternative and

more adaptive Hero myth familiar to psychotherapists: slowing down, surrendering to despair, and living through darkness without fighting it. In this way we are connected into the world and into our bodies and respond to ecological crisis out of this understanding.

- Motivational story with Protector narrative

In Blackmore & Holmes (2013) study of environmental organisations, the organisation as protector of the natural world was a commonly used frame.

- Motivational story is a coping strategy to enhance autonomy

Wright, Nyberg & Grant's (2012) study of sustainability managers in corporations does not analyse the participants' experience through the lens of psychological needs, but the purpose of the story as a coping strategy to enhance autonomy is implied: "the development of narrative identity therefore provided a mechanism through which individuals could explain conflicting identities in seeking to promote environmental sustainability in their organisations" (p1469). Vignoles et al (2011) state that people have a number of means at their disposal to reconcile apparent inconsistencies in their sense of identity and to preserve a sense of self-continuity, including the construction of narratives to reconcile apparent inconsistencies across time and situations. According to Vignoles (2011), achieving a sense of coherence and purpose seems essential if one is to avoid descending into paralysing feelings of anxiety or hopelessness.

- Achieving results satisfies competency needs i.e. it is motivating

This is a core tenet of Self-Determination Theory (Deci & Ryan 2000).

- Link between competency need satisfaction and feedback: specifically feedback that affirms the individual's contribution is recognised and valued by others, feedback in the form of information from management that helps define what is to be achieved, and feedback about results that provides clear measures of success

This finding is supported by SDT, which states that feedback is required for competency needs to be satisfied (Deci & Ryan 2000). Environments can support competency by providing positive and constructive feedback (Weinstein & Ryan 2011).

- Feedback also associated with relatedness. Lack of feedback triggers feelings of resentment and lack of trust.

My findings add further insight to the role of feedback in needs satisfaction. SDT links it with competency and also autonomy because feedback can be given in ways that support or undermine autonomy. However, I found the link in my study was with competency and relatedness because of the way that lack of feedback impedes competency and can trigger feelings of resentment and lack of trust. Skinner et al (2003) regard self-pity as an emotion associated with threat to relatedness, which adds support to my finding. However, SDT states that people may go to great lengths to maintain positive feelings of worth (Ryan & Brown 2003), and this implies that even with deficiencies in feedback, the motivational story may still be highly motivating.

- Motivational story has a focus on positive

The positive and optimistic focus of the motivational stories is central to their function as a coping strategy to help withstand pressures and ease tensions and stress involved in working to influence and improve organisational practices. Actively believing that that it's not too late to make a difference and that one is making a meaningful and substantive pro-environmental difference, is what Foster (2015) calls 'willed optimism'. There may be

feedback that provides evidence that contradicts the belief, and in such instances a person can either accept or reject the evidence, with implications for the narrative of the story and its efficacy in enhancing autonomy, as well for its efficacy in promoting adjustments to the reality of the situation and for stimulating appropriate action. As Seligman (1991) says, cultivating optimism is helpful only when the future can be changed by positive thinking. When that is not the case “we must have the courage to endure pessimism” (p292). In the literature on emotion in organisations, such focus on the positive is a form of antecedent-focussed emotion regulation, specifically attentional deployment to call up other emotions (Grandey 2000). This is akin to Hochschild’s (1983) notion of deep acting. Deep acting, according to Hochschild involves deceiving oneself as much as deceiving others. This interpretation is consistent with Foster’s (2015) conclusion that willed optimism is a form of denial. However, there is also literature that finds that positive emotions (that need not necessarily be directed at environmental issues) are associated with greater engagement with pro-environmental behaviours in the workplace (see Russell & Friedrich 2015), although these individuals are employees who are not necessarily in the same situation as my participants, i.e. people oriented to pro-environmental values who have formal roles to influence pro-environmental practices in their organisation.

## 5.5 RELATIONSHIP WITH ORGANISATION

Subthemes:	(in)congruence of values/goals with the organisation Support, connection Oppositional dynamic: fight, competition, game, challenge, conflict Adaptation, compromise, acceptance, prioritising goals
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This higher order theme is concerned with the nature of the relationship between the participant and the organisation, with particular focus on compatibility and congruence between values, goals and capacities. The main difference between the participants was in

the degree of incongruence expressed and in their approach to dealing with that, the amount of support they felt they received, and how comfortable they were about being in conflict with colleagues.

### 5.5.1 (In)congruence

There was one participant, Heather, whose account differed from the others in that her values, goals and approach most closely fit those of the organisation she works in. Heather had made a decision to work in the job and sector she was in at the time of interview, specifically for reasons of compatibility as a consequence of negative experiences in a previous job where a clash in values adversely affected her health.

*Heather: I chose this sort of area to work in because I didn't want to have that sort of constant conflict... I think if I was doing something where I felt it was completely incongruent with what I believed as a person I wouldn't be able to carry on doing it you know so yeah so I have to have my job I have to fit with my personal values definitely*

For the other participants however, some perception of incongruence was evident, as the goals of the participant did not fully match those of their colleagues, managers or the organisation as a whole. For example, Rosemary disagrees with the approach others in her organisation are taking with regards to devolving ownership and responsibility for parks and other natural 'assets' to local organisations:

*I just get massively frustrated at the irresponsibility of... allowing town and parish councils or other groups that are inexperienced at managing assets to come and take assets that they may not be able to succeed with or set themselves up to fail.*

Frustration is an emotion that all these other participants reported feeling at times. From the perspective of Self-Determination Theory, feelings of frustration are an indication that a person's competency needs are being thwarted (Pryzbylski et al 2014), in other words they are not having their desired effect on the organisation or not fully attaining their desired work goals. The following quote shows that incongruence of personal values and goals with the organisation can also be a source of inner conflict and ambivalence (*not entirely*

*negative*). Robin was talking about his organisation building houses on greenbelt land as a way to redress shortages in affordable housing, and goes on to say:

*It's not entirely negative for me, we're not just building houses to sell and make money for our shareholders so, I probably wouldn't work for an organisation like that but em it's still there, a conflict in what's happening.*

Conflicts in Rosemary's experience is demonstrated by these statements:

*It's probably only in the job right now that I start to feel that who I am as a person and what I'm doing and what I also believe in for the future actually comes together.*

*I'm working in the environment in an organisation that is doing exactly the opposite of what I believe to be right a lot of the time.*

There is a sense of inner coherence conveyed with the first extract yet there is also a perception of high incongruence with the organisation (*opposite*).

Indications of ambivalence can also be interpreted by studying language patterns, namely shifting between referring to the organisation as 'we' and as 'they' in the same sentence, as is demonstrated in this example:

*Rosemary: We don't manage it we just say right we'll we'll just cut it down or we'll flatten it or and our design processes aren't sophisticated enough to say you know there's hedges there, there's this sort of undulation in the ground, they want to just give themselves sort of a complete clean slate approach all the time*

Frustration, inner conflict and ambivalence are outcomes for participants who perceive there to be some incongruence of personal values and goals with those of the organisation.

### **5.5.2 Oppositional dynamic**

All participants except Heather used oppositional metaphors when talking about their relationship with the organisation, suggesting that perceptions of incongruence involve some experience of opposing forces. Rosemary for example uses military metaphors such as *defend the position, holding that ground, head above the parapet, and battling*. Robin uses the phrase *I felt a bit under personal attack*. These metaphors indicate a Fight cognitive frame where the relationship with the organisation (or a particular aspect of it, such as a

relationship with a colleague) during a particular incident is conceptualised as a hostile encounter.

There are some examples where the relationship of opposition with the organisation was conceptualised as a game or competition rather than a fight. For example, although Robin talks about *picking battles* he also uses terms like *trumps* and *pitch* as well as using the game metaphor consciously as in this next extract. Note also the exertion of force indicated by *push things*.

*So its kind of play a bit of a game in my own head really around how far can I push things with certain specifications.*

Robin describes experiencing a sense of challenge:

*I'd quite like to prove it works. So I kind of I see it as a challenge.*

The challenge that a game presents is less hostile and aggressive than a fight. With a challenge, a person perceives adequate resources for dealing with the situation whereas with a threat the perception is that the danger exceeds their personal resources (Weinstein & Ryan 2011). The Game frame was more salient in Robin's account and this might be because he has greater organisational support - he works with a self-selected steering group of senior managers. Nevertheless, note how he refers to them as *allies*, which is a military metaphor. Perhaps this signifies a recognition that there is potential for the challenge to turn into a threat.

The significance of the oppositional dynamic is in its consequences for satisfaction of relatedness needs, which is discussed in the next subsection 5.5.3, and competency needs, which is discussed in 5.5.4. Also, it is a source of tension and as such requires some kind of negotiation. This is explored further in section 5.9.

### 5.5.3 Support and connection

My findings suggest that pursuing competency in an organisational context of incongruence has implications for satisfaction of relatedness needs. In the following quotes from Rosemary and Ash we can see that unpopularity can be a consequence of conflict:

*Rosemary: Knowing that sometimes my opinions and my approach will clash up against other peoples but trying to find the confidence in myself the personal confidence to hold that. And just be like well you don't always have to be liked.*

*Jay: Because I've had to be quite strong in all this and become really quite unpopular at first and say no you can't do that, no you can't do that*

Whilst they appear to accept this consequence, it was still not easy for them: *trying to find the confidence, had to be quite strong*. Other participants were even less comfortable with being perceived negatively. I show this with quotes from Robin and Ash. Robin prefers to avoid conflict, saying:

*I'm not very confrontational generally... my usual process is to build general support either in the team or the organisation for any change or new way of doing things*

Ash explains his role as:

*But being seen as a kind of agent of change in a kind of positive credible way rather than as- a stirrer, or you know trouble-maker*

Nevertheless, despite his attempts to be perceived positively by colleagues, Ash's relatedness with colleagues is not strong:

*I work with lots of people across the organisation but their priority is saving a million quid for the Property budget or you know they'll do the carbon stuff but we're not peas in a pod or birds of a feather or anything you know so they're not really in the same place as me.*

This sense of being different to others in the organisation is also felt by Rosemary:

*People say 'oh not everyone's got your conscience Rosemary'*

A sense of isolation could be detected in the accounts of most participants, to varying extents. With Robin there seems a lack of intimacy and affection:

*If I've been annoyed at people at work for whatever reason I have to spend some time with people that actually I value, I spend some time with friends or family um yeah people I want to spend time with, at work you're forced to in some ways.*

For Hazel, there is an indication of uncertainty about authenticity in the relationship she has with colleagues:

*And I mean I also have an effect, if I walk into a room then its very rare that someone is going to tell me that they don't like the environment, you know, I think there's a bit of guardedness around what people will say. They know who I am and what my perspective is and they certainly don't want to offend me or create an enemy so they may tone down whatever true value or belief that they have because I happen to be the one asking. So there may be other answers if someone who wasn't the Environment Department coming to ask about the environment.*

Her use of *guardedness* indicates she thinks colleagues perceive her as posing a threat, the scale of which is then intensified with *enemy*, a metaphor that recalls the Fight or Hostile Encounter frame discussed above. At the same time, relatedness is important to Hazel – specifically relatedness in service of competency i.e. being effective, as these two extracts indicate:

*So what helps is um time. Time is a very good friend. Building rapport and having successes. You know, doing things that work for people is a huge help.*

*I wanted them to know that I was going to rely on them that I needed them as part of the design process*

Insufficient support from line managers and/or colleagues is an issue that emerges in the accounts of Rosemary, Ash and Jay. In this quote from Rosemary it compounds her sense of isolation:

*Um so one of the challenges for me in taking on the new position is being alone in it actually so not really having anywhere to take those feelings of frustration. You know my immediate boss is very absent he's very very involved in all sorts of other things so we get very very little support um and with the team beneath me its not right for me now to, I've had to, I was their team leader before but quite close with these other managers and I've had having to stretch that gap to be able to do the leading. So yeah it's a lonely place actually.*

With some sense of isolation in their own organisations, Jay, Rosemary and Ash explicitly acknowledge the crucial importance of the emotional and practical support that close relationships with external partners (in their case, third sector environmental partners) give them. Where the organisation fails to support satisfaction of relatedness and competency

needs, close relationships with these partners seems to help redress such deficiency, and can be regarded as an adaptive coping strategy. Jay meets his competency needs not through working with managers in his own organisation, who he regards as *mainly incompetent*, but through partnership working:

*Jay: So what I do is I work with outside bodies which is (name of organisation) which I've developed a fantastic working relationship with my lead advisor (name deleted) and we do stuff. So from that stuff we get results that we can write reports about*

Jay refers to the external partner as *my mate*.

*Jay: we've got a really good working relationship his kids come down and draw pictures of me and this that and the other and we get on really well*

The following quotes show the beneficial nature of these external relationships:

*Ash: Um, I've found it increasingly, helps keep me motivated around the sustainability work working with third sector partner organisations on projects. And part of me saying lets work as a team, part of it is about bringing effective kind of project and good relationships but part of it is my own, I like it on a personal level and it helps keep me motivated to feel I'm working with others in the same way... I think I may have mentioned that to one or two of them that I enjoy working with them in that way. They don't see it in quite the same way as generally they're a bunch of people working together but so yeah that helps me.*

*Jay: Yeah without that release (working with partner) it'd be very difficult route, nigh impossible really*

*Rosemary: And you know um so I've been really really privileged to be influenced by some of those people who've given me a bit of confidence*

The importance of emotional and psychological support from third sector environmental partnerships and their role in helping satisfy relatedness needs were not discussed in Wright, Nyberg & Grant's (2012) study. The practical role of external partnerships to support effectiveness and hence meet competency needs is more obvious.

Talking to like-minded friends is another adaptive coping strategy used by the participants for meeting relatedness needs and for releasing stress and frustrations from work. As Hazel says:

*For me I'm a big talker so I do talk through issues and certainly with people that have similar values as I do is helpful*

#### 5.5.4 Compromise and acceptance

Participants describe prioritising to work within capacity and be more effective in achieving results, thus helping to satisfy competency needs. Connected to this are themes of compromise, accommodation (*embrace*), adaptation and acceptance (*I'm fine with*) of the reality of the situation they are in. However, note the use of military metaphors in the quotes from Ash and Hazel (*battle, not the hill I want to die on*). This suggests that for them, compromise and acceptance is not without tensions.

*Ash: because we need to make a difference with the capacity we've got so lets go where the doors are open... you know you have to accept sometimes- you know you wont win every battle, and accept that you lose some.*

*Hazel: I've changed my approach to embrace that culture which moves slowly... so I can see that um I'm fine with the way that things are progressing. It's not the hill that I want to die on. They're going to move slowly, I will work at their pace*

*Robin: I'm pushing for the environmental side but also understand some of the other pressures and compromise on some of those things... don't think we can go from a standing start right to where I want to be and that I see as a gradual improvement process.*

In describing his process of conforming to the organisation, Ash uses terms such as *I've become* which indicates a process on the level of identity. I explore the theme of identity further in the next section (see 5.6).

*I think after 20 years in local government I can't help feeling I've become more local government officer than any- than anything else*

*So my initial sense of being someone from the outside working on the inside I try to retain a bit of but I, probably more, become a product of the system around you really*

*You just you know if I was a teacher you sort of become you can't help, you're changed by, and grown into something*

But with compromise in service of competency, there is a possibility for self-doubt. Talking about the decision he made as a younger man to work *within the system*, Ash makes the following statements:

*Ah occasionally I wonder I think about it less now but occasionally sense of whether I did the right thing. Harking back to a sense, I was leaving university and I remember reading stuff by Jonathan Porritt... whether you can be part of the system and*

*change it from within... And another view saying no it's like everything else that starts outside the system as a force for change all of these things they just get absorbed and you know you'd have been out there on the barricades and instead they've got you in a nice professional job sitting in an office maintaining the status quo broadly*

*But sometimes you know you can sit there yourself and wonder does anybody give two hoots, is it really making any difference, you never get anything back really objectively that tells you. Sometimes you wonder like am I actually doing anything?*

In the previous section (see 5.4.1), I noted how lack of feedback was affecting competency and relatedness needs and triggering feelings of resentment (see 5.4.1). In this extract, lack of feedback is amplifying Ash's feeling of self-doubt. Skinner et al (2003) regard self-doubt as an emotional response to threat to competency needs, and this example supports that (*is it really making any difference*). But I find self-doubt also points to some deficiency in autonomy need satisfaction. According to Skinner et al (2003), acceptance and compromise are strategies to cope with challenges to autonomy. This works if the motivation for the compromise behaviour is sufficiently internalised to be perceived as volitional. Some internalisation is indicated in the phrase *I've changed my approach to embrace that culture* in the extract from Hazel above. As noted earlier, the use of military metaphors suggests some conceptualisation of tension in experience. By definition, compromise involves giving something up: something is lost or sacrificed, which may account for tensions in autonomy satisfaction illustrated in the quote from Ash. The etymology of the term *harking back* by Ash in the earlier quote is interesting to consider: it originally referred to hounds returning along a track when the scent has been lost, till they find it again (OED Online 2015). One interpretation that can be made is that the decision on leaving university to work *within the system* was the point when the full scent of inner coherence was last smelled.

### **5.5.5 Discussion**

In this section I analysed and discussed the nature of the relationship between the participant and the organisation, with particular focus on congruence of values and goals,

and how that manifests for the participants. I now discuss my findings in relation to the literature. My analysis contributes insight about how incongruence manifests and is responded to with coping strategies of seeking external support and pragmatic compromise, and how tensions can arise between competency, autonomy and relatedness needs satisfaction.

- Evidence of incongruence between most participants' values and goals and those of the organisation

Within organisational studies, the People-Organisation fit literature suggests that individuals are most attracted to those organisations that are consistent with their values (Ciorcirilan 2016). This was true for one participant who chose to join the organisation for that reason but it does not apply to those participants who deliberately chose to work in organisations in order to change them from within. Hoffman (1993) says there are three options for environmentally minded employees who perceive lack of fit: (i) behaving in ways that are inconsistent with their personal characteristics but consistent with the organisational culture thus creating internal tension and poor performance, (ii) to exert influence on the organisation's environmental performance in order to make it congruent with their own values, or (3) to leave. Neither, according to Hoffman, is optimal for the performance of the organisation. However, I would argue that depends on what is regarded as good performance. In my study, 'good' is not optimising organisational performance (which could mean maximising profits at the expense of the natural environment) but in optimising the employee's performance in influencing pro-environmental practices.

- Frustration is indicator of incongruence (lack of fit) with organisational goals and values

This is consistent with SDT. Weinstein & Ryan (2011) report that autonomy is supported in environments that encourage behaviour congruent with the individual's desires and values, rather than those that serve others' interests. Pryzblski et al (2014) class frustration as a sign of thwarted competency. The complementary fit perspective in organisational studies states that when employee and organisational values are congruent, employees are in an environment that is able to meet their needs (Spanjol, Tan & Tam 2015). Frustration is an emotion that all these other participants reported feeling at times, and this echoes Meyerson & Scully's (1995) research on tempered radicals.

- Ambivalence is an indicator of incongruence, discerned through micro-discourse analysis

Ambivalence showed up in my study as feelings about the organisation. According to Ashforth et al (2014), ambivalence appears to be ubiquitous in organisational settings. Individuals may not be conscious of their ambivalence, nonetheless it may affect them. The micro-discourse analysis method I used enabled ambivalence to be discerned in participants' accounts, for example in the shift from 'we' to 'they' in the same sentence. Alvesson & Wilmott (2002) discuss pronoun use in terms of identity regulation, where the employee is an identity worker, urged by the organisation to incorporate managerial discourses into narratives of self-identity and embrace the notion of "we". Ashforth et al (2014) report that ambivalence can be functional, dysfunctional or both. Myerson & Scully (1995) concur, suggesting that ambivalence can be a source of strength, vitality and authenticity if complexity and paradox is accepted. It is not possible to tell from my data whether this was the case for my participants.

- Inner conflict is an indicator of incongruence

Both Wright, Nyberg & Grant (2012) and Myerson & Scully (1995) find that change agents in organisations experience inner conflict.

- Isolation is an outcome of incongruence

This finding is also consistent with previous research into change agents. According to Myerson & Scully (1995), loneliness is a common experience for tempered radicals.

- Oppositional language is expression of incongruence with the organisation

Neither Wright, Nyberg & Grant (2012) nor Myerson & Scully (1995) analyse their data from a frame and metaphor perspective, and I did not find the use of oppositional language discussed as an expression or indicator of incongruence in any of the other related organisational studies literature I reviewed (e.g. Hoffman 1993; Alvesson & Wilmott 2002; Spanjol, Tam & Tam 2015).

- Oppositional dynamic manifests as fight and game/challenge. With game, there was more organisational support but still used Fight metaphors. Potential for challenge to turn into threat

This finding relates to how tensions are experienced, and highlights the difference between a fight and a game/challenge. Weinstein & Ryan (2011) explain that with threat (i.e. Fight frame) the perception is that the danger exceeds one's personal resources, whereas with a challenge, the perception is that there are adequate resources to deal with the situation.

This appraisal theory is consistent with my findings. However, I find through use of metaphor and frame analysis that there is recognition (on a possibly nonconscious level) of the potential for a challenge to turn into a threat. Macy (1993) posits that conceptualisation of the world as a battleground is a common worldview shaping the relationship of humans with the world.

- Pursuing competency in an organisational context of incongruence has consequences for relatedness, and only some participants were willing to suffer those consequences or take that risk

This is supported by Brown & Cordon (2009) who state that people are highly motivated to avoid social exclusion and loss of connection.

- External partner relationship helps satisfy competency and relatedness, and is important for psychological support

Weinstein & Ryan (2011) report that many workers experience low need satisfaction on the job, and that need satisfaction plays a role in stress regulation and is associated with lower burnout and higher vitality. They state that relatedness need satisfaction is widely recognised as one of the most important buffers to stressful responses. This supports my finding about the importance to my participants of external partner support. Indeed, seeking social support has been included as an adaptive coping strategy in climate psychology literature (Reser & Swim 2011; Moser 2007).

- Compromise in service of competency is a pragmatic coping response to incongruence

This is in accord with Hoffman (1993) who identifies changing to fit the organisation as one option for employees who perceive lack of fit. Ashforth et al (2014) report that compromise as a response to ambivalence is typically conscious and intentional, and tends to be proactive. This is consistent with my findings, which show compromise is a deliberate pragmatic choice. Wright, Nyberg & Grant (2012) also found that for sustainability managers in corporations, achieving environmental gain requires pragmatism.

- With compromise and lack of feedback can come self-doubt, which points to some deficiency in autonomy satisfaction

Wright, Nyberg & Grant (2012) and Meyerson & Scully (1995) highlight the risk of co-option for change agents who compromise to avoid marginalisation and isolation. In my study, the risk of co-option was indicated by one participant who reported occasionally feeling self-doubt about what he was actually achieving, fuelled by lack of feedback. Skinner et al (2003) regard self-doubt as an emotional response to threat to competency needs. Whilst I found there to be a link between self-doubt and competency, I also found that self-doubt points to deficiency in autonomy satisfaction. Collinson (2003) states that feeling compelled to conform out of fear of job loss can erode sense of autonomy and self respect. Job insecurity was part of the organisational context for two of the participants, which led to pressure to achieve results. However, establishing a direct link between fear of job loss and conforming or compromising is not possible from my data.

## 5.6 IDENTITY SALIENCE

Subthemes:      Expression, suppression, projection of environmental identity Credibility, professionalism, pragmatism v 'deep green' identity Realism-emotion duality
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This higher order theme concerns sense of self. As explained in the Literature Review (see 2.4.2) we are thought to have multiple identities, hierarchically arranged, and the salience of any particular identity is dependent on context, on interactions with others that affirm or reject the identity, and on personal commitment to the identity. Identity is thought to mediate the relationship between values and behaviour, and a sense of self as part of nature has been found to be a strong predictor of pro-environmental behaviour (see 2.4.1).

In the previous chapter, I identified compromise as one strategy that participants used to manage incongruence with their organisation and increase effectiveness in achieving results. Another strategy, which I explore now, is reducing saliency of 'deep green' identity.

Most participants expressed beliefs about the kind of self-identity to present at work in order to be effective in influencing their colleagues and achieving desired results, and they appeared to act in line with these beliefs. With all but one participant, I discerned some tension with regards to expression of identity. The exception is Heather, who as I explained earlier is in a position of high compatibility and congruence with her organisation. Heather is chief executive and as leader she aims to create an organisational culture where everyone (herself included) can *be themselves*:

*I'm trying to get an environment where em every single person can participate, they can contribute, they can be themselves um and they help set the tone as well*

For the other participants who have some incongruence with their organisation, tensions in accounts with regard to expression of identity appear to arise largely out of a concern to fit in with social norms in order to be effective in influencing their colleagues.

Tensions in identity manifested as dualities between a 'deep green' identity and an identity that is associated with being pragmatic, credible and professional; and between reason and emotion. These dualities are closely related. I end this section on identity with an analysis of identity expression and suppression in terms of needs satisfaction.

### **5.6.1 Deep green v pragmatic/professional**

Ash, Jay, Robin and Rosemary refer to a 'deep green' identity. With Ash, Jay and Robin I found indications that this identity was conceptualised as incompatible with being pragmatic

about environmental issues. For Ash and Jay being pragmatic was further associated with professionalism and credibility.

In the interview Robin talks about the intrinsic value of nature and also says *I think we're part of the natural world and shouldn't really be controlling it*, which are views consistent with a 'deep green' ecological ethic (Curry 2011). But he then follows this statement with *but we are and that's where we're at*, which indicates a pragmatic perspective. This perspective is more fully expressed in the extract below where low commitment to a 'deep green' identity is expressed (*I'm not a deep green kind of person probably*). As observed in the section 5.5 Relationship with organisation, Robin's concern for a non-confrontational relationship is also evident (*not just going to force green ideas down their throat*).

*Robin: So um I think I'm perceived quite well in terms of how I approach projects and I'm not a deep green kind of person probably, I wouldn't describe myself as that. I'm probably relatively pragmatic and I'm pushing for the environmental side but also understand some of the other pressures and compromise on some of those things... I guess what I'm saying is hopefully through working with me they'll see that I'm not just going to force green ideas down their throat.*

To Robin, being pragmatic appears to be incompatible with being 'deep green'. This conceptualisation also shows up in Ash's account, which I demonstrate with these extracts:

*I think the idea of a kind of deep green where you get into an almost spiritual sense of it, of every species has its right to life and should be respected and so on um I have some sympathy with that view*

*I have some sympathy with that kind of deep green kind of ecological perspective but I struggle to know how we could live in a- you know this, this kind of local sol-green roofs and bees and that sort of stuff, pesticide removal. There's a huge challenge around feeding the population*

Ash links the pragmatic identity with credibility and professionalism, and contrasts it with a 'deep green' identity:

*I've made a priority in my role getting the ear of (senior executives) which requires get- being credible*

*So early days fresh out of university very clear I'm not going to wear sandals bring lentil sandwich to work and have a beard. So being seen as being credible and professional*

Both Ash and Robin have suppressed the salience of the 'deep green' identity in their psyche, in favour of an identity they perceive as more effective for achieving results (i.e. that is more likely to satisfy competency needs). Jay also conveys this, as I discuss next. Jay talks about having to re-apply for his own job when the organisation was restructuring and cutting jobs in his department. In the extract below there is an association between competency (*capable*), professionalism, and smart business wear. His everyday outdoor work clothing is by implication 'not-professional':

*They (managers) see me as well I know exactly how they see me now as I created an image for them. I em wear this in the day (referring to ranger work clothing he is wearing) so you'd expect me to go for interview wearing this. But I didn't I wore a suit and a tie and I looked like a businessman... put that professional image across... so I'm capable of doing all these things that are required on this and I can be capable of representing the organisation.*

### 5.6.2 Reason v emotion

The conceptualisations discussed above that position 'deep green' in a dualistic relationship with professionalism and effectiveness, is mirrored in tensions between emotion and reason. These can be discerned in the accounts of Jay, Rosemary and Robin. With Jay and Rosemary it manifests at the level of identity, whereas Robin does not use language suggestive of that. For this reason I analyse Robin's account in the next section 5.7.2 in the context of using either reason or emotion as the basis for organisational decision-making.

Both Jay and Rosemary refer to shifts in the salience of particular identities, and with both there appears to be a duality that has been created between emotion (*sensitive, emotional*) and reason (*knowledgeable, realist*):

*Rosemary: (I) went from someone who was sensitive (about the natural world) to someone who's more knowledgeable*

*Jay: It used to have a much more emotional impact on me whereas now I'm a bit more - slowly - I'm a bit more of a realist because its um*

This duality may actually be a dualism in Jay's case, which is indicated by the way he goes on to derogate emotion. I show this with the extracts below where Jay is simultaneously objecting to the term 'bunny hugger' when used against himself (*there's no reason to put people down*) and yet also uses the term himself to derogate others. This could be interpreted as a psychological defence of projection where the deep green identity he has rejected in himself is projected onto denigrated others:

*I've been called that (bunny hugger) in the past by the way when I first started, which I annoyed me a little bit. There's no reason to put people down*

*Lots of people who're into conservation are a bit happy clappy, hippy trippy, tree huggy*

*These people Christ they love every blade of grass and they want every blade of grass and every creature on that*

*I don't watch Countryfile because they annoy me a little bit because they're a bit mamby pamby... they do all this focussing on stuff and oh look at the birdie in the box, and we see the birdie in the box and oh the birdies died in the box. And its like yeah that's nature mate, that*

Interpreting Jay's account as projection and derogation, which are defences to counter threat to inner coherence and autonomy from a suppressed identity, is consistent with the findings of Skinner et al (2003) that associate threats to autonomy with projection, opposition and venting. Whether Rosemary also conceptualises the relationship as a dualism is unclear but she does seem to favour logic and reason as the basis for decision-making, which as described above comes from her developing identity as a knowledgeable person.

*I've thought it through pretty logically, I then want to make my logical point and right ok if we need to have an intellectual argument around this, lets go... You know I'm pretty sure I've got a relatively robust case here, what's yours? (laughs)*

### **5.6.3 Identity and needs satisfaction**

In conforming to the culture of the organisation, Ash is hoping to be taken seriously. An identity that may jeopardise credibility or lead to exclusion, threatens both competency and relatedness needs satisfaction. Suppression of such an identity - a 'deep green' identity - can therefore be interpreted as an intentional conscious coping strategy. But as we can see from

Ash's account, the strategy of suppressing a 'deep green' identity is not effective with everyone in the organisation:

*I could, I could call myself Ash Corporate, you know and I live at number 1 Corporate Street Corporate Town and I love doing corporate and just talk about- and he still wouldn't believe I was anything other than Friends of the Earth in residence and he's just got that despite my best efforts not to you know wear a green shirt and uh open toed sandals or try and speak with too much passion or emotion about why we need to act, which is why I find it difficult-because I so consciously shut that out.*

Note the effort involved in suppression, which is indicated by *try*, *best efforts*, and so *consciously*. This is consistent with the research that finds that suppression of strong emotion takes mental and physical effort (Rogelberg 2006). With suppression there is something being given up, there is loss. In Ash's statement *which is why I find it difficult-because I so consciously shut that out*, my interpretation is that the difficulty he feels at his strategy not working is because of the effort involved in sacrificing a part of himself. Recall his use of the term *harking back* (see 5.5.4) that I suggested may be an indication of loss with consequences for inner coherence.

Not only does suppression of identity in order to fit in not guarantee competency, and have consequences for autonomy, it may also not fully satisfy relatedness needs either:

*Ash: I work with lots of people across the organisation but their priority is saving a million quid for the Property budget or you know they'll do the carbon stuff but we're not peas in a pod or birds of a feather or anything you know so they're not really in the same place as me.*

Ash makes a comparison between the strength and salience of his 'green' identity with that of his environmental sustainability colleague in the organisation:

*Ash: But I know there are peers here there's a Unison officer who's much more the green officer who we work with on some stuff now, and um he's much more of an evangelist... And I think I pick up the sense that kind of not critical but would do things very differently*

In choosing the term 'evangelist' Ash is using the conceptual metaphor ENVIRONMENTALISM IS RELIGION<sup>20</sup>. Elsewhere in the interview Ash uses this metaphor again with the words: *preach, devotee, mantra, cult*. I did not enquire into his views on religion in the interview, but it seems quite clear that he does not see himself as part of a group that has strong environmental convictions and commitment to the cause.

A link between identity and relatedness can also be found in Rosemary's account. She states her awareness that expressing a 'deep green' identity in an organisational context low in congruence (*not everyone's got your conscience*) may jeopardise relatedness:

*The more they get to know me- well the more I get to know me, the deeper green I'm becoming! (laughs)*

*How strong are my opinions I can express... in terms of... having to mediate opinions about it. So for example when people say oh you know not everyone's got your conscience Rosemary, oh you know better not look like I'm a right greenie (laughs) but sometimes I take that risk*

From these extracts it seems neither suppression nor expression satisfies all three basic needs simultaneously: either strategy creates some conflict between needs satisfaction. As discussed in the section Relationship with organisation (see 5.5.3), some participants countered deficiencies in relatedness with colleagues in the workplace through relationships with external like-minded partners. With two participants, there was what could be interpreted as a projection or 'out-sourcing' of the suppressed identity onto these external partners who are perceived as being able to be and do what they themselves feel unable to:

*Rosemary: I have been able to generate much more influence because of that (partnership) and potentially feed some information out to allow people to come back in and say things on essentially my behalf*

*Ash: I work very closely with the (name of organisation deleted) on food and they're a bunch of real radical greens who you know their previous lives were arrested by police at road demos and stuff and very committed kind of purist very consciously ideologically driven whereas mine's more up in the attic a bit*

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<sup>20</sup> Conceptual metaphors tend to be written in this style in the literature – see 2.6.1

With Rosemary the identity is not suppressed or compartmentalised in the same way as for Ash but is extended beyond her physical body in a cognition that still somehow belongs to her in an extended cognition. According to the thesis of extended cognition, features of an agent's physical, social and cultural environment may partially constitute that agent's cognitive system (Wilson & Foglia 2011). I return to discuss Ash's conceptualisation of *the attic* in the next section on emotion (see 5.5.1).

#### **5.6.4 identity shift and organisational influences**

Ash and Rosemary made observations about the influence of organisational forces on their identity.

*Rosemary: Yeah so we're trying to change a system that's also trying to change us. And there's tension there*

Ash talks about the *slow inevitable irreversible decline and retraction* of natural space by the powerful forces of economic development. This conceptualisation seems to mirror the decline in salience of his self-identity as an environmental activist outsider working within the system - a decline that he seems to perceive as inevitable (*can't help*) as indicated in these quotes:

*You can't help, you're changed by, and grown into something*

*So my initial sense of being someone from the outside working on the inside I try to retain a bit of but I, probably more, become a product of the system around you really*

#### **5.6.5 Discussion**

In this section I considered the identities that are salient for the participants as they work to influence pro-environmental decision-making in their organisations. I now discuss my findings in relation to the literature. My analysis contributes insight about identity suppression as a coping strategy activated in response to incongruence between the individual and organisation and threats to relatedness and competency needs. However, the

strategy does not necessarily work completely and is likely to leave some deficiency in satisfaction of relatedness needs, and may also affect inner coherence and thwart autonomy, creating conflict between needs satisfaction. I also identify an alternative to suppression, which is projecting or 'out-sourcing' the identity to external environmental partners.

- Reducing salience of 'deep green' identity is a coping strategy. It is enacted in service of relatedness, which is in service of competency. But the strategy doesn't work completely – likely to leave some deficiency in relatedness and doesn't convince everyone in organisation

Suppressing or reducing commitment to a 'deep green' identity in order to fit in with colleagues (relatedness) and be in a better position to influence them (competency) is consistent with SDT, which states that people tend to internalise the values and regulations of their social groups, facilitated by feelings of relatedness and competency (Deci & Ryan 2000). Breakwell (1986) provides a similar explanation, stating that individual values cannot be independent of social stereotypes, and that threat arises when the individual learns that a new social position carries a negative social value. Compliance, Breakwell says, is an interpersonal strategy that entails 'playing the role' of accepting behavioural prescriptions. It can mean the threatened person gains social approval as a consequence. The finding also relates to Stoll-Kleeman et al's (2001) explanation of the adaptation function that helps mediate between self and social context. This function is dependent on forming positive associations with others (relatedness) and is hedonistic in that it serves the purpose of increasing satisfaction or pleasure and avoiding punishment or pain (p111). As Brown & Cordon (2009) explain, people are highly motivated to avoid social exclusion and loss of connection. The literature on identity threat classifies responses in different ways. In Breakwell's model, reducing saliency is a revising of the identity structures on content or

value dimensions. In Vignoles (2011) list, it would be an example of changes in group identification, and affirming/enhancing other aspects of self-image. For Petriglieri (2011) it is a form of identity deletion. This response type targets the threatened identity and aims to restructure identity to make it less of an object for potential harm.

- Suppressing identity involves sacrificing a part of oneself, with potential consequences for inner coherence thus thwarting autonomy

This finding is supported by Petriglieri (2011) who cites Pachankis (2007) in claiming that concealment of identity has consequences for individual with feelings of inauthenticity. Hochschild's (1983) work on emotion may also be relevant here even though the participants are not engaging in emotional labor per se. According to Hochschild, emotional labor requires one to be incongruent with the self, which she regards as an inherently detrimental condition for employees. This process of sacrificing one's true emotions is analogous to sacrificing an identity. Wright, Nyberg & Grant's (2012) research with sustainability managers found that sacrifice of material rewards or principles for the greater good was a key theme in their experience. It is implied but not explicitly stated that the development of a narrative to explain conflicting identities is how their research participants enhance inner coherence (see Motivational story 5.4.4).

- Suppressing identity takes effort

Breakwell (1986) concludes that living up to what you perceive to be the expectations of other people can be an arduous business, which supports my finding. It is also consistent with the research on emotion that finds that suppression of strong emotion takes mental and physical effort (Rogelberg 2006).

- 'Deep green' identity perceived in opposition to professional, credible, pragmatic identity.

The salience of a pragmatic professional identity is consistent with Wright & Nyberg (2015) work on sustainability managers in corporations, who identified 'rational manager' as one of the key identities enacted. The others were 'green change agent' and 'committed activist', but neither of these identities are defined by Wright & Nyberg as explicitly expressing a 'deep green' ecological ethic (Curry 2011; see Fig 4.1 for operational definition) and therefore do not map onto the 'deep green' identity referred to by my participants. Wright & Nyberg (2015) state that, "confronted by the discourses of 'professionalism' and 'productivity', they (some interviewees) found the identity of the rational manager not only more appropriate but also liable to prove politically effective in convincing others of the merits of pro-environmental action" (p131). However, I found that the strategy of suppressing a 'deep green' identity in favour of a 'pragmatic professional' identity may not be effective with everyone in the organisation. The association of the pragmatic professional identity with credibility is consistent with Ashforth & Humphrey (1995) who explain that rationality has become institutionalised in the form of 'norms of rationality' such that organisations must at least publicly conform to these norms to be perceived as legitimate.

- A perception of reason-emotion duality at the level of identity

There were indications of tension between emotion and reason, which manifested at the level of identity with two participants. There is a link between emotion and 'deep green' identity, and this is conceptualised in a duality with reason and rationality. Reason-emotion dualism is a core component of the dominant cultural worldview of the societies in which the participants live (Midgley 2003). One participant used the conceptual metaphor ENVIRONMENTALISM IS RELIGION a number of times to make a distinction between himself and more 'green' colleagues. This is consistent with Wright & Nyberg's (2015) finding that

one of the organisational discourses is climate change as an ideological battleground.

Sustainability managers may hold a belief that “efforts to alter corporate behaviour could easily be thwarted by emotional appeals or perceptions of being overzealous” (p127). I

discuss reason-emotion duality further in 5.7.3.

- Projection and derogation is a defence to counter threats to autonomy from suppressed ‘deep green’ identity

This is consistent with SDT research. Skinner et al (2003) associate threats to autonomy with projection, opposition and venting. Rust (2008) explains that guilt about one’s own environmental behaviour is often projected onto environmental activists who are then derogated and derided.

- Projection of threatened ‘deep green’ identity to external partners, or ‘out-sourcing’ it in an extended cognition.

I did not find this specific finding reflected in any of the literature I reviewed, although projection is a recognised defence mechanism to ecological crisis (Randall 2005; Rust 2008). Projection of identity onto external partners who can then enact and express it in ways that the participant cannot, could be interpreted as an example of employee resistance and subversion of organisational forms of control (Alvesson & Wilmott 2002).

- Shifts in identity result from process of being changed by and becoming a product of the organisation. Tension between trying to change a system that is trying to change the individual

This finding reflects the tension identified by Wright, Nyberg & Grant (2012) and Meyerson & Scully (1995) for change agents and tempered radicals as ‘outsiders within’ experiencing the organisational forces of assimilation and co-option. It is also in accord with Alvesson &

Wilmott (2002) who regard identity regulation as a form of organisational control, Collinson (2003) who states that organisations not only produce products and services but also people, and with Hoffman (1993) on the options for employees of changing to fit the organisation or changing the organisation to fit oneself. Pauly (1995) observes that lots of small compromises that are hardly noticed can over time accumulate into large shifts away from the baseline.

- Decline in salience of identity as environmental activist is conceptualised as inevitable, mirroring perception of decline of natural places by powerful forces of economic development as inevitable

This finding highlights the link between inner and outer experience, between the psyche and the social. The ecopsychology literature (e.g. Totton 2011; Buzzell & Chalquist 2009; Rozak, Gomes & Kanner 1995) and various philosophers (e.g. Midgley 2003, Plumwood 1993) and environmental writers (e.g. Muir 1938; Macfarlane 2015; Monbiot 2013) also recognise this connection.

## 5.7 ENGAGEMENT WITH NEGATIVE EMOTION

Subthemes:	Expression, suppression, avoidance of negative emotion Reason-emotion dualism
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This higher order theme focuses on how the participants' regulate and manage difficult emotions. Emotions have a central role in the stress response, and are sources of information guiding healthy self-regulation of behaviour (see 2.5.4). The analysis looks at two aspects: emotions about ecological crisis, and reason-emotion dualism in the organisational context. All the participants reported feeling negative or difficult emotions about ecological crisis, however there were strong indications that these emotions were not

fully engaged with and in some cases actively suppressed or avoided. This response can be interpreted as a psychological threat coping strategy.

### 5.7.1 Emotions about ecological crisis

The emotions that the participants reported arose out of their acceptance of the facts and likely realities of ecological crisis. The following quote gives a flavour of expected realities:

*Ash: Forecasts for this century around increasing resource scarcity, conflict, population movements you know all sorts of kinds of human tragedy*

Acceptance of facts is regarded as an ecologically adaptive coping strategy (e.g. Crompton & Kasser 2009) and might be expected of people who have chosen to work professionally in environmental sustainability, or in Heather's case as chief executive in an organisation bound by cooperative principles that include environmental as well as social concerns.

When asked how they feel about the effect of human actions on the natural world, they described emotions using terms such as *sadness, frustration, angry, worrying, overwhelmingly distressing, depressing, upset, gloomy, melancholy* and *deeply disturbing*.

These are common responses to climate change and other dimensions of ecological crisis (e.g. see American Psychological Association 2009; Wright & Nyberg 2015; Dörries 2010, Moser 2007). However, I find that these emotions appear to be consciously and intentionally suppressed, as I show in the following quotes. There seems to be a fear that engaging fully with such difficult emotions will lead to dysfunction and an undermining of effectiveness, thereby presenting a threat to competency need satisfaction. Suppressing emotion is therefore a form of psychological threat coping strategy.

*Robin: I think the initial emotion is anger or frustration. But I try and not retain those feelings really because they're quite self-destructive... (I) put them into the ground... I try to remain positive... I try to find reasons to be optimistic*

*Ash: Emotions I suppose when I think about it which I try and avoid think- it's rare that I- it makes me feel sad. Uh (pause) I think I just feel a sense of melancholy about it really (pause) Um (pause) I tend not to explore them or I think I've got them in a*

*box in my head and I carry on um being a parent and being a sustainability manager and trying to do good stuff. So and I kind of I you know in a box sitting in an attic in my mind really so I don't think its particularly helpful to explore because its kind of disabling in a way really and disheartening. So I think I put it in a box in the attic*

Ash: *Generally I'm an optimist though, I need that otherwise I'd give up I think, so*

Heather: *I think negative emotions is is sort of it's healthy to feel a reaction to it but em I think it's trying to sort of then turn it into either a positive action or a way of dissipating that negative sensation in your body so you're not carrying carrying it too much, which I think makes you less effective because the more you worry and get tense em and feel unwell you cant do positive change can you, you cant make a difference so*

Hazel: *I think I probably feel - I think I probably try to repress a lot of those emotions because doing the work that I do you have to sort of stay optimistic and hopeful that there is a possibility that we can change um so dwelling on negative stuff doesn't get you to that goal, whether its realistic or not it just mentally it doesn't help all that often*

Ash's use of *disheartening* invokes not just a physical feeling in the body but also a weakening of resolve, which is repeated in his other statement *I'd give up*. Robin, in *putting them into the ground*, is metaphorically burying his emotions.

In cognitive linguistics a Container schema protects what is in the container from dangers outside, or protects what is outside from the danger within. Now that Ash has realized that he has compartmentalized his emotions about ecological crisis into a *box in the attic* of his mind, and is opening up this box by talking to me about these feelings, they are no longer contained and under control. I had the impression he was keen to put them back in the box as quickly as the interview allowed.

Robin, Ash, Rosemary and Heather emphasise expressing positive emotions and refer to positivity and optimism, which as I observe earlier (see 5.4.1) is part of the research subjects' motivational story and is also a type of coping strategy.

Rosemary: *If I think about it too much it gets a bit bleak so I try and go, I try and go, "I'm doing good things for the environment!" (laughs)*

As with identity, that suppression of emotion takes effort is indicated by use of the word *try*

in the above examples from Robin, Ash, Heather, Hazel and Rosemary.

A reluctance to engage with negative or difficult emotions also manifested in the participants' manner of speech: I noticed that they would often start to say the negative emotion word and then rush to say something positive, sometimes without fully finishing articulating the negative emotion word. In the example below Ash takes a long time to begin expressing what he feels and then as soon as he says it he switches to a positive frame, but note how the negative feeling comes back up:

*Um (pause) that (pause) I think I feel yeah disheartened by I suppose. But in other areas you can say we're doing good things. But that- natural space-the loss of natural space feels like a slow inevitable decline.*

Often when asked about how they felt, participants answered with what they thought. I discuss this further in the next section 5.6 on mindfulness and embodied cognition. This can be interpreted as a coping strategy of intellectualisation, and is a way to avoid feeling. Participants also used the coping strategy of reducing the intensity of the emotion through use of a modifying adverb, for example:

*Hazel: a little scary and depressing*

In the following example, Jay is using selective attention to avoid feeling negative emotions.

*I think because I've put so much into my work I don't want to think about it (by watching nature programmes). And I don't want to get distressed. I cant watch distressing programmes, habitat destruction or. I suppose that's what I've done really*

But in Jay's account, exertion of effort and energy is associated not with suppression of emotion but with expression:

*Because I'm powerless to do anything about them and I put too much I've invested too much emotional energy in them in the past.*

The powerlessness to which he refers is an indication of thwarted competency and possibly also autonomy needs, brought about because the 'investment' of emotional energy into something he cares about has not yielded a return (Jay is using an Economic frame in talking about emotional energy as a valuable resource). Feeling both distress about something and

powerless to do anything about it is experienced as energy depleting. Ryan & Deci (2008) predict that needs satisfaction should maintain or enhance vitality. Deficiency in competency/autonomy satisfaction from feeling powerless is depleting Jay's vitality.

### 5.7.2 Reason-emotion dualism

In the preceding section 5.6 I discussed a duality between reason and emotion on the level of identity, and gave the example of Rosemary who appeared to favour reason and logic as the basis for decision-making. I explore this further now, with Robin and Ash whose accounts also indicate tensions between these aspects.

Robin appears to hold conflicting views about reason or emotion as the proper basis for decision-making. He describes confronting a colleague who he characterises as the sort of person who would say *I don't believe in all this green crap*. He objects to her opposition to his project as *not really an evidence-based argument* but based on her *opinions and emotions around environmental issues*. Robin concludes:

*We can have a logical argument around resources and capacity in the organisation but we shouldn't just reject things because of personal feelings and opinions*

Yet elsewhere he describes being part of a decision-making process around communication of energy efficiency that rejects the environmental message in favour of an emphasis on cost savings:

*I think it was anecdotal. I guess there was no strong hard evidence for it really. It was just their view on which message to go with or not to go with*

He does not have the same reaction to this, perhaps because he agreed with the decision. As he says: *I probably was with the non-environmental message side of things.*

Ash was the only participant who made explicit reference to social norms of emotional expression in the organisation. As the following extract indicates, he appears to perceive his

organisation as violently hostile to emotion (*bashed out of us*). A reason-emotion dualism is evident.

Ash: *(silence) how do I feel about it (in quiet voice) as local government officers it's all bashed out of us in our day job because what we feel about things is completely irrelevant it's about what the business case is, and you know pragmatic*

Lertzman (2015 p33) writes, "The capacity to be disturbed is linked with the capacity to be curious, and both require certain levels of containment and safety to help tolerate such experiences". Recalling the discussion of the Container schema above (see 5.7.1), Ash's organisation seems not to be a safe container for releasing the feelings of melancholy he reports having, making containment of the emotion within himself (*box in the attic*) the safer option. Ash is aware that being too enthusiastic in meetings with senior managers might be counter-productive and wants to regulate this feeling: *I try and rein it in*. With this phrase, the conceptual metaphor in use is EMOTION IS A WILD ANIMAL TO BE BROUGHT UNDER CONTROL. Note the effort implied with *try*.

There is another way that an organisational context of reason-emotion dualism can be discerned: in the reluctance of the organisation to engage with the discomfort of uncertainty and of working through difficulty. This was Rosemary's observation:

*So what I've seen in people is that they see there's a problem but they can't quite get their head round what we might need to do to fix it so they fix on something very simple and normally that means at the expense of some sort of environment or environmental balance. So it's easy for them on paper it makes their budget balance or it solves their design problem - we just get rid of it... There's this sort of pushing away of design problems rather than sitting with them going 'ooh we have to grapple with this and stay involved with it to the point a solution emerges', and I think our systems are such there is such a pressure for these quick sol- 'don't bring me problems bring me solutions' you know that people don't even want to sit and hear about the problem they just want to 'oh you're going to do that - great' (laughs) so people's motivation is then to come with 'it'll fix it oh ok good', no one questions it, no one says 'is that the best fix what are the long term consequences', and em yeah so I think that's, (my) observation is that unwillingness to deal with complexity I think*

This organisational response can be explained as a defence against feeling difficult emotions.

### 5.7.3 Discussion

In this section I analysed and discussed how the participants appear to regulate and manage difficult emotions. I looked at emotions about ecological crisis, and reason-emotion dualism in the organisational context. I now discuss my findings in relation to the literature. My analysis contributes insight about the relationship between emotion regulation and needs satisfaction, and about the role of organisational contexts in supporting engagement with difficult emotions.

- Types of emotions felt about ecological crisis

The kinds of negative emotions about ecological crisis that the participants in my study reported feeling have also been found in other studies (see American Psychological Association 2009; Wright & Nyberg 2015; Dörries 2010; Moser 2007)). Wright & Nyberg (2012) find that sustainability professionals are key agents in framing climate change positively as a challenge and opportunity for corporations rather than a threat. A positive framing of climate change as an economic opportunity did not emerge in my analysis of participants' accounts, but it did emerge in my analysis of organisational documents (see 5.11.8).

- Negative emotions perceived as threat to competency. Suppression of emotion is in service to competency

This finding provides empirical support for Macy's (1993 p31) assertion that "we are afraid that we might break apart or get stuck in despair if we open our eyes to the dangers", although Macy does not talk about it in terms of needs satisfaction. In an organisational context, Ashforth & Humphrey (1995) state that there is an assumption that rationality is required for accomplishing tasks and that emotions have disruptive effect on effectiveness. In the literature on emotion in organisations, suppression is a form of response-focused

emotion regulation (Grandey 2000). Dissonance between felt and expressed emotion creates tension (Rogelberg 2006) and may affect sense of inner coherence (Grandey & Gabriel 2015).

- Suppression of emotions takes effort

This is consistent with the research on emotion (e.g. see Rogelberg 2006), which finds that suppression of strong emotion takes mental and physical effort. Organisational studies literature refers to the general literature on emotion and stress and the use of energy, recognising that emotion regulation is an effortful process (Grandey 2000) and that suppression creates tension (Grandey & Gabriel 2015).

- Suppression of emotions manifested in manner of speech, and was discerned through micro-discourse analysis

Grandey & Gabriel (2015) report that measures of emotion regulation tend to be self-reported and that emotion performance is measured in field observations of facial or vocal cues of emotional expressions. However, they make no specific mention of using micro-discourse analysis as a methodology.

- A range of emotional avoidance coping strategies were used

Emotional avoidance strategies are discussed in the literature. In the short term, suppression of emotion can have positive effects and can reduce stress, but if prolonged it can become pathological (Cramer 1998). Over longer time periods, avoidance coping styles are associated with poorer health (Weinstein & Ryan 2011). Ashforth et al (2014) cite Argyris (1993) in suggesting that because avoidance reduces immediate tension associated with ambivalence, it may prevent the individual from even recognising the ambivalence thereby inhibiting learning and problem solving. Avoidance may also facilitate compromise by reducing tension whilst preserving ambivalent qualities. Engaging with and working through difficult emotions

about ecological crisis is considered an adaptive coping strategy (Macy & Brown 2014; Crompton & Kasser 2009; Norgaard 2006a; Lertzman 2015; Randall 2013; Rust 2008). As Rust (2008 p160) says, “when we block out our feelings we lose touch with the urgency of the crisis”. In surrendering to despair, we are connected into the world and into our bodies (p167). SDT explains that interest-taking (engagement) in one’s own emotional experience leads to optimally effective emotion regulation by facilitating the assimilation and integration of emotions with other aspects of self such as previously held emotions, experiences and beliefs (Weinstein & Ryan 2011).

- Feeling both distress about something and powerless (deficiency in competency/autonomy) to do anything about it is energy depleting.

This is consistent with SDT which states that needs satisfaction maintains or enhances vitality (Ryan & Deci 2008). Powerlessness and distress is likely to trigger a defence reaction, says Randall (2013), which in my study manifested as selective attention.

- Reason-emotion dualism is primed by organisational culture. The organisation is not perceived as safe container for expressing difficult emotions about ecological crisis

Reason-emotion dualism is a core component of the dominant cultural worldview of the societies in which the participants live (Midgley 2003). My findings suggest that organisational cultures that reinforce a reason-emotion dualism are unlikely to be contexts able to hold the experience of engaging with difficult emotions in a safe and productive way. Ashforth & Humphrey (1995) report that organisational scholars and practitioners frequently appear to assume that emotionality is the antithesis or absence of rationality and thus hold a pejorative view of emotion. However, organisations are not an emotion-free zone (Hochschild 1979; 1983; Fineman 2000; 2003), it is more a case of which emotions, how they are expressed and by whom. Expressions of negative or intense emotion in the workplace

tend to be unacceptable and emotion is regulated by neutralising, buffering, prescribing or normalizing (Ashforth & Humphrey 1995). In my study, the organisation of one participant seemed to be a) neutralising his emotion about ecological crisis by preventing its emergence in the first place, and b) prescribing what was socially acceptable, with low tolerance for emotional displays. For the participant, this means emotion work to align with the demands of the organisation. Fineman (1996) also found that managers would suppress their pro-environmental enthusiasm in order to not be seen in an unfavourable light by line managers.

- Defence against feeling difficult emotions manifests on organisational level as organisation not willing to engage with discomfort of uncertainty and working through difficulty. Pressure for quick solutions

This finding supports Macy's (1993) claim that "our culture dodges despair by demanding instant solutions when problems are raised... Letting the difficulties reveal themselves so you can understand them before rushing for a ready-made solution requires that one views a stressful situation without the psychic security of knowing if and how it can be solved - in other words, a readiness to suffer a little" (pp18-19). It is also consistent with Argyris (1990; cited in Ashforth et al 2014) who states that most organisational cultures facilitate or reward defensiveness because norms favour care for people over facing tough issues that could upset or offend them. With respect to my study, the norm is to find a quick solution to avoid having to engage with difficulty. Ashforth et al (2014) explain that organisational cultures that privilege the belief that progress results from full airing of both sides of issue, and that complexity of decision-making should reflect complexity of issue, are enabling environments.

## 5.8 MINDFULNESS + EMBODIED COGNITION

Subthemes:	Self-regulation Mind-body (dis)connection
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There are two dimensions to the findings relating to mindfulness and embodied cognition: firstly the level or quality of conscious mindful awareness and how this awareness is used in self-regulation, and secondly the fundamental role of the physical body in the shaping cognition (see 2.6.2).

I preface my analysis by recalling the literature on this topic. Cultivation of mindfulness is thought to:

- Support healthy and autonomous self-regulation of behaviour, as feedback signals of emotions, thoughts and physical sensations are attended to (see 2.3.3)
- Enhance autonomy by fostering integration of parts of the self and strengthening sense of mind-body connection, enhancing psychological wellbeing (see 2.3.3)
- Support engagement with and working through difficult emotions as an adaptive psychological threat coping strategy (see 2.5.4)
- Help resist contextual forces by becoming aware of priming effects of organisational discourse (see 2.6.3)
- Help transcend egocentric orientation and reduce ego-involvement, which are associated with extrinsic goal pursuit and reduced concern for the natural world (see 2.4.2)
- Develop social consciousness and help embed it into identity (see 2.4.4)

### 5.8.1 Ease of awareness of internal-external experience

As part of the recruitment process the participants completed the MAAS survey<sup>21</sup> and all scored in the upper half of the scale. The purpose of this exercise was to ensure they had sufficient capacity for mindful awareness so that they could provide rich accounts of their

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<sup>21</sup> Mindful Attention Awareness Scale (Brown & Ryan 2003)

lived experience. None of the participants had a regular meditation practice during the time of the fieldwork although some had tried it a few times and Jay reported sometimes listening to Buddhist chants whilst working.

As detailed in the Research Process chapter (see 4.2.2), participants were asked to attend to what was going on within and around them during a significant event such as an environmental strategy meeting with colleagues. Each participant reported some level of awareness but their accounts differ with regard to their ability to notice the various internal aspects of conscious experience i.e. emotions, physical body sensations, thoughts, and to be aware of what was going on around them through sensory acuity.

Physical sensations especially of frustration, tension and stress reactions were for some participants easier to access, whilst others were more in touch with emotions or thoughts. When asked about feelings, participants sometimes answered with thoughts. Hazel observed:

*And often untangling for me and I don't - this is part of something that I have a lot of familiarity with, is untangling the line between what's a thought and what's a feeling.*

Emotions, thoughts and physical body sensations are closely associated (see 2.5.4).

However, being able to distinguish between them and understand how they interact is regarded as a basic skill in cultivating mindfulness and developing the ability to self-regulate emotion and behaviour (Kabat-Zinn 1990). With Jay, frustration shows up as a mix of physical sensations, emotions and thoughts:

*Slight tingling in my brain and knots in my stomach sometimes. Slight flash of angry I've had enough of this*

Attending moment-by-moment to all the internal and external aspects of experience during meetings was for most of the participants difficult, as they report in interview and in their diary entries. For example:

Hazel: *I've been trying to pay attention and it's been very hard to notice these things (body sensations). The biggest thing that I've noticed is that it's really hard to notice... so the thing that was easy to notice were my thoughts, I was able to keep track of my thoughts. Things that were much harder to keep track of were my feelings and my physical changes or sensations*

Robin: *I think it'd be easier if I wasn't running the meeting. If I was just participating in a meeting I'd be able to notice any adverse reaction I was having to any comments or but running the meeting I've got that going on as well. Noticing any body language or sensing what's going on as well is bit more difficult I think.*

Rosemary describes her experience as:

*Hard actually, I think yeah (to be aware in the moment) Yeah. Because of the tension of the meeting, and it brings up your unconscious stuff to then want to try and bring a bigger consciousness back, in a way the heightened level of the meeting the more your unconscious is likely to operate, so to then bring- the more work your conscious has got to do on both engaging with the meeting but also engaging with self. You know I think that for me that so yeah it was hard, all of this I find hard because I do try to be really reflective*

*So I try to be as aware as I can be of others but what I need to learn to do is become more aware of myself*

There is a lot of effort being expressed in these quotes, which is conceptualised as uncomfortable (*hard*). From the perspective of Attention Restoration Theory (Kaplan & Kaplan 1989; see 2.4.3) Rosemary and Hazel may be using effortful directed attention, rather than the minimal effort of involuntary attention. Rosemary mentions trying to be reflective. This is indicative of a self-focussed reflexive mode of consciousness, where the person is operating within the thoughts and feelings of the ego-self, rather than a mindful state where the person is operating upon them and is an observer to the contents of consciousness - including self-reflective thoughts (Brown & Ryan 2003; see 2.4.2). As this mode involves controlled self-regulation it can be energy depleting, and in ego-self mode there is a likelihood of ego-involvement (Brown, Ryan & Creswell 2007b; Deci et al 2015).

In contrast to the effort in Rosemary and Hazel's accounts, these two quotes from Heather about running outdoors convey the less effortful and less self-focussed awareness of involuntary attention:

*we're on a hill so you can see all the sky above you, part of the run you can see for quite a long way so you can see valleys and sort of hills miles away so I'll look at that sort of distant view as well. Em in summer you see bees and butterflies, in winter its icy so there could be ice on the ground or snow em so its always different, its a different run every single day. The weather's different could be cloudy or sunny, I run when its raining, I've been out running when its been minus 4 and its been like half 5 in the morning so (laughs)*

*just sort of empty my head of everything and just feeling at one with the environment and taking in everything that's around me. Taking in the sky, the sort of smells, the feel of the ground underneath your feet, sort of every sense really*

Brown & Ryan (2003) state that almost everyone has the capacity to attend and be aware, but that this capacity can be sharpened or dulled by a variety of factors. People also differ in propensity or willingness to be mindful. It takes considerable training in mindfulness meditation to be able to hold all that is occurring in the present moment in one's awareness with a sense of ease and effortlessness, even in situations that are not particularly stressful. According to Rosemary, mindfulness meditation training is not something she has undertaken. Jay has had some training in mindfulness meditation yet he finds that his awareness is restricted when experiencing high levels of stress:

*Because if I was really stressed I wouldn't notice that little Blue Tit that keeps sitting on there pecking*

Rosemary and Jay's accounts suggest that tension and stress are factors that can dull the capacity to be mindful.

### **5.8.2 Self-regulation**

Some of the participants (Robin and Heather) reported being able to notice enough of what was going on within them to self-regulate their emotions and behaviour to some extent, either at the time or shortly afterwards.

Robin describes being able to regulate his emotions just before a meeting:

*I think I was conscious going in that I was nervous and anxious. And I recognised that I was not focussing and distracting myself going in, and so I tried to kind of recognise*

*that reaction there and one of the best ways of overcoming it was actually to do what I need to do, and then remove that as a worry and that was not the natural thing I'd do em*

The 'natural' thing he would do (i.e. if he hadn't been briefed to attend to his inner state as part of the research) is:

*Keep on distracting myself and then get to the meeting and be not as prepared as I'd want to be and have that kind of heightened kind of anxiety*

Although Robin found attending during the meeting *difficult*, as the quote included in the earlier subsection shows (see 5.6.1), he was still able to self-regulate to some extent during the meeting, perhaps because beforehand he had succeeded in managing the anxiety he noticed he was feeling.

*I kind of checked myself a couple times in the meeting in terms of the way I phrased questions*

It seems that whilst high states of tension and stress may dull the capacity for mindfulness, if these feelings can be reduced (which requires noticing their presence), then the capacity for mindfulness can sharpen. Robin reported undertaking various personal development and self-awareness training as part of a coaching course, and his ability to be mindful may be stronger as a consequence.

Heather also refers to stress, worry and tension. She describes her experience as follows:

*What tends to happen is I'll get engrossed in a situation and get quite sort of involved and then I will go away and think how did I feel during that sort of meeting, how am I feeling now right I need to go and wind down somewhere or go for a walk to clear my head, I'll sort of de sort of de-stress myself really  
I think the key thing is recognising it so I'm getting better at recognising when I feel that sense of tension or worry, so if I can recognise it I'll try do something quickly about it so like I say if I can go for a run I'll go for a run, or I'll do an exercise or I'll do something positive so I'll try and not stay with it too long really otherwise I get a headache or just sort of feel depressed or unhappy so*

The state of consciousness of being 'engrossed' is not a state of mindfulness, because as explained earlier mindfulness involves meta-awareness. But it seems Heather is able to mindfully check in with how she is feeling after the event, and self-regulate her behaviour to

return to baseline functioning. *Wind down* is a mechanistic metaphor HUMAN IS MACHINE, which I discuss further in section 5.11.6 Relationship with nature.

Heather's motivation for self-regulating feelings of tension and worry are to do with competency needs. This theme is elaborated in the earlier section on emotion (see 5.7.1). To 'stay with' the feelings 'too long' results in more symptoms of stress (*headache*) and more negative emotions (*depressed, unhappy*). It's not possible to tell from this extract exactly how Heather is relating to her experience. The body of knowledge on mindfulness agrees that when we resist negative experience, or ruminate with worry thoughts, we can create more suffering for ourselves (e.g. Kabat-Zinn 1990; Williams & Penman 2011). From a Self-Determination Theory perspective this is because such a way of relating to our experience involves the ego-self mode of consciousness, and aspects of experience are not being integrated. In the extract from Heather above we can see that physical activity is an important coping strategy for her in dealing with tension, worry and stress. The health benefits of physical exercise are well known, including for managing stress. For Heather, physical exercise seems autonomously motivated.

### **5.8.3 Mind-body (dis)connection**

Two participants in particular present interesting case studies with regards to embodied awareness and mind-body connection: Rosemary and Ash. Their accounts highlight the complexity of conflicts that arise in lived experience.

#### **Rosemary**

Rosemary talks about her experience of influencing pro-environmental decision-making by writing a regional environment strategy, and in her statement below we can see the salience of both competency (*really good job*) and autonomy (*because I care, I want to*) needs:

*Because I care about that (environment strategy) I want to do a really good job so the pressure is immense.*

Rosemary describes how she experiences the pressure:

*Feel like I'm running through my head, it's just like the head is leading I've got to do this I've got to do that and I've got to think about stuff a lot.*

*But yeah it's an interesting pressure because the desire is to move, like often it's to move to bring it back into my body to allow it to process but oft-uh it doesn't always allow it and then I have my personal battles around personal health and fitness and diet and staying active enough*

We can see in the second quote above that physical movement does not always get enacted despite some internal prods (*the desire*), which is a strong indication that physical exercise is motivated by an introjected regulation - this means the behaviour is not integrated with other aspects of self. Integration of behaviour with other aspects of self is a defining element of autonomy in Self-Determination Theory. With introjection, one part of the personality is thought to push other parts around using sense of worth (pride) as its rewards and self-criticism (shame, guilt) as punishments (Ryan & Brown 2003). Introjected regulation is marked by pressure, fluctuating feelings about the self, and “inner conflict between the demand of the introject and the person’s lack of desire to carry it out” (Deci & Ryan 2000 p237). Such inner conflict is conveyed by her reference to *personal battles*. External motivation can also be discerned in the first quote (*I’ve got to*). With the phrase *running through my head* Rosemary is using a Spatial schema that conveys the pressure and speed of introjected thoughts.

The use of the term *interesting* suggests intellectualisation – a psychological threat coping strategy to avoid feeling by shifting focus to thinking. Note the use of depersonalised *the desire*, rather than e.g. “I feel a desire”.

In the above quotes the head and thoughts are associated together and both seem to be conceptualised as separate from the body – the mind is disembodied: *the head is leading*. The body is a container *into* which feelings of pressure are brought back for processing. *Process* can be interpreted as a mechanistic metaphor: the body is conceptualised as a machine for processing feeling. It is unclear whether the *it* that doesn't allow this processing is the body or the head – my intuition is that it is the head, and as she says it is the head that is 'leading'. Elsewhere in the interview Rosemary also says *I find it very difficu- I need to come out of my head*. The following extract also indicates non-integration of parts of the self (*splitting of person*). The conflict between intrinsic (*wanting to*) and external (*have to*) regulations is evident, and there is also further use of the HUMAN IS MACHINE conceptual metaphor (*full steam ahead*):

*So there is this sort of splitting of person that inhabits the hierarchical role that I now have in the council I have to be compliant with all those requests and requirements, while just wanting to go full steam ahead on the content stuff*

A further example of issues with integration can be identified in this statement:

*In a work context often I end up feeling like I wear I wear clothes that I wouldn't choose to feel really comfortable and really me, I wouldn't be wearing them. And so that immediately puts this sort of its like an internal barrier to my self because I'm like oh now I'm being this person who has to wear these clothes and then I put myself in a context and and that sort of then ripples out it takes a while to get all of that off.*

Clothing is both literal (*wear clothes*) and metaphorical (*get all of that off*) as the feeling is of her self being covered by material. In talking about how she could remove that 'internal barrier' to herself she switches from *I* to *you*, which could be interpreted as a defence to distance herself from the behaviour. The behaviour does not always work:

*So and you can do that quite quickly I suppose in terms of doing something quite immersive, but some things I think still when you think you're going towards doing it, don't*

As she continues to talk about her strategies for removing (*drop off*) the 'internal barrier', she is explicit about physical exercise as an external regulation (*chore*) compared to gardening, which the quote below suggests is autonomously motivated.

*So for example sometimes going for a run will help drop that off but other times it won't but one of the things I found most enjoyable is doing stuff in my garden and actually getting hands- literally getting hands dirty so it's less (pause) so its outside and its activity but it's sort of nurturing activity? Whereas sometimes going for a run can feel um more about I have to do it and it's a chore thing whereas as sort of with the garden it just never feels like that*

With all these conflicts in her experience, Rosemary's Hero Fulfilling Destiny motivational story (see 5.4.3) takes on an even more important role as a coping strategy in maintaining psychological wellbeing, particularly as she also seems to perceive the organisation as oppositional and a source of psychological threat as discussed earlier (see 5.5.2). Linking the story to self-esteem as she does, seems even more risky for her psychological wellbeing if other organisational factors such as stressful environments are also taken into account:

*Because actually working here is an extremely unhealthy environment I would say in terms of chronic, people you know constant restructures and budget cuts and saying that you know we cant do this it's chronically stressful for people*

The organisational culture is also experienced as undermining of mindfulness:

*I think you have to work really hard (to be mindful) because... Lack of resource, time pressure, generally lack of self awareness that everybody's operating with, I would say um there's not a lot of reflective practice going on within the council or management style, or um what we're trying to achieve- you know actually what we're trying to achieve is very reactive fire fighting stuff*

Rosemary's response to my question about how the organisational culture affects her personally highlights the importance of self-awareness for her wellbeing:

*(pause) um means I keep going to therapy actually that I've, you know (pause) that I have to keep quite a close eye on my own mental health working here. Hmm! Hmm! Actually.*

But from a Self-Determination Theory perspective, if this self-awareness is a form of self-focussed reflexive consciousness, it would not be fostering integration in the way mindful awareness could. Combined with introjected regulation, such awareness could in fact be providing more material to be self-critical about, in a self-perpetuating feedback loop with negative consequences for wellbeing (Brown, Ryan & Creswell 2007). Indeed guilt and self-criticism are evident in other statements Rosemary makes, as I discuss in 5.9.2.

## Ash

Ash reported finding it difficult to notice physical sensations:

*Um (pause) I don't think, I don't think I keep a kind of consc- you know conscious (pause) I don't think it's in the forefront of my mind that I notice that particularly, uh (pause) I don't know but I clearly know when I'm kind of frustrated or bored or in meetings. But I don't, you asked about physical kind of symptoms or kind of behaviours, that I really struggle to kind of think about, and certainly looking back. Eh the main one I do anyway, sighing, but uh (laughs)*

However I had noticed he had a few times used body metaphors, talking about the failure of projects as a *punch to the stomach, felt gutted* and had placed particular emphasis on those words as he spoke them. When I pointed this out to him, he immediately replied:

*Yeah! Yeah yeah yeah yeah. Yeah yeah oh yeah definitely. Real- yeah really. So I do, at times, but those are those are rare thankfully, that we the last two, not getting the million quid and not getting the heat network implemented I still worry- you know I still, I still feel sore about them now thinking (indistinct word) thinking about them. I really wanted those. Um (voice trails off)*

He repeats 'yeah' nine times with energy in his voice and sitting in front of him I have the impression he is having a strong insight as he speaks. He seems to start the sentence with acknowledgement that he feels things physically in his body but then shifts the focus to talking about the projects whilst still using physical language (*feel sore*). Although he seems to have low conscious awareness of the physical sensations in his body, it is as if they are leaking out through the language he uses - without him being aware of it.

In Self-Determination Theory autonomy includes the experience of integration. For Ash and Rosemary, the mind-body disconnects I have identified are therefore likely to be thwarting autonomy satisfaction. When combined with psychological threats from the organisational context, these conflicts could have significant impacts on psychological wellbeing, and hence on their effectiveness.

#### 5.8.4 Discussion

In this section on mindfulness and embodied cognition I looked at the participants' capacity for and quality of mindful awareness, mind-body (dis)connection, and the role of the physical body in cognition. I now discuss my findings in relation to the literature. My analysis contributes insight about factors that support or undermine embodied awareness as well as the way that language expresses embodied cognition even when there is low conscious embodied awareness.

- Difficulty in attending moment-by-moment to all aspects of inner and outer experience during meetings. Effort suggests use of directed attention

This is consistent with the literature on learning or teaching mindfulness (e.g. Kabat-Zinn 1990; 2003). It is harder to remain aware in inter-relational settings (Armstrong 2012).

Training the mind to be mindful is an ongoing practice, and with time practitioners learn to deal with a wandering mind lightly rather than forcefully.

- Effortful use of self-focused reflection, less effort expressed with use of involuntary attention and mindful awareness

This finding is informed by SDT and Attention Restoration Theory (Kaplan & Kaplan 1989).

Self-focussed attention and directed attention are effortful and can therefore be energy depleting, whereas mindful awareness and involuntary attention can be revitalising. Self-focussed attention is an ego-self mode of consciousness, which is associated with ego-involvement and controlled self-regulation. Ego-involvement is associated with feelings of pressure and tension and with instability of self-esteem. Ongoing concern with the self is understood to be a by-product of need deprivation, deficiency or conflict, and suggests a psychological vulnerability (Brown & Ryan 2003; Brown, Ryan & Creswell 2007a, b; Deci et al 2015; Ryan & Brown 2003).

- Tension and stress are factors that can dull the capacity to be mindful. Some self-regulation of emotion and behaviour is possible if the individual can manage initial stress and anxiety.

This is consistent with research on stress that finds when a threat response is triggered in the body, glucose and oxygen are diverted from parts of the brain including working memory which processes new information and ideas, thus impairing cognitive functioning (Rock 2009). Brown & Ryan (2003) explain that the capacity to attend and be aware can be sharpened or dulled by variety of factors, but do not specify what these factors are.

- Self-regulation through mindfulness is to enhance competency and wellbeing

This is predicted by SDT. Mindfulness supports healthy self-regulation. Awareness of what is truly occurring internally and externally means the individual is more able to make choices and engage in autonomous behaviours, rather than react automatically (Deci et al 2015).

- Mind-body disconnection and non-integration of parts of self are associated with introjected regulation and inner conflict

The dominant worldview of modern industrial culture encourages disembodiment because it positions reason and the mind in a dualistic relationship with emotion and the physical body (Midgley 2003). Such dualisms if internalised are sources of tension because parts of the self are not integrated into a coherent whole but are instead devalued and rejected. Kidner (2007 p138) argues that “one of the ways we make bearable the unbearable reality” of the destruction of the earth is by disembodiment. Thought, he says, “is used to control and discipline the body and the feelings, intuitions, and awarenesses that the body communicates”. For Kidner, disembodiment is a denial of reality: “it is not so much in our heads that the residues of reality are to be found – our intellects have been too deeply

colonised for that – but rather in our *bodies*” (p139). According to SDT, introjected regulation is marked by pressure and conflict (Brown & Ryan 2003; Deci & Ryan 2000).

- Organisational culture is experienced as undermining mindfulness due to time pressures, lack of resources, and reactive fire-fighting management style

Much of the literature on mindfulness in the workplace focuses on the individual, how employees and leaders can improve their health, cognitive performance and interpersonal relationships by practising mindfulness (e.g. Chaskalson 2011). However, the principles of mindfulness at an individual level have been applied at an organisational level and describe a culture that is open to change, learning and growth (Passmore 2009; Ashforth et al 2014). Whilst some organisational cultures may not be enabling environments, individuals can nevertheless learn through training to be mindful in the midst of pressure and intensity (Kabat-Zinn 1990; Williams & Penman 2011).

- Low conscious embodied awareness, but embodied cognition leaks out through language

This finding is not reflected in any of the literature I reviewed.

## 5.9 TENSIONS IN EXPERIENCE

Subthemes:	Experience of pressure, conflict, struggle, difficulty Desire for wellbeing, comfort, balance, support Coping strategies
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This higher order theme is concerned with tensions in experience: how tension is conceptualised and experienced, and coping strategies used to negotiate tension and stress. 'Tension' means a strained state resulting from forces acting in opposition to each other. From a cognitive linguistics perspective, interaction with the world "requires the exertion of force, either as we act upon other objects or as we are acted upon by them" (Johnson 1987 p42).

### 5.9.1 Conceptualising and experiencing tension

#### Tension and force

Tension and the related aspects of experience of force, effort and pressure can be identified in participant accounts using frame and metaphor analysis. Experience of tension also shows up in terms like: *frustration, conflict, struggle, difficulty, hard, struggle, fight, battle, conflict, challenge, tension, grapple, tackle, dilemma, tricky, friction, competing, stress/stressful, balance, comfort, try, push, pressure(s), effort, space, squeeze, burden, force/forceful/forced, blow it up/blew up, pinched, demands/demanding, drive/driven, pressing, weight, crammed, carrying*. In the following extracts I have highlighted the trigger words in yellow:

Rosemary: *the process I've been through to get here... it's been absolutely fundamental shift in who I am and how I view myself and that's been really **hard***

Hazel: *so the healthcare workforce... works very well on quick decisions under **pressure** that is their expertise. And we are **imposing** a future system thinking that is **outside their comfort zone** and so that is a **conflict** for sure*

Jay: I've put lots of energy into **driving it forward**... I've put too much **effort** into work because I've needed to

Robin: I started **pushing** for this new project last year

Hazel: and the **balance** I am so aware of, all the things that our organisations **throws at** our clinical staff we just went over but so many **competing** priorities that are as important as the next one, the **pressure** that they must feel to deliver on each one of those I think is **hard**

Robin: we've had a few eh environmental projects **enforced** on us... environmentally **forced** solutions

The experience of pressure is typically experienced as the build-up of emotions in a container (Johnson 1987) as these extracts illustrate:

Jay: it's slowly focussing to this great big **explosion**

Rosemary: and it sometimes goes I can't do that anymore... I just can't **take any more in**

### **Balance and measurement**

To experience wellbeing and inner harmony, we need to actively maintain a state of balance between opposing forces. "We experience our entire psychic makeup in terms of balance", says Johnson (1987 p89). Psychological balance involves emotional forces and pressures, of which we may find too much or too little. This means that a Balance schema involves measurement: it is connected to a Quantity cognitive frame. The following examples illustrate this link between balance and measurement, each in a different way. I have colour highlighted the trigger words: balance in yellow, and measurement in pink.

Jay: I've put **too much** effort into work because I've needed to so I don't get any time at home now. So that's a **rebalance** I need to make

Ash: I'm **juggling** about **10** different projects so normally **one** of them you know, if **one** of the plates falls off but another **one** is still going quite well so its **juggling and balancing** of plates

Robin: we probably have **too much** impact on nature

Rosemary: is there a way of living **more** connected but living **more** connected takes **more** energy and being in this job trying to do this work takes **so much** energy that I don't know whether I've got the energy to live **more** like that so it's a where yeah there's some sort of an **accounting** thing I suppose that goes on

Heather: *I'm quite concerned about how my, how (name of region) will balance the need for investment to improve people's quality of life against the desire to actually protect the environment as well*

With Jay, balance relates to the amount of effort he is putting into work. In the example from Ash, balance is to do with the number of different projects he is working on, some of which need to be successful<sup>22</sup>. Robin refers to balance in terms of amount of human impact on the natural world. With Rosemary, the measurement is the amount of energy she is putting into work and the amount left to 'live more connected' - *accounting* signifies this is an issue of balance. In Heather's extract, the balance conceptualised is between social and environmental benefits, and measurement is implied with *improve* – to know whether quality of life has changed, measurement against a baseline is required.

### **Force has a Path**

Force has a vector quality; it has directionality (Johnson 1987). There is a path of motion. A common conceptual metaphor used by the research participants is LIFE IS JOURNEY. Mostly this journey is along a linear path that has points along the path as well as at the start and end. This is illustrated with these examples: *I've ended up, where is this other person coming from, take it forward, guide it in the wrong direction, it just seems so so pointless, this was a good starting point, people drifting off, there's a lot of talk that doesn't get to the point.*

A variation is illustrated in this quote from Heather where the LIFE IS JOURNEY metaphor extends to navigation and guiding others through the territory:

*I really did cover a lot of ground um in the meeting. Covering all that ground and not losing anybody*

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<sup>22</sup> Recall Ash's motivational story about achievement (see 5.2.1), and the need to deliver results to keep his job (see 5.2.3)

## Progress is Forward Movement (along the Path)

In the participants' accounts, the LIFE IS JOURNEY metaphor was very often linked to the conceptual metaphor PROGRESS IS FORWARD MOVEMENT. For example: *so that's the way I'm going to drive it forward, there's other things where I think we're generally moving forward, felt like a step backwards, trying to get beyond preaching to the converted, that's what keeps you going forward*

The path can have obstacles impeding progress. In the following examples nature or policies protecting nature are the obstacle. The Path and Motion schema is indicated by *starting point* and *stop*, which I have highlighted.

Rosemary: *I hate thinking see trees being cut down. I just find that really distressing. Just because they've taken so long to grow and within a few minutes they're just KETEPEW and so often it's nothing to do with the tree it's to because we want the space... they (architects or developers) have got an artificial artificially low starting point because they think they should just have a blank sheet of paper and we want to put this on it*

Robin: *one of the things we looked at (pause) could we have a policy of not building on greenbelt land, but that was taken out because if an opportunity arises they didn't want to have something that could stop it so*

I found that the linearity of the LIFE IS JOURNEY/PATH combined with PROGRESS IS FORWARD MOVEMENT is associated with a sense of relentless pressure and tension, with consequences for vitality and competency (*snap*), as I show in the quote from Jay below.

*because I've done all I can to this point and I've told you and you understand it but still you don't understand it and still you're not taking on board the pressures you're putting on me or my colleagues. And what do you then expect to get from this because you cant expect people to keep going on and going on and going on and treating them in a certain way without it going snap*

The example above involves external pressure from the organisation, but Jay also experiences internal pressure (*self critical*):

*I'm quite self critical, perhaps it comes from my upbringing I don't know not that it was a bad one it was just (pause) if you come from an area where it's quite deprived, and you're working towards it that's what keeps you going forward and forward and forward.*

According to SDT, self-criticism can be an indication of introjection. This can be highly motivating because people may go to great lengths to maintain positive feelings of worth (Ryan & Brown 2003), as may be the case here with Jay. In the following quotes from Jay, this relentless internal-external pressure to keep going on the journey forward (*got to the point*) is having negative consequences on vitality (*tired*) and competency (*disorganised*). The phrase *got to* (highlighted in pink) indicates an introjected regulation.

*I've pushed myself too hard*

*I've got to the point now where I've got disorganised in my head*

*and I was working 10 day stretches and stuff like that just to try and get things done and thinking oh my times off here and then something would come up in a meeting and I'd think oh got to do that*

A similar interpretation can be made from this extract of Rosemary's account, with implications for competency (*done*):

*I get tired, I fee- I uh often feel like I'm just running through my head its just like the head is leading I've got to do this I've got to do that and I've got to think about stuff a lot. And it sometimes goes I cant do that anymore CHI CHUM and I'll get this sort of real UURRGH like battling here that I just cant take anymore in. It just I'm sort of done (laughs)*

Conceptualising experience as relentless pressure to keep going forward may make it difficult for people to voluntarily stop and take a break. The internal-external pressure is to carry on until something *snaps*: the increasing strain from opposing forces causes the object to break. If progress is movement in a forward direction then stopping, slowing down, or stepping off the path altogether may seem like failure, even though that could be a counter movement to achieve a sense of balance. Remembering that all metaphors are incomplete representations and are therefore distortions of reality, the possibility for nonlinear movement is hidden by the PROGRESS IS FORWARD MOVEMENT metaphor. It is easy to imagine how such a conceptualisation could be a major contributing factor in burnout.

### 5.9.2 Impact of tensions on vitality and wellbeing

In the subsection above I established that tensions can be identified in participants' accounts, and explored how particular cognitive frames could impact on wellbeing. In this subsection I analyse the consequences of one particular type of tension, thwarted needs, on wellbeing through its effect on vitality.

In Self-Determination Theory, satisfaction of needs is thought to maintain or enhance vitality (Ryan & Deci 2008). In my study, I have found evidence that thwarted needs have a negative impact on vitality. Frustration is an emotion signalling thwarted needs (Pryzbyski et al 2014). All the participants refer to feeling frustration several times in interview, but Rosemary and Jay use it considerably more than the others, and I focus on their accounts to investigate the link between thwarted needs and vitality. Heather was the only participant who did not refer to frustration in relation to her organisation - only in relation to the ecological situation.

#### Rosemary

In the following interview extract there are links between frustration and all three basic needs of **autonomy**, **competency** and **relatedness**. Trigger words are colour highlighted accordingly.

Rosemary: *I just get massively frustrated at the **irresponsibility** of it actually.*

Me: *So then what happens in the meeting, you're feeling this frustration*

Rosemary: *Then I suppose what I then do is that I **want to** make things, because I believe all that, I've thought it through pretty logically, I then **want to make my logical point** and right ok if we **need to** have an intellectual argument around this, lets go, you know- I suppose you know its a bit **naughty** of me I'm because on that front generally I can, on the whole if I think I know- I can **hold my own** pretty well I think. But the interesting thing is **if rank gets pulled**.*

Me: *Did that happen in that meeting?*

R: *A little bit. And has done subsequently so there's a bit of a **dismissal** of you don't really you don't understand this, again its a bit of that we just have to do this you don't understand the budget pressures you know. It's like well either **help** me because*

you're not putting it across that well (laughs) or actually there's bigger stuff to be considered here um. And so what goes on for me is that **I am then willing** to go, I will I'll come to meet somebody intellectually to say right ok lets have a very logical debate around this but **I'm robust**, but often that **doesn't want to get met**.

Me: And so how do you manage the frustration in order to have that logical conversation?

R: If I can have the conversation I can manage the frustration because I think, it becomes **relational**. But if I'm a bit **PQUEW down** (gestures with hands in squashing down movement) then then I can get quite frustrated but I will, I'll generally try and take that away rather than blow it up

Me: So you take it away where?

R: Eh (pause) take it away might, depending on who's- I might talk to people about it or I might just internalise it.

Me: And if you internalise it, what happens?

R: Then I need to go into quite a long negotiation with myself about **beating myself up** for handling something badly or not managing it or not getting the point across. So there's ah I suppose there's a **victim** potentially put myself into a victim space but then recognising that that is not helpful and actually I **need to** have **broad shoulders** and be robust and if **I'm robust enough** to want to put my point across I've got to **accept** what comes back at me. And you know ok! (laughs) um and yeah I it's like standing on you know

There are several military metaphors in Rosemary's speech: *on that front, hold my own, rank gets pulled*. These phrases are part of the conceptual metaphor ARGUMENT IS WAR. This is a common metaphor in public discourse but it is significant because it is consistent with the metaphors of opposition that pervade the account of her experience of influencing the organisation (see 5.5.2). There is conflict between Rosemary's confidence in her competency to win the argument and her lack of power (thwarted autonomy) in being able to make that conversation happen. The self-blame or self-criticism that she expresses is consistent with the work of Skinner et al (2003) that identifies self-blame as an emotion associated with autonomy threat. Rosemary's self-pity (*victim*) response is associated in the sentence with competency (*be robust*) and with autonomy (*accept what comes back at me*). Skinner et al (2003) however associate self-pity with threat to relatedness. It is likely that her victim identity is also activated by feeling unmet, squashed down, and overruled (*rank gets pulled*)

by her managers, which as Rosemary says is not *relational*. Self-criticism, self-blame and guilt are associated with introjection (Brown & Ryan 2003), which is indicated in the above extract (*need to*) colour highlighted pink.

Strategies for dealing with frustration that Rosemary describes include having the conversation, temporarily suppressing the emotion until she can release it through talking to people - both of which seem straightforwardly adaptive. The third strategy mentioned of self-talk to reduce the impact of harmful thoughts (*beating myself up*) on self-esteem sounds a more complicated process.

### **Jay**

Jay uses alcohol to help deal with the frustrations arising from thwarted competency, in a coping strategy of numbing:

*Jay: I'll go home and get drunk (laughs) to get out the frustration.*

*Me: And does that work for you?*

*Jay: No. Drinking is just a temporary block isn't it. It'll stop you thinking about it (laughs) for a while.*

Jay recognises this strategy is maladaptive:

*So I'm quite self destructive with it (laughs). Unfortunately. Whereas I need to get to a balance of start- shake that off and start trying to be constructive with that. And go down the gym, take the tension out in the gym Jay because that'll make you stronger. Rather than drinking which will make you weaker*

Note his use of self-talk in this extract (*Jay, you*). Jay's coping strategy seems to be impeding competency need satisfaction. This is consistent with Self-Determination Theory which states that when psychological needs are thwarted (in Jay's case, competency needs) development of defences (numbing through alcohol) and need substitutes may over time lead to further thwarting of need satisfaction with significant negative consequences for

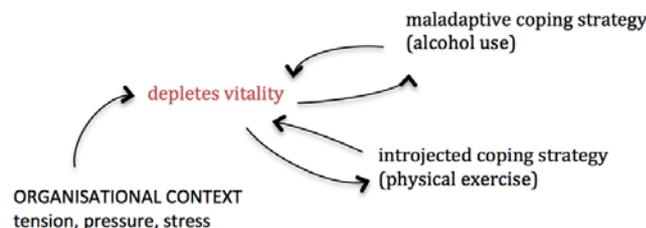
psychological wellbeing including vitality (Deci & Ryan 2000). The negative impact of his coping strategy on vitality is indicated by *weaker*. His alternative strategy of going to the gym seems a controlled regulation of introjection (*need to*) rather than an autonomous motivation, and introjected regulations can be energy depleting (Ryan & Deci 2008). Jay seems to be aware of this on some level because he says:

*And as you know sometimes if you're really tired at the end of the day it's really hard, it's really easy to do one thing which will make you forget about something than it is to actually go out and expel more energy which if you did it right would make you feel more energetic*

From a Self-Determination Theory perspective 'if you did it right' means doing it autonomously - in accord with one's intrinsic choice and integrated sense of self. Jay's use of *you* rather than *I* is possibly a sign of his distance from his autonomous self.

The dynamics between the psychosocial processes are represented in the diagram below.

Fig 5.2 Diagram of negative self-perpetuating behaviour (1)



## Rosemary

In Rosemary's account there is also an indication of negative self-perpetuating behaviour.

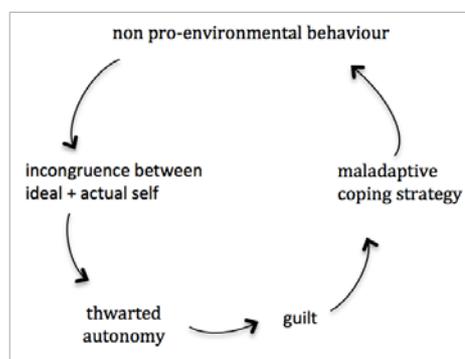
The extract below shows thwarted autonomy and threat to integrity of identity (conflict between ideal self and actual self in terms of pro-environmental behaviour) is triggering feelings of guilt, which are dealt with by non pro-environmental behaviour, thus completing the feedback loop.

*Rosemary: um so I have a vision of my ideal self in terms of environmentalism and then I have the person that I'm managing to be... just knowing that the way I live doesn't have the absolute least impact I could have... I suppose I have guilt about it... What do I do with emotions of guilt? Do you know I don't know that's a really good question (pause) because what goes through my head and my fear is that probably*

*they end up fuelling the behaviour that I'm feeling guilty about*

I show the dynamics between these processes in the diagram below.

Fig 5.3 Diagram of negative self-perpetuating behaviour (2)



Skinner et al (2003) class guilt as an emotion associated with threat to competency, rather than autonomy. In line with this, I did find evidence elsewhere in the interview that suggests some deficiency in capacity to meet **competency** needs - specifically competency in 'living more connected' i.e. living more pro-environmentally:

*The craving that I have to be outside when I'm at work and then my **ability** to access it in my other life you know when I get home and some of the mediations that I have on that um and so yeah that just makes me feel **is there a way** of huh living more connected but living more connected takes more energy and being in this job trying to do this work takes so much energy that I don't know whether I've got the energy to live more like that so its a where yeah there's some sort of an accounting thing I suppose that goes on. Um... hmm*

I discussed part of this extract earlier in terms of balance and measurement (see 5.9.1).

Here, I highlight the introjection and vitality aspects. In Self-Determination Theory guilt is also associated with introjected regulation, and introjected regulation can be energy depleting. The guilt she expresses, and the extra energy she imagines the behaviour will require, both suggest that for Rosemary pro-environmental behaviour (*living more connected*) is not intrinsic or not fully internalised as part of an integrated identity. Her strategy for meeting competency needs at work appears to be thwarting, or trumping, her stated desire for relatedness (*connected*) with nature. In this extract energy is conceptualised as a limited resource, and achieving competency in the job is depleting this

resource, leaving too little left to achieve competency in making meaningful changes in her personal life.

Rosemary is exerting much effort and energy to achieve her desired work goal. This is conveyed in the following quotes.

*Being in the system and trying to alter it is energetically exhausting*

*Maybe it (environment strategy document) takes quite a lot actually of the personal energy that's going in not just from me but from other people within the sector trying to hold back this tide*

*Because I care about that (environment strategy) I want to do a really good job so the pressure is immense*

*I'm working in the environment in an organisation that is doing exactly the opposite of what I believe to be right a lot of the time. And then trying to be the person that's dragging that up and changing it, it's just (pause) oophh (sighs) why would you do that to yourself? (laughs) you know*

*I feel the full pressure of having a job where there is quite a lot of expectation around it*

At the same time, she perceives the organisational context to be one of low congruence and high pressure. Conceptualising herself as working against a much larger and unstoppable force (*hold back this tide*) presumably intensifies feelings of effort, stress and mental fatigue. In an earlier section of this chapter (see 5.4) I explained how the motivational story answers her question of *why would you do that to yourself?* With this kind of experience, having an effective strategy for renewing vitality seems crucial because of the consequences that vitality has for psychological wellbeing and effectiveness (see 2.3.3 for literature).

Participants cited various ways they nourish and re-energise themselves. Common to all was going outside and being in natural places, as I describe in section 5.11 Relationship with nature. Other strategies include taking breaks from work, support from friends and like-minded people, and doing physical exercise. Two participants, Ash and Hazel, also

mentioned being energised through doing the work and achieving results. This is consistent with the understanding that vitality can be generated directly from meeting basic needs (Ryan & Deci 2008), in this case competency needs.

### 5.9.3 Coping strategies

As I have demonstrated, my study shows that tensions are a key feature of participant experience, with consequences for psychological wellbeing, vitality and effectiveness. Some of these tensions are a consequence of psychological threats or challenges, which trigger coping strategies. The literature on coping tells us that the purpose of these reactions is to manage the stress, deal with the adversity and reduce negative emotions in order to return to baseline functioning as soon as possible (e.g. Cramer 1998).

I found evidence of a wide range of coping strategies/defences in use, and have highlighted and discussed these as they arose in the preceding sections of this chapter. In this subsection I collate them together in a table with illustrative quotes or explanations, indicating which participants used which strategies, according to my analysis and interpretation (Fig 5.4). For simplicity I now term them all as 'coping strategies' rather than to attempt to separate them into coping strategies and defences (Cramer 1998) because I found the distinction between conscious/intentional and unconscious/unintentional responses was not always clear. There is a combination of thoughts, emotions and behaviours in these coping responses, and several may be in use simultaneously. For example, in the following quote by Ash we may find bargaining (being committed to his work role justifies inaction in home life) and minor behaviour change (*a little bit*). There is also ambivalence in commitment to action that is congruent across both work and home contexts (*try, but*). This ambivalence is perhaps due to long term 'deep green' identity suppression and low commitment to that identity that I have discussed earlier (see 6.3). Bargaining is an example of rebound (see 2.3.1).

so its become really about being very committed to my role at work and outside of that I try and do a little bit but (voice trails off)

Fig.5.4 Coping strategies

COPING STRATEGY	SPECIFIC RESPONSE	Rosemary	Jay	Ash	Robin	Hazel	Heather	ILLUSTRATIVE QUOTE / TYPE OF EVIDENCE
Denial / disavowal of facts	Rejecting, deflecting, ignoring							
Distortion of facts	Reduce size of threat, trivialise, put threat into future							
Engagement with facts	Seeking information, acceptance/realism	Y	Y	Y	Y	Y	Y	[knowledgeable about facts of ecological crisis, climate change impacts]
Shifting or denial of responsibility	Blame-shifting, denial of guilt, splitting, idealisation, regression, projection, derogation							
	Bargaining			Y				so its become really about being very committed to my role at work and outside of that I try and do a little bit but
Self-enhancement	Diffusion of responsibility			Y				I don't see the answer as being about individual behaviour change I see the answer being about the way we organise ourselves as a society really
	Extrinsic goal orientation, materialistic behaviour, narcissism, identification							
Diversionary or displacement activity	Self-protection, survivalism		Y	Y				gathering resources for yourself, have a nice life and kind of and try buy yourself a nice piece
	Displaced commitment, single action bias, domesticating wild nature							
Non-action	Minor behaviour change	Y		Y				[minor behaviour change in home life]
	Resignation, passivity,			?				could be realism? e.g. but I think as I get older I'm leaning more towards the 'it's going to be pretty bad and there's relatively little we can do about it'
Self-deception	Lazy catastrophism							
	Unrealistic optimism	?		?	?	?	?	[willed optimism could be unrealistic]
Active catastrophism	Wishful thinking, technofix, illusion, delusion							
	Self-destructive acts, wishing for societal collapse							

Fig.5.4 Coping strategies (cont.)

COPING STRATEGY	SPECIFIC RESPONSE	Rosemary	Jay	Ash	Robin	Hazel	Heather	ILLUSTRATIVE QUOTE / TYPE OF EVIDENCE
Avoiding thinking or feeling	Suppressing thoughts/emotions	Y	Y	Y	Y	Y	Y	<i>I put them into the ground</i>
	Compartmentalise	?		Y	Y			<i>I put it in a box in the attic (of my mind)</i>
	Reduce intensity	Y	Y	Y	Y	Y	Y	<i>a little bit scary and depressing</i>
	Intellectualise	Y	Y	Y	Y	?		<i>interesting; [answer with thoughts not feelings]</i>
	Selective attention		?	?	Y		Y	<i>how little thought I give it</i>
	Distancing, depersonalising	Y	Y	Y	Y	Y	Y	<i>that I find scary because one oscillates [switch from "I" to "you/one"]</i>
	Generalise				Y			<i>it's not just me [switch from talking about self to "we"]</i>
	Numbing	Y	Y					<i>[use of alcohol]</i>
	Escapism				Y			<i>[watching TV]</i>
	Disembodiment	Y		Y				<i>[mind-body disconnect]</i>
Pleasure-seeking				Y			<i>[socialising with friends]</i>	
Reducing salience of environmental identity	Willed optimism	Y	?	Y	Y	Y	Y	<i>if I think about it too much it gets a bit bleak so I try and go, "I'm doing good things for the environment!"</i>
	Apathy							
	Suppression		Y	Y	Y			<i>I'm not going to wear sandals bring lentil sandwich to work and have a beard</i>
	Projection	Y	Y					<i>they annoy me a little bit because they're a bit mamby pamby</i>
	Resignation, passivity,			?				<i>could be realism? e.g. but I think as I get older I'm leaning more towards the "it's going to be pretty bad and there's relatively little we can do about it"</i>
	Lazy catastrophism							
	Unrealistic optimism	?		?	?	?	?	<i>[willed optimism could be unrealistic]</i>
	Wishful thinking, technofix, illusion, delusion							
	Self-destructive behaviour, wishing for societal collapse							
	Working with others, seeking external partner support	Y	Y	Y	Y	Y	Y	<i>[working with others in organisation and/or external environmental partners]</i>
Compassion	Considered reflection							
	Self-transcendence values orientation	Y	Y	Y	Y	Y	Y	<i>[concern for others]</i>

Fig.5.4 Coping strategies (cont.)

COPING STRATEGY	SPECIFIC RESPONSE	Rosemary	Jay	Ash	Robin	Hazel	Heather	ILLUSTRATIVE QUOTE / TYPE OF EVIDENCE
Self-talk	Talk to self as if separate person	Y	Y					<i>I need to go into quite a long negotiation with myself</i>
Taking a wider perspective	Consider bigger picture		Y	Y	Y	Y	Y	<i>I kind of put it into the whole pot of what's been achieved</i>
Nature connection	Going outside, being in natural habitats	Y	Y	Y	Y	Y	Y	<i>I like being outdoors and getting into nature as much as possible really. I think it gives me a sense of calm and wellbeing</i>
Physical activity/exercise	Walking, running, cycling	?	?	Y	Y	Y	Y	<i>I find exercise helps me get over frustration</i>
Talking to like-minded people	Getting psychological support from work colleagues, friends, environmental networks	Y	Y	Y	Y	Y	Y	<i>go for a pint with one of my third sector buddies, and have a moan</i>
Mindfulness	Attentional training		Y					<i>I've got a couple CDs with Buddhist chants on them which I sometimes play when I'm mowing... its making me focus</i>
	Self-regulation				Y		Y	<i>I'm getting better at recognising when I feel that sense of tension or worry, so if I can recognise it I'll try do something quickly about it</i>
	Engage with emotion				Y		?	<i>I was conscious going in that I was nervous and anxious... so I tried to kind of recognise that reaction there</i>
Motivational story	Construct and maintain a story	Y	Y	Y	Y	Y	Y	<i>I like to think that I'm making a positive difference</i>
Pragmatic compromise	Adjust to meet organisation			Y	Y	Y		<i>I've changed my approach to embrace that culture which moves slowly</i>

As Fig 5.4 shows, there are some coping responses listed in the literature relating to psychological threat of ecological crisis (see 2.5.3 Fig 2.8) for which there was no evidence in the participants' accounts. These are denial and disavowal of the facts of ecological crisis, blame shifting, extrinsic goal orientation, displacement or diversionary activity (other than minor behaviour change), non-action, self-deception (apart from possibly unrealistic optimism), active or lazy catastrophism, apathy, and considered reflection on death. The absence of all except the latter can be explained by the pro-environmental motivations of the participants to do be in their jobs in the first place. Mortality was not a topic I specifically raised at interview, and the participants did not bring it up themselves.

The strategies listed in Fig 5.9 relate to the participants' experience of working to influence and improve environmental practices in their organisation, but I also observed some coping strategies used during the interview itself. Some participants made use of laughter and the breath e.g. sighing, deep breaths, presumably as a way to release tension they were feeling as a consequence of being asked to think and talk about emotive topics. Jay and Rosemary used self-talk (addressing themselves as if separate person) which serves to create distance; and Jay, Robin and Rosemary used the narrative device of referring to their organisation as 'you', which I interpreted as using the opportunity of the interview to vent frustration by imagining they are saying these things to their managers rather than to me. For example:

*Jay: and its like, no you're setting me back you don't understand this, you're setting us back you're setting the site back because of your own petty little thoughts on what you think is better. And you don't actually know what's better because you don't work here (on site)*

#### **5.9.4 Discussion**

In this section I analysed tensions in participant experience. I began with an investigation into how tension is conceptualised through language and the implications. I then explored the impact of tensions, specifically thwarted needs, on vitality and wellbeing drawing heavily

on extracts from Rosemary and Jay. Having established that tensions can be discerned in participant accounts, and that they can interact with other psychological processes in complex ways creating self-reinforcing feedback loops, I went on to provide a summary of the wide range of coping strategies used by participants to manage these tensions. I also made some observations about how these coping strategies manifested in my study. I now discuss my findings in relation to the literature. My analysis contributes insight about the sources of tension, how tension is conceptualised and experienced, and how tensions are responded to with coping strategies, some of which create more tensions.

- Tensions in experience can be identified through direct description and by analysis of language. Associated with balance.

Finding tensions in participant experience is consistent with the cognitive linguistics and psychology literature. Johnson (1989) explains that interaction with the world requires the exertion of force, and that our entire psychic makeup is experienced in terms of balance. The psychoanalytic perspective is that conflict is the essence of human life (Searles 1972), and that humans are conflicted beings with high capacity for contradiction (Lertzman 2015 p7). In their organisational studies research, Wright, Nyberg & Grant (2012) and Meyerson & Scully (1995) also find that tensions are part of the experience of tempered radicals and sustainability managers in corporations. Tensions are an acknowledged aspect of identity work and emotion regulation in organisations (e.g. Alvesson & Wilmott 2002; Grandey & Gabriel 2015; Brown 2015).

- Sense of relentless pressure is associated with conceptual metaphors LIFE IS JOURNEY and PROGRESS IS FORWARD MOVEMENT, with consequences for wellbeing

I did not find this analysis reflected in the literature I reviewed. Goatly (1997) discusses the conceptual metaphor ACTIVITY IS MOVEMENT FORWARD but not in terms of pressure and wellbeing.

- Frustration is a recurring theme: linked with autonomy, competency and relatedness needs

This is consistent with SDT research. Frustration is an emotion signalling thwarted needs (Pryzbylski et al 2014).

- Satisfaction of competency needs is energising. Thwarted needs have negative impact on vitality

This is predicted by SDT. Satisfaction of needs maintains or enhances vitality (Ryan & Deci 2008).

- Self-blame/self-criticism is associated with thwarted competency and autonomy, and also with introjected regulations

This is consistent with SDT research. Skinner et al (2003) find self-blame is an emotion associated with autonomy threat, and Brown & Ryan (2003) state that self-criticism or self-blame are associated with introjection.

- Self-pity is associated with threat to competency, autonomy and relatedness needs

This is consistent with SDT research. Skinner et al (2003) associate self-pity with threat to relatedness.

- Wide range of coping strategies identified, some in use simultaneously

All the coping strategies I identified have been discussed in some form in either the climate psychology/environmental behaviour literature (see Table 2.8 in 2.5.3), or in general coping, motivation or identity literature. For example, physical exercise was not listed in the climate psychology literature but was in the general literature (Weinstein, Brown & Ryan 2009).

Connecting with nature has been discussed in terms of its wellbeing benefits including restoring vitality (e.g. Kaplan & Kaplan 1989; Ryan et al 2010), but is not mentioned in the climate psychology or organisational studies literature. In terms of outcomes, only the climate psychology and environmental behaviour literature discusses the ecological implications of particular coping responses.

Coping strategies that protect existing identities are a product of the ego-self (see 2.4.2) and are thought not to promote pro-environmental behaviour, in fact it seems they often lead to negative environmental behaviour and can interfere with the capacity to function normally (Crompton & Kasser 2009). As the ego-self is a mode of self-concept that perceives the self as an object that is detached from its surroundings (Ryan & Brown 2003), a sense of interconnectedness with nature is likely to be diminished. The ego-self is linked with ego-involvement, which is associated with sense of pressure and tension (Ryan & Brown 2003; Brown, Ryan & Creswell 2007a) which means that the coping strategies can end up creating more tensions whilst at the same time easing the initial stress. I discuss outcomes of coping strategies more fully in chapter 6.

Each participant used multiple strategies, and some were in use simultaneously. This is both consistent with and different to Petriglieri (2011) who states that individuals may experience multiple threats simultaneously particularly within organisations. She says further research is needed to understand whether individuals employ multiple responses simultaneously,

sequentially, or whether they combine responses into a holistic strategy. She neglects to mention that they could also combine into conflicted strategy that is both adaptive and maladaptive, and that a single threat could trigger multiple strategies, both of which I found.

- Not always clear distinctions between threat responses to ecological crisis and threat responses activated by experience of working to address ecological crisis in organisational contexts

This is consistent with SDT and the coping literature. For example, Weinstein & Ryan (2011) state that coping processes are a function of person and situation factors (citing Lazarus 1999) and that contextual supports can greatly facilitate adaptive stress responses. It is also consistent with psychosocial, phenomenological and embodied realism perspectives that hold that psychological processes are inextricably intertwined with social forces (Clarke & Hoggett 2009; Smith, Flowers & Larkin 2009; Lakoff & Johnson 1999).

- Threat responses seem both conscious and unconscious, cannot be easily separated Cramer (1998) argues for making a distinction between unconscious defences and conscious coping strategies but the coping and identity threat literature generally doesn't make such a clear distinction and the terms 'defence' and 'coping' are often used interchangeably with little consensus about what is and is not a coping strategy (Skinner et al 2003). Vignoles et al (2011) say it's important to view identity as encompassing both explicit and implicit processes and content. Processes are not necessarily inaccessible to consciousness but they may occur without the person necessarily being aware of them (Vignoles 2011). Information can move between the conscious and nonconscious parts of the mind – it is not fixed.

- A chosen coping strategy can be self-destructive, impeding competency and vitality, and involving negative self-perpetuating behaviours. The adaptive strategy is an introjected regulation

This is consistent with SDT. Deci & Ryan (2000) explain that when psychological needs are thwarted, people more readily make accommodations that lessen their direct attempts to satisfy needs. For example, with development of defences and need substitutes that may over time lead to further thwarting of need satisfaction responses. These can become self-perpetuating with significant negative consequences for vitality, integrity and health, effectiveness, connection and coherence. Introjected behaviours less likely to happen and endure over time (Osbaldiston & Sheldon 2003). Sense of vitality is important because it gives individuals great capacity to cope with stress (Weinstein & Ryan 2011).

- Thwarted autonomy and competency, and threat to integrity of identity (conflict between ideal and actual self in terms of pro-environmental behaviour) triggers guilt, which is dealt with by non pro-environmental behaviour, creating more conflict and guilt. The pro-environmental behaviour is an external regulation and is associated with energy depletion

This finding describes a particular self-reinforcing feedback loop with negative consequences. It is supported by the SDT literature. Soenens & Vansteenkiste (2011) observe that when oriented toward extrinsic goals, people will almost invariably experience a discrepancy between their actual and ideal identity, resulting in negative feelings. Guilt is associated with introjection (Brown & Ryan 2003) and threat to competency (Skinner et al 2003). Externally regulated behaviours less likely to happen and endure over time (Osbaldiston & Sheldon 2003) and can be energy depleting (Brown & Ryan 2003). It is also consistent with Meyerson & Scully (1995) who find ambivalence can result in guilt if tempered radicals feel they are not living up to their ideals. Tomashow (1996) regards this

sense of needing to match ideal with actual self as moral stress that can contribute to burnout.

- There is much exertion of effort in achieving desired work goals in organisational contexts of low compatibility and high pressure

This is in accord with Kaplan & Kaplan (1989). They find that to be effective in an environment that undermines compatibility requires considerable effort.

## 5.10 RELATIONSHIP WITH NATURE

Subthemes:	Multi-sensory Spiritual/transpersonal experience Restorative benefit Motivational Appreciate intrinsic value of nature Inconsistencies in sense of connectedness
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The higher order theme of relationship with nature is presented in two parts.

In this first section I analyse the participants relationship with nature, their subjective experience and felt sense of connectedness. I interpret their experience as an adaptive coping strategy but also show that there are tensions and inconsistencies that can be detected in their accounts. In the second section (5.11) I investigate how particular ways of conceptualising nature may be contributing to these inconsistencies and tensions in their felt sense of connectedness with nature. These cognitive frames are interpreted as factors influencing the efficacy of nature connection as an ecologically adaptive coping strategy. I also consider the implications of frames and metaphors for ecological identity and pro-environmental behaviour.

### 5.10.1 Experiencing the natural world

Going outside and being in natural places was a strategy that all participants used to nourish and revitalise themselves. Whether these nature experiences also strengthen ecological identity, as the literature suggests (see 2.4.3), is not possible to ascertain from the data generated.

Most participants described their relationship with the external world of nonhuman nature in some detail, describing subjectively felt experiences involving close observation, multisensory interaction and appreciation of nature's intrinsic value:

*Hazel: I try to take in... the details of nature um... small bugs, bees, butterflies, birds that sort of thing*

*Ash: Uh birds, running water, the wind*

*Jay: you notice different things. You see different things like creatures interacting in different ways or then certain sounds you might and certain smells will start inspiring you*

*Rosemary: It's just, to hear birds singing, to see a bird is just I find it really joyful. To see the sun, to see I sat by a lake on Sunday I was feeling really grotty on Sunday and I went up and sat by a lake and I just watched the sun, the wind- basically the wind was quite calm and the wind made the ripples on the water move down the lake and it brought with it the glistening sun and it was amazing to see it sort of track and that interaction of water and light and pressure, and so I suppose I'm trying to take more time to notice that*

*Heather: when you can hear everything and you can sort of smell outdoor smells and you can sort of touch the grass*

Relatedness with nature is not included in Self-Determination Theory, which defines relatedness needs in terms of human-to-human relationship, but nature connectedness has emerged in my study as an important relationship for the participants for enhancing psychological wellbeing, as the extracts below illustrate. The restorative benefits reported include sense of mental spaciousness and emotional stability:

*Jay: because working in the woods sometimes is incredibly relaxing because you're just at one with what you're doing and you're relaxing with it*

Jay: walking through a wood when you can actually feel the vibes off it... lots of things have energies that they give off that you can feel... If you tune into it... Doesn't mean that a tree has got a mind to think but it will give off a certain energy that you might be able to tap into

Heather: when I feel most at peace, calmest and happiest is sort of being outside with some sort of natural environment... I think when I'm outside particularly if I'm sort of in the Lakes on a mountain I feel completely and utterly at one, you can almost feel like the earth beats I know that sounds a bit sort of em a bit odd but I when you can hear everything and you can sort of smell outdoor smells and you can sort of touch the grass I just feel completely at one with sort of the rest of the planet really, which is quite nice. Em it re-energises me, em gives me sense of peace, it just feels fantastic so that's why I try and get outside when I can

Ash: I enjoy spending time in it I suppose a sense of um feeling more relaxed, enjoying it's a sense of reconnecting I think with em uh... there's a feeling of kind of rightness about being you know when you're walking on a hill or along a valley, by a river, a sense of that's where, a sense of the – it's hard really, a rightness of it?

Robin: I like being outdoors and getting into nature as much as possible really. I think it gives me a sense of calm and wellbeing and I kind of notice it when I haven't had it for a while I guess, more and more so actually as I get older... Yeah and I think in some way it invigorates me and gives me more energy when I do go out so

Rosemary: tremendous sense of calm actually and starts to (pause) give, I don't know, help me reflect.

Hazel: one of the things that I seek out um our lake, which is big enough that it does look like an ocean, you can see forever over it. To go and do that and just rest your eyes on something far away

Jay, Heather and perhaps also Ash's accounts above involve transpersonal states of expanded awareness and fundamental spiritual connection to something beyond the ego-self (*at one with*). Such experiences can be difficult to put into words, as is indicated by Ash (*it's hard really*). Heather reports that she has not shared this experience with others:

*you're the only person that I've described that feeling (of oneness with nature) to... I don't- it's never come up with anybody else before really, and I haven't just I suppose I just haven't shared it really, but it's weird considering it's such a marked thing... it hasn't really come up in conversation, environmental topics obviously have I've given you a couple recent examples, but that sense of feeling at one with nature at one with the planet has not come up before in terms of how, how I feel about it. Maybe because it's quite hard to describe, so I've tried to sort of put it in words but it's, putting a sensation to words is quite difficult*

Rosemary explains how connecting with nature reminds her why she is doing the work, as the difficult organisational context makes her forget (*just remember*):

*so its em yeah just going outside just being outside reminding me that's why I come and do this stuff because that's quite hard sometimes to you know well battling within a public organisation that's going through massive budget cuts and lots of pressure to do this quickly and we've got to do that, to just remember ok that's why I'm doing it out there um*

This motivation effect can be understood in terms of the participants' Motivational stories analysed in 5.4. These stories are about making a positive pro-environmental difference, so nature connection strengthens these self-transcendence values and intrinsic goals.

Most of the experiences described occurred in wild or semi-wild places, and habitats referred to by participants include lake, river, hill, mountain, valley, wildflower meadow, woodland and moorland. But Heather, Hazel and Ash also described how they are able to draw on this practice whilst at or on the way to work in urban environments:

*Heather: (name of city) isn't the greenest city but its still got a bit of flower beds, sort of bit of greenery and stuff so, you can see the sky... I can sort of leave the office and em just go for a walk and even if its like this even if its grey and dull its still uplifting and still quite nice (laughs)*

*Hazel: I have to cross one of the larger rivers – (name of city) has a lot of rivers and ravines in it and so I cross a river every day to get to work, over a bridge. And I and in the winter I take the streetcar which is public transit and in summer I ride my bike. Um and every day I try to catch a glimpse of that river um back and forth, all the time. And the reason I love to do that is because its open, you can just see down the river there's nothing - there's nothing there um and I, you know that's important to me and I always, if I miss it like if I am pushed on the streetcar and I cant see the river I'm kind of like... I miss that*

*Ash: but there are wonderful little fragments of things um but you know they are little fragments in the urban environment just at the edge of this building is a hole which has sort of been adopted as a smoking area I think, there's a whole load of kind of uh really doing quite healthy lavender bushes absolutely swarming with bees last time I was down there couple of weeks ago, really really good*

### **5.10.2 Tensions in experiencing the natural world**

The quotes above demonstrate that being outdoors in natural places is a practice that the participants both experience and recognise as beneficial. Given their pro-environmental values and concerns this is perhaps to be expected. But close analysis of their accounts

shows that tensions and inconsistencies can also be identified. These show up in several ways:

- Subjective felt experience / rational thought
- Directed / involuntary attention
- Controlled / autonomous motivation
- Stronger / weaker quality of connectedness

I now explore each in turn.

### **Rational thought**

In Rosemary's account there is an element of rational cognitive processing that could be detracting (*pickle*) from the quality of her felt experience. This is consistent with the earlier finding that Rosemary regards her relationship with nature as having shifted from *naturally sensitive* to *more knowledgeable* (see 5.6.2). The trigger words are highlighted in yellow.

*I have a sort of intellectual interest in that like how does that work and how does this work, but actually just to be in wonder of it you don't naturally need to know all of that stuff, it's all interesting if you want to go down the rabbit hole of it but you can get yourself in a bit of a pickle because nobody knows everything (laughs)*

Recalling Kaplan & Kaplan's (1989) work on Attention Restoration Theory, the soft fascination of full engagement in the pleasurable context of nature calls forth involuntary attention which is relatively effortless, and so directed attention is rested and mental fatigue eased. In putting conscious effort into thinking about how nature works, Rosemary may be further working, rather than resting, directed attention, which would have implications for the effectiveness of nature connection as an adaptive coping strategy.

### **Directed attention**

Use of directed attention is also indicated by the effort that is expressed (*try*) as illustrated in these quotes:

Rosemary: *trying to take more time to notice*

Hazel: *I try to take in (pause) the details of nature um (pause) small bugs, bees, butterflies, birds that sort of thing*

Robin: *try and get out for a bike ride or weekend away*

Hazel explains why effort is required, highlighting the strong priming effect (*swept up*) of modern consumer culture:

*I find I have to be intentional about it because you could easily get swept up into the 'I gotta go shopping' you know do all these chores and details to keep the house running, and whatever, (keep) the kids happy and this that and the other*

Connecting with the natural world requires attending to it, and it seems that at times this requires effort, which involves directed attention. However, once the attention has been directed, it could be - as the quotes in 5.10.1 suggest- that they settle into the experience and involuntary attention takes over enabling restoration.

### **Controlled motivation**

Some participants reported not doing these practices as often as they say they want to or should, or their accounts contain contradictions or ambivalence suggesting behaviours are not intrinsically interesting or enjoyable or deemed sufficiently important, or the behaviours are perceived as requiring more time and energy than is available. This could indicate the activity is not fully autonomously motivated.

Robin: *I probably don't get enough of it (nature) living in (name of city) (laughs)*

Rosemary: *I go running and I go cycling sometimes and I like I like that particularly the running, the relationship between my body and the earth... sometimes going for a run can feel um more about I have to do it and it's a chore thing*

Rosemary: *my struggle has been moving away from (having) horses... I've not found something as compelling as that to replace it with, and I suppose I'm, so I have these going-away-for-a-week experiences but I haven't quite managed to find something daily and I'm still seeking that.*

Jay: *I tend not to interact with nature at all when I'm out of work now because I interact a lot when I'm at work. Much to my (pause) um (pause) I've put too much effort into work because I've needed to so I don't get any time at home now. So*

*that's a rebalance I need to make over the next few months to regain that interest... whereas normally what I enjoy, what I used to enjoy is going out for walks places like (name of national park) actually just being in it or going out camping and thinking right I've no hassle here with this.*

As has been previously noted, Self Determination Theory predicts that controlled motivation for a behaviour makes it less likely to be performed, or be performed effectively.

### **Quality of nature connectedness**

Analysis of participants' accounts shows that there are times when they feel closer to or more part of nature and instances when they feel more distant or detached. Sense of connectedness was more likely to be weaker in urban environments, when indoors, or when preoccupied with thoughts:

*Ash: I think its I think its easier to forget about it (nature) here (in the office in town)... there's almost a sort of once there's an out of sight out of mind isn't there and the risk I think with some of this is if its just not around you at all you'd think you miss it but you don't wander around going where are the bees... I think being in any city immediately makes you feel apart from it*

*Robin: I have less relationship with it (nature) at work because I'm probably, I don't feel like I'm in it in some ways, I'm in an office building for 90% of the time... yeah my enjoyment of being in nature I don't really kind of bring it into work I guess... whereas in my personal time I can actually get out and be a part of nature... I'm probably thinking about it more when I'm in it (nature) that when I'm not. Yeah so it's probably a natural consequence of actual location, the physicality of the environment*

*Hazel: We don't in an urban setting we don't have a lot of reinforcements that we are part of nature and the ones that are there you need to seek out you need to be intentional about it*

*Ash: More likely to feel content when my heads not full of work and that sort of stuff. Um (pause) I don't know beyond that really... So whether you're feeling in a fairly open, you know, if you're not preoccupied, in a more open-minded slightly more philosophical place I think you're in a better place to respond, embrace it a bit more fully I think. If you're busily preoccupied with domestic stuff or work in your mind, I think your mind inevitably turns in on itself I think.*

*Jay: if I was really stressed I wouldn't notice that little Blue Tit that keeps sitting on there pecking*

Heather found keeping a diary as part of the research insightful because it made her aware of the difference between how she feels indoors and outdoors:

*yeah its weird it's just not the same inside, I just feel like a sense of, being inside sort of sort of it's like a deadening sort of feeling, I feel less energised, less awake, less alert um its it's quite marked really*

From these accounts it would seem that connectedness with nature is stronger when a person is present with mind and body in a natural habitat. Which is clearly problematic with both continuing destruction of natural habitats, and the ever-increasing number of distractions in modern life.

### **5.10.3 Discussion**

This section analysed and discussed the participants' relationship with nature in terms of their subjective experience and felt sense of connectedness. I now discuss my findings in relation to the literature. My analysis contributes insight about tensions and inconsistencies in sense of connectedness.

- Going outside and being in natural places is a strategy that all participants used to nourish and revitalise themselves

This is consistent with the body of research on nature connection and wellbeing (e.g. Frumkin 2012; Kaplan & Kaplan 1989; MIND 2007; Mayer et al 2009; Nisbet et al 2011; Newton 2007; Howell et al 2011). SDT research also finds being outdoors and in natural places has a vitalising effect (Ryan et al 2010), however SDT does not include relatedness to the natural world as part of its theory on basic psychological needs; it only defines relatedness in terms of human-to-human relationship.

- Transpersonal states are difficult to put into words, and not shared with others

This is consistent with Claxton (2000) and Davis et al (1991).

- Nature connection experiences can serve as a reminder of why the individual is doing the work, in difficult organisational contexts that undermine the initial pro-environmental motivation

This finding is in accord with literature on strengthening ecological identity and intrinsic goals through positive and non-egocentric encounters with the natural world (Schultz 2000; Brown & Kasser 2005; WWF 2011; Lakoff 2010; Weinstein et al 2009; see also Whiteman & Cooper 2000; Guthey, Whiteman & Elmes 2014). The possibility for the organisational context to support or undermine particular goals is explained in the literature i.e. the strength and salience of values in individuals is influenced by the relative strength of these values in wider society (Kasser et al 2004; Uzzell & Rätzzel 2009; Flouri 1999; Alexander & Crompton 2011).

- Tensions in nature connection experiences between: subjective felt experience and rational thought, directed and involuntary attention, controlled and autonomous motivation

This interpretation was informed by SDT (Deci & Ryan 2000) and Attention Restoration Theory (Kaplan & Kaplan 1989). Osbaldiston & Sheldon (2003) report that introjected behaviours less likely to happen and endure over time. However, I have not found this interpretation reflected in the literature on nature connection, which tends to focus on the relationship between nature connection and wellbeing, not tensions or inconsistencies in felt experience.

- Stronger sense of connection with nature when outdoors, in a natural place, and with an attentive mind

This finding is not reflected in the psychology literature on nature connectedness that I reviewed, which did not investigate strength and salience of ecological identity in different

situations. However, from an organisational studies perspective Whiteman & Cooper (2000) propose that managers located outside in local ecosystems develop a greater sense of ecological embeddedness and have a greater commitment to sustainable management practices than managers who are physically located inside buildings. The importance of attending to present experience for connection is explained in the mindfulness literature: it is through attending to cues that connection is established and maintained (Shapiro & Schwartz 1999; Brown & Ryan 2003; Kabat-Zinn 1990; see also Whiteman & Cooper 2011).

- Lack of visual cues in work setting do not help keep ecological identity salient

This finding is not reflected in the literature on nature connectedness that I reviewed.

Psychology research on nature connection in office settings has focussed on stress recovery and wellbeing (e.g. Kahn, Severson & Ruckert 2009). An emphasis on health and wellbeing benefits is also in ecopsychology literature on nature and architecture in urban environments (e.g. Joye 2012). The proposal that being located outdoors is more likely to foster a sense of ecological embeddedness in managers than being indoors is also relevant here (Whiteman & Cooper 2000).

- In social contexts that prime other identities and goals e.g. consumerism, activating a felt sense of connection with nature takes some conscious effort and intent

This finding is not reflected in the literature on nature connectedness that I reviewed, but it is in accord with literature on values that states that the strength and salience of values in individuals is influenced by the relative strength of these values in wider society (Kasser et al 2004; Uzzell & Rätzl 2009; Flouri 1999; Alexander & Crompton 2011). According to SDT, people tend to internalise the values and regulations of their social groups (Deci & Ryan 2000). Without mindful awareness, people are likely to react to social stimuli, pressures and seductions automatically (Deci et al 2015).

## 5.11 CONCEPTUALISING NATURE

I identified several frames and metaphors in participants' accounts that may be contributing to tensions and inconsistencies in their felt sense of nature connectedness. In this section I analyse these conceptualisations, and with reference to the literature, consider the implications of these frames and metaphors for ecological identity and how they could shape responses to ecological crisis. My analysis contributes insight about the role of these frames as factors influencing the efficacy of nature connection as an ecologically adaptive coping strategy.

### 5.11.1 Nature is the external non-human world

When talking about their relationship with nature, participants referred to the external other-than-human world of plants and animals, woodland, hills, lakes and other habitats, and phenomena such as sun and wind. Whilst stating a belief that humans are part of nature, and with two participants stating a felt sense of oneness, there was only one explicit reference to nature as part of self: Rosemary once uses the term *my animal body*.

This absence of a NATURE IS SELF conceptualisation could be to do with the way I framed my questions, and of course in everyday discourse 'nature' is commonly understood as the external nonhuman world around us. The meaning of the term 'nature' as 'phenomena of the physical world not including humans' dates to the 1660s (OED Online 2015; Etymonline 2015).

Yet as has been previously argued (see 2.4.3, 2.7.2 for literature), human-nature separation also manifests as an internal separation of aspects of the self that are regarded as associated with nature: intuition, instinct, emotion, the physical body, and the unconscious mind.

Connecting with nature is not just about the external world; it is also about connecting with the inner world of the psyche. Nature connection can be understood as reciprocal: we are part of nature and nature is part of us. If the latter is not recognised, this has implications for mind-body integration and possibly also pro-environmental behaviour. The ecopsychology literature emphasises the importance of reconnecting deeply to wildness within the self as an essential part of the project to live more harmoniously with the Earth (e.g. Hasbach 2012; Totton 2011).

### **5.11.2 Sensory representations**

Participants' references to the nonhuman natural world include terms describing habitats such as *woods, valley, wildflower meadow, mossland, mountain* and *coast*, particular plants and animals such as *bees* and *lavender* as well as *wildlife, living beings* and *creatures* more generally, phenomena such as *wind* and *sun*, and references to *earth, sky, planet* and *land*.

These terms are vivid in their evocation of particular living beings, habitats and natural phenomena and invite a close sensory relationship (Stibbe 2014). From a cognitive linguistics perspective, this could be because these terms belong to 'basic-level categories' of cognition – they evoke sensory representations and are at the level that a person can interact physically (Lakoff 1987). Basic-level categories are processed faster in the mind and are recognised more easily (Lakoff 2012). 'Super-ordinate categories' are more abstract, meaning sensory evocations are less immediate. Examples of super-ordinate terms that participants used include *species, biodiversity, ecological systems, ecosystem, environment, natural resources, natural asset, natural capital* and *green infrastructure*. These seem much less vivid with just a faint trace of the living world to which they refer.

However, I find some terms could be interpreted as neither basic-level nor super-ordinate but as belonging to some intermediate category: for example, *woods* is less abstract than *green space* but more abstract than e.g. 'dumble' (meaning a narrow, steep-sided wooded valley), which is the kind of precise, situated, evocative language that Macfarlane (2015) finds to be dying out in Britain (see 2.4.3).

*Nature, greenbelt, green space, environment* are examples of mass nouns (Larson 2011; Stibbe 2006). Mass nouns are abstract and generalise, rendering the particularity of individual living beings absent. As Stibbe (2014 p595) says, "when trees, plants and animals are represented in mass nouns, they are erased, becoming mere tonnages of stuff". Use of abstract terms may encourage homogenisation of nature, which Plumwood (1993) argues is a characteristic of human-nature dualism (see 2.7.2). Some mass nouns however have more evocative power than others: *greenbelt* and *green space* for example invite visual colour images of plants, grass and trees.

Close sensory relationships with the particularity of the nonhuman natural world are more likely than vague abstract relationships to strengthen ecological identity, and to turn states of felt connectedness into enduring traits (see 2.4.3). As ecophenomenologists Brown and Toadvine (2003 p.xi) say, "approaches to nature that strip it of all experienced qualities leave us with an unrecognisable abstraction, and certainly not with any version of nature that could have inspired our initial appreciation".

### **5.11.3 Nature is Place/Object**

Phrases such as *getting into nature, being in nature, spending time in nature, green space, natural space* position nature as a physical place and as an object. With the phrase *in nature*, nature is conceptualised as a particular type of object - a container - that a person can be

within or without (see 2.6.2 for explanation of theory). The concept of nature as a container is also conveyed by phrases like *in the woods*.

As explained in the literature review (see 2.6.2) objects have boundaries that separate them from other objects (Johnson 1987). The conceptual metaphor NATURE IS PLACE/OBJECT means nature can be somewhere where we are not. In other words it sets up the possibility for separation, which is precisely what the participants are seeking to overcome by *being in nature*. There is a conceptual implication with *being in nature* that the default condition is 'outside' the container of nature. Participants also associated nature with *outdoors* or *outside*; it is defined in relation to human culture, specifically buildings. The terms *natural environment* and *greenbelt* convey separation but in a different way: here nature is an object that surrounds, rather than a container in which a person can be immersed (Lakoff 2010). NATURE IS PLACE is not an inaccurate metaphor, all living beings need physical places to live, and it is through an intimate caring relationship with a particular place and its inhabitants that ecological identity may be strengthened (see 2.4.3). But metaphors are incomplete representations and NATURE IS PLACE obscures other ways of conceptualising nature such as NATURE IS EVERYWHERE, NATURE IS PERSON/SELF or WILDERNESS IS STATE OF MIND. These conceptualisations do not rely on being in a natural place for connectedness to be felt, and may also foster integration of parts of the self and a 'rewilding' of the psyche (see 2.4.3 for literature on this).

Object metaphors enable the target to be manipulated. As explained in the literature review (see 2.6.2), this framing makes the natural world an object that we do something to (Larson 2011). Objects, including mass nouns, can be quantified as these phrases used by the participants show: *a bit of nature, I don't get enough of it (nature)*. This is also what is happening with the phrase *green the town* - there is an amount of nature that can be

increased or decreased. Hazel talks about making note of nature *even in the um you know the chopped up sense that we've got in the urban setting.*

Object thinking highlights the properties that define an entity rather than the relationships between entities. In this way NATURE IS OBJECT is reductionist and obscures alternative conceptualisations such as NATURE IS PROCESS and NATURE IS COMPLEX DYNAMIC SYSTEM where the relationships between entities and parts of the system are foregrounded. It may encourage thinking that nature can be controlled and manipulated without negative unintended consequences through geo-engineering, for example. NATURE IS OBJECT allows for ownership of the object, and this allows for commodification and exploitation (Goatly 2007), as I explore next. There are inherent power issues in NATURE IS PLACE – who determines who has access to what, and on what terms? Whether natural places are accessible or inaccessible has consequences for development of ecological identity through encounters with the nonhuman natural world.

However, it is important to remember that object thinking is not innate: there is some evidence that people in the West tend to use object thinking whereas in the east they tend to use process thinking (Nisbett 2003). In the literature review I noted that a subject-subject frame is used in some indigenous cultures for conceptualising their relationship with the natural world (see 2.6.2).

#### **5.11.4 Nature is Economic Resource**

In referring to the natural world, some participants used phrases such as *natural asset*, *natural capital*, *capital value*, *ecosystem services*, *green infrastructure*. The conceptual metaphor in use here is NATURE IS ECONOMIC RESOURCE, which foregrounds the instrumental value of the natural world as a resource to be exploited for human ends, privileging financial

interests and reinforcing materialistic goals (Crompton & Kasser 2009; Blackmore & Holmes 2013). It obscures a view of the living world as having intrinsic value (Lakoff 2010; Stibbe 2015; Larson 2011). As Ash explains, under capitalism,

*Resources are there to be consumed and turned into a higher value product and sold and we make monies and some do better out of that than others*

Conceptualising nature as an 'asset' is unlikely to invite an emotional connection, and terms such as 'developing land' conceal facts that living beings are being killed (Stibbe 2014; Trampe 2001).

With the idea of resource in an Economic frame comes ownership, because it is through having control of the resource, which is mostly achieved by owning the land, that nature can be commodified and exploited (Goatly 2007). Note the possessive adjective in the following phrase by Rosemary: *responsible use of our natural assets as an economic driver*. At another point in the interview she also refers to *stewarding our natural assets*, which contains conflicting ideas of ownership and stewardship. Goatly (2007 p98) points out that "the notion of private property relies on one of the grounds of the Container schema: the notion of a dividing line between inside and outside". The 'our' pronoun turns nature into human possessions rather than beings in their own right (Stibbe 2007).

I found the Economic frame to recur frequently in participants' accounts of influencing environmental decision-making in their organisation. For example *making the business case, investment in the natural environment, fuel poverty, cost reasons, financial argument, save money, budget, payback*. As Ash says in these two extracts,

*It's all got to be a very bish bash bosh kind of uh technical, professional, financial answer for why we're doing things... so where there's either a direct financial incentive or a clear and present financial penalty*

*but its been a long time since I heard anyone even moot the prospect of recovering space for, for nature, because where's the business case*

The natural world is commonly framed in economic and instrumental terms (Lakoff 2010; Larson 2011; Goatly 2007; Stibbe 2015).

With the public sector in the UK under extreme pressure to cut spending, such an overt focus is understandable but use of economic metaphors in describing their experience was also more subtle: *sell a project, buy into (an idea), spend/buy time, at the expense of, offset, invest (energy), we can capitalise on, he's our asset.*

#### **5.11.5 Time is Money and Attention is Resource**

A conceptual metaphor linked to the Economic frame is TIME IS MONEY as in the phrase *spend time* where the entailment is that time is a resource of monetary value. All the participants used this metaphor, including in direct reference to time 'spent' interacting with the non-human natural world.

Swim, Clayton & Howard (2011) state that, "Western culture is built to a great extent on treating time as a resource that is maximised at the expense of natural resources" (p260). This is because fossil fuel energy is used to improve efficiency and productivity. Lakoff & Johnson (1980) also argue that the Westernization (i.e. industrialisation and consumer capitalism) of cultures throughout the world "is partly a matter of introducing the TIME IS MONEY metaphor into those cultures" (p145). These views suggest that as this metaphor becomes more ubiquitous, an economic of framing of nature is likely to gain strength globally.

As I discussed in the preceding chapter, connecting deeply with the natural world involves attending to it (Whiteman & Cooper 2000, 2011). Attending takes time. In everyday discourse attention is conceptualised as an object that can be 'caught', 'held', 'given' and

'taken'. With 'give' and 'take', attention is an object in a transaction: it is a resource. The possibility for the giving or taking of attention to be a transaction of value is particularly raised by the phrase *pay attention*, which was used by one participant and is a phrase common in public discourse.

If a person is in a natural place with a TIME IS MONEY and ATTENTION IS RESOURCE attitude salient, would this make any difference to their felt sense of connectedness? It is not possible to answer this with the data available but it would be very interesting as a topic for future research. My proposal is that it may involve some directed attention and controlled motivation, resulting in reduced restorative benefit. Furthermore, I suggest that the interaction would be approached with a subject-object rather than subject-subject frame, with the attendant implications for pro-environmental behaviour already discussed.

#### 5.11.6 Size is Importance

Of all the frames I identified from the interview data, the Quantity Frame was, appropriately enough, by far the most numerous. In the section on tensions in experience I noted that the experience of balance involves measurement and is therefore part of a Quantity frame (see 5.9.1). Earlier in this section I pointed out that the term *nature* is a mass noun that is often quantified, as in *a bit of nature*. The conceptual metaphor within the Quantity frame I will now focus on is SIZE IS IMPORTANCE. This metaphor conveys the value that more is better and that bigger is better. The following examples illustrate the judgement that big has more value than small. Trigger words are highlighted in yellow:

Rosemary: *really very fearful actually of addressing the big issues that as a public service we should be... I think that's the role of what I'm doing now is to bring big questions to the surface and say to people these do need thinking about*

Jay: *Um so what I do now is try and go even further and think screw that I'll make it even bigger, we'll get involved in this and that, and then you'll get invited to this and it'll be too big for you to all sort of claim because it's already done*

Ash: *the Lib Dem administration although they're a minority administration here have been supportive*

With a global economic system based on continual growth where PROGRESS IS FORWARD MOVEMENT, it makes economic sense in a world where TIME IS MONEY for growth in size to be also linked to acceleration in speed. In this way more of the planet is 'developed' at ever increasing speed, aided by proliferating technoscience innovations that require increasing amounts of energy. Taylor (2014 p329) argues that in a capitalist system where time is money, increased energy use and pollution is created by an addiction to speed, which results from unquestioned commitment to economic growth. SIZE IS IMPORTANCE is then a very powerful metaphor in modern industrial growth societies.

Yet the intimacy of relationship with nature illustrated in the examples earlier (see 5.10.1) is in the detail of observations that as I interpret it requires a quality of smallness, slowness and closeness. Such intimacy supports a strengthening of ecological identity based on a relationship of care to a particular place and its inhabitants (see 2.4.3). In the following statements there is a tension that can be discerned relating to SIZE IS IMPORTANCE:

Rosemary: *If you have horses then you can- there's a perception you go all over the place and stuff on them but you don't you actually have quite a small boundary and quite grounded by them because you have to stay looking after them all the time. So you you know its only a small radius of place that you get to really although you do spend quite a lot of quiet time in it.*

Me: *How often do you get out?*

Rosemary: *Em well on a small level every day because I've got a dog but she's now quite old so we don't go as far as we might do or often that I want to she decides she doesn't want to go (laughs) oh ok then that's as far as we're going! Um and I go running and I go cycling sometimes and I like I like that particularly the running, the relationship between my body and the earth, and the um.. the expansion of your own territory and what limitations and stuff there are to that, and actually the the yeah the experience of literally transporting yourself over it gives you a very different relationship but I like you know I like just to sit (laughs) there as well and I um I suppose so a couple weeks ago I did a walk in Wales in the Gower that just walked us all the way through every day and I'd love to do a lot more of that um but its um*

I find something apologetic in the use of *only a small radius* in the first quote, and in the second quote I find a playing down of significance with *small level*. The laughter after disclosing she likes *just to sit* is also to my mind apologetic, and I interpret it as relating to the size of the activity: *just sitting* is not doing very much. Note also the TIME IS MONEY metaphor in the first quote.

These findings are consistent with the view expressed by Taylor (2014) in his study of speed: “waiting bestows the gift of time, which is nothing less than life itself. When life slows down, it becomes possible to reflect thoughtfully on what usually rushes by too fast for us to notice. To managers and investors obsessed with efficiency, productivity, and profitable returns, such idle reflections appear to be a useless waste of time” (p345).

Slowing down is also a key feature of mindfulness, to being present with what is. The desire to do more than *just sit* may be a defence against confronting parts of the self that are wounded, that have been rejected or denied and are difficult to accept (Kabat-Zinn 1990; Santorelli 2000; Nhat Hanh 2012). Yet connecting with these parts of the self, into our bodies, and feeling the accompanying emotions, is part of the journey towards wholeness and strengthening a sense of self as nature and as part of nature (Rust 2008; Totton 2011).

Cultivating an ecological identity that centres on an embodied relationship with a place and its inhabitants requires resources of time and attention and a quality of patience. Yet because of decades of inertia, the urgency for adaptive responses to ecological crisis is creating need for speed. This is an awkward tension. A SIZE IS IMPORTANCE social context primes us to be fast and busy and see more as better, and countering these internalised regulations to cultivate ecological identity takes mindful awareness and conscious intent. Combined with abstract and homogenising language, SIZE IS IMPORTANCE could be

encouraging an abstract relationship with the nonhuman natural world, and this has implications for pro-environmental behaviour as previously explained (see 5.11.1).

#### **5.11.7 Human/Nature is Machine**

“The faster we go” Taylor (2014) says, “the more we forget, and the more we forget, the less we know who we are or where we are going” (p345).

Humans are a species of animal that have co-evolved over millennia with other species. Use of mechanistic metaphors by participants to describe their experience could be interpreted as evidence of human-nature separation (see 2.6.2, 2.7.2). Mechanistic metaphors were also used to talk about the natural world. I identified the following mechanistic metaphors in participants’ accounts:

- Wind down, wind me up
- Process (emotion/thoughts)
- Re-engineer
- Operating on
- Trigger
- Brain switches off
- Drop off the radar
- Plugs into
- Chain of command
- Keep the house running
- What makes us tick
- Full steam ahead
- Drive, driver
- Fuel
- Park
- Rusty
- Motoring
- Pump out
- Default
- Leverage
- Nuts and bolts kind of guy
- Gone off the rails

Mechanistic metaphors imply that nature can be figured out and possible to manipulate and exploit (Goatly 2007; Harré, Brockmeier & Mühlhäusler 1999). Machines do not have feelings, so another entailment is that nature does not have feelings, which makes living beings easier to exploit. “Is it not strange” Larson (2011) asks, “that we are more comfortable with mechanomorphism, understanding the world through machine metaphors, than anthropomorphism?” Nature is more likely to be like us than our machines, he

concludes (p63). With a Mechanistic frame, the mystery and complexity of natural phenomena is downplayed, and the idea of human superiority and ability to control nature through technoscience is promoted. The belief that humans can technofix their way out of climate crisis arises out of this conceptualisation (Stibbe 2015). The machine metaphor also denies the natural world of its aliveness, of it comprising of living beings with their own intents and purposes (Stibbe 2015).

### 5.11.8 Human (culture) is Living Being

Although less frequent, organic metaphors were also used by participants in talking about humans and human culture - including our machines. I list the phrases and metaphors in the table below. Perhaps these metaphors are a sign that at the same time as hyperseparation, there is still deep in our psyches some recognition and felt sense of humans as part of nature.

Fig 5.5 Human (culture) is living being – metaphors and illustrative quotes

Conceptual metaphor	Illustrative quotes
TECHNOLOGY IS LIVING BEING	<i>that's nearly dead is it really viable</i>
ACTIVITY IS LIVING BEING	<i>its clearly dead as a project natural kind of just teething part of the project</i>
IDEA IS LIVING BEING	<i>roots of capitalism keeping a journal really sort of brought that to life for me</i>
HUMAN IS ANIMAL	<i>he was a lone wolf before me</i>
THOUGHTS ARE ANIMALS	<i>keep track of my thoughts</i>
EMOTIONS ARE ANIMALS (TO BE BROUGHT UNDER CONTROL)	<i>I try and rein it (energy &amp; enthusiasm) in</i>
ACTIVITY IS HUNTING	<i>chase a better share price</i>

### 5.11.9 Framing of nature in organisational discourse

I studied organisational documents relating to environmental policy and strategy to get a sense of the language used in the organisation that the participants might be exposed to,

and primed by. I was unable to access any documents from Heather's organisation. Across the documents I did access, there were several frames that recurred:

- Economic (e.g. asset, ecosystem good and services, invest, natural capital, stocks, growth, employment, competition, prosperity, economic driver, costs, risk, tourism, efficiency, resources depletion, low carbon economy, fuel poverty)
- Challenge/opportunity. This frame is linked to Economic frame because the opportunity is to develop economic growth, create new jobs etc.
- Threat of climate change (e.g. *risk, safety, security, resilience, danger, safeguard*). This frame is linked to social wellbeing/cohesion and is to do with threats to the physical environment such as flooding, as well as threats to food and energy security
- Problem/solution. This frame is linked to Threat frame
- Social wellbeing (e.g. recreation, relaxation, pleasant and interesting place to visit, educational, health, improving lives, affordable warmth)
- Protector/Defender (e.g. *fragile, rare, legally protected, looking after, conserve, enhance, eradicate invasive species, damage, loss*). This frame is mostly linked to Economic and Social wellbeing frames, also on a couple occasions to intrinsic value of nature
- Working Together (e.g. *partnership, volunteers*) to solve problems and realise economic opportunity, build social cohesion

The documents generally acknowledge the seriousness of climate change and to a lesser extent degradation of the natural environment but omit to provide explanation of the causes of climate change and habitat loss/damage. Humans as the source of ecological crisis is not explicitly referred to. The documents are anthropocentric in focus: the instrumental value of nature is emphasised (for primarily economic and secondarily social wellbeing benefits) with intrinsic value rarely mentioned. Nor was the impact of human behaviour on other species explicitly articulated.

Listening to the audio recording of the meeting Rosemary had selected, the primacy of Economic frames is immediately noticeable. The meeting is discussing the devolution of natural 'assets' from regional authority to local councils and other organisations. The following statements made by her colleagues sum up the dominant approach taken in the meeting:

*whoever owns the asset will be taking the risk - we want to get that liability off our balance sheet and anything that comes with it*

*the ones that aren't valid we don't care whether they shut it, build on it, do whatever they bloody want because we want it off our books*

*making sure we don't put in place a strategy that constrains the political will of giving things away, don't want to use a criteria of assessing a town councils capability*

These statements seem highly extrinsic goal oriented with little concern for the natural places themselves, or their inhabitants. Rosemary can be heard attempting to challenge this approach but is often talked over. Mobile phones are buzzing and ringing throughout and the half hour meeting degenerates at the end into several conversations taking place at the same time.

Whilst the organisational documents and the meeting audio recording analysis are far from comprehensive studies of organisational discourse, it gives a hint of the language in use which may be priming the research participants to conceptualise their experience at work generally and nature in particular in economic terms. As noted in the literature review, the Economic frame is predominant in neoliberal industrial growth societies (e.g. Lakoff 2010; Dryzek 1997; Dunlap 2008; Michaels 2011) such as the UK and Canada where the participants live and work.

### **5.11.10 Discussion**

In this section I analysed various conceptual metaphors and cognitive frames that may be contributing to tensions and inconsistencies in the participants' felt sense of nature connectedness. I now discuss my findings in relation to the literature. My analysis contributes insight about the role of these frames as factors affecting the efficacy of connecting with inner and outer nature as an adaptive coping strategy.

With the exception of ATTENTION IS RESOURCE the various frames and metaphors about nature I identified have been discussed in linguistics literature (e.g. Goatly 2007; Larson 2011; Lakoff & Johnson 1980; Lakoff 2010; Stibbe 2015). SIZE IS IMPORTANCE has not been analysed in the specific context of environmental responses, and none of the metaphors have been discussed in this literature or any other I reviewed as factors affecting the efficacy of nature connection as an ecologically adaptive coping strategy. I found no literature specifically examining frames and metaphors about self-nature relationship and their implications for enacting pro-environmental responses.

## **5.12 CONCLUSION**

This chapter has provided an in-depth and highly nuanced analysis of participants' accounts of their experience of working to influence and improve environmental policy, strategy and practice in their organisations. The analysis has been structured by higher order theme, in accordance with the methodological framework of Interpretative Phenomenological Analysis (Smith, Flowers & Larkin 2009). These themes emerged out of the data analysis process explained in chapter 4, and the interpretation was informed by theories of psychological threat coping and defence, Self-Determination Theory, environmental/ecological identity, and cognitive frames. Preceding the micro-analysis were pen portraits of each participant, to

give the reader a sense of each participant and the complexity of their experience before embarking on the journey through the cross-case themes.

Each themed section concluded with a discussion of the findings in relation to the literature, specifying how the findings are consistent with, different from or additional to existing knowledge, based on the literature I reviewed. In total the micro-analysis generated 73 separate findings that are fairly evenly spread across the higher order themes. In general, I find a high degree of consistency between my findings and the literature, which gives support to my results. But what is evident is that my findings do not merely replicate existing knowledge but offer additional insight, enriching our understanding of psychosocial processes involved in the lived experience of sustainability managers and leaders. In the next chapter I extract the key insights from the analysis in this chapter to address RQ2 and RQ3, and in the final chapter of this thesis I propose the key theoretical contributions of my study.

## 6 PSYCHOSOCIAL FACTORS

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### 6.1 INTRODUCTION

Chapter 5 addressed RQ1 by presenting the key themes in participants' accounts that emerged out of the data analysis process, showing how they manifested and highlighting the points of convergence and divergence between participants. This was a highly nuanced and in-depth narrative, and each section concluded with a discussion of the findings in relation to the literature.

The information generated in chapter 5 provides the material for addressing RQ2 and 3, which is the focus of this chapter.

RQ2 What psychosocial factors can be identified that influence the participants' enactment of pro-environmental values in their work? How do they interact as processes?

RQ3 What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?

I now present key insights emerging from the in-depth analysis presented in chapter 5 with respect to factors influencing enactment of pro-environmental values, and their implications.

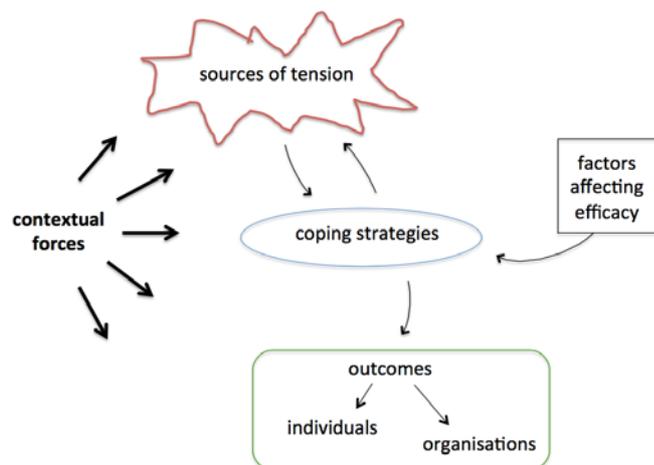
To avoid repetition I don't go into detail about the findings behind the insights – instead references are provided to the relevant section in chapter 5 where the reader can find the full explanation. Included in this chapter are two models that I constructed to visually represent some key interactions between processes. These models were developed from cross-case analysis using an inductive approach (see 4.3.1 for explanation of methodology).

These models are discussed in relation to relevant literature.

## 6.2 KEY INSIGHTS

This section takes a systemic approach to presenting key insights about psychosocial factors influencing enactment of pro-environmental values. As shown in Fig 6.1 below, my findings relate, directly or indirectly, to psychological threat coping strategies: they are either sources of tension, coping strategies used to negotiate tensions, outcomes of coping strategies (which are ecologically adaptive or maladaptive), factors influencing the efficacy of coping strategies, or contextual factors (organisational and macro i.e. cultural worldviews) influencing one or other of these aspects. I now discuss each in turn.

Fig. 6.1 Key factors as they relate to coping strategies



### 6.2.1 Sources of tensions

In my analysis and interpretation of data I identified various sources of tension:

- Self-transcendence values and intrinsic goals of the Motivational story and the oppositional goal of self-protection activated in organisational contexts of job insecurity (5.4.1)
- Incongruence between the individual's values and goals and those of the organisation, setting up oppositional dynamics (5.5.1, 5.5.2)
- Situation of both changing and being changed by the organisation (5.6.4)

- Thwarted or undermined competency, relatedness, or autonomy need satisfaction (5.4.1 feedback, 5.5.3 support, 5.7.1 powerless, 5.9.2 frustration)
- Conflicts between competency, autonomy and relatedness needs (5.5.3, 5.5.4, 5.6.3)
- Psychological threat coping strategies thwarting or impeding needs satisfaction (5.9.2)
- Ambivalence about the individual's relationship with the organisation, or with their own or the organisation's environmental performance (5.5.1, 5.9.3)
- Suppression of 'deep green' identity (5.6.3)
- Suppression of felt emotions about ecological crisis (5.7.1)
- Mind-body disconnect/emotion-reason duality (5.6.2, 5.7.2, 5.8.3)
- Introjected motivation for behaviours (5.8.3, 5.9.2, 5.10.2)
- Use of directed attention (5.8.1, 5.10.2)
- Use of self-focussed mode of self-awareness (5.8.1, 5.8.3)
- Sense of relentless pressure to keep going forward (5.9.1)
- Use of rational thought in nature connection (5.10.2)

Some of these could be considered primary sources of tension, for example incongruence with the organisation. Others such as identity suppression could be secondary because the tension arises out of a particular response to the primary tension. The suppression can create further tensions such as conflicts between needs satisfaction, which would be a tertiary source. In this way layers of sources of tension are created that interact with each other in complex ways.

### **6.2.2 Types of coping strategies**

I identified a wide range of coping strategies for dealing with tensions in experience, as demonstrated in Fig 5.4 (see 5.9.3). I now present a summary in the table below (Fig 6.2) of strategies for which I found clear evidence of use. For the strategies that are listed in the literature but for which I found no evidence, such as denial, an explanation for their absence is offered in 5.9.3.

Fig 6.2 List of coping strategies in use

	COPING STRATEGY	SPECIFIC RESPONSE
Adaptive	Engagement with facts	Seeking information, acceptance/realism
	Collaborative problem solving	Working with others, seeking external partner support
	Compassion	Self-transcendence values orientation
	Nature connection	Going outside, being in natural habitats
	Physical activity/exercise	Walking, running, cycling
	Talking to like-minded people	Getting psychological support from work colleagues, friends, environmental networks
	Taking a wider perspective	Consider bigger picture
	Self-talk	Talk to self as if separate person
	Mindfulness	Attentional training, self-regulation, engage with emotion
Adaptive or maladaptive	Avoiding thinking or feeling	Suppressing thoughts/emotions, compartmentalise, reduce intensity, intellectualise, selective attention, distancing, depersonalising, generalise, numbing, escapism, disembodiment, pleasure-seeking, willed optimism
	Reducing salience of environmental identity	Suppression, projection
	Motivational story	Construct and maintain a story
	Pragmatic compromise	Adjust to meet organisation
Maladaptive	Self-enhancement	Self-protection, survivalism
	Diversionsary or displacement activity	Minor behaviour change
	Shifting or denial of responsibility	Bargaining, diffusion of responsibility

There is a combination of intrapsychic (thoughts, emotions) and behaviours in the coping responses (American Psychological Association 2009). Each participant used multiple strategies. I found the distinction between conscious/intentional and unconscious/unintentional was not always clear. Also, it was mostly not possible to make clear distinctions between threat responses to ecological crisis, and threat responses activated by the experience of working to address ecological crisis in organisational contexts that also provided threats to needs satisfaction: the threat responses were entangled.

### 6.2.3 Outcomes of coping strategies

Having identified coping responses and the stimuli that trigger them, I now consider the ecologically adaptive and maladaptive consequences or implications of these strategies, in

the context of RQs 2 and 3. In the table above (Fig. 6.2) I have indicated which strategies are adaptive, maladaptive or both. Adaptive coping strategies are those that (i) that stimulate responses appropriate and proportional to the reality of ecological crisis by strengthening pro-environmental values and identities. We can think of these as direct outcomes. And (ii) ease stress for the individual, help satisfy their core psychological needs and maintain/enhance vitality, which supports their psychological wellbeing and effectiveness in doing their work. These can be understood as indirect outcomes. Maladaptive strategies are those that work against these direct or indirect outcomes in some way. I also consider the outcomes for organisation: what do the coping strategies allow the organisation to do/not do with regards to responding adaptively to ecological crisis?

### **Adaptive strategies**

- Engagement with facts and collaborative problem solving

Self-regulation requires attending to feedback (Shapiro & Schwartz 1999). Being knowledgeable about the causes of ecological crisis and the impacts of changes in natural systems (5.7.1) is critical for making informed decisions (IPCC 2014; Whiteman & Cooper 2011) as it helps people adjust to the reality of the situation (Crompton & Kasser 2009). It may also ease anxiety of the unknown (Crompton & Kasser 2009). As ecological crisis is complex and happening on ecosystem and planetary scales, it demands a collective and collaborative response. Also, a shared sense of purpose can ease the 'burden of knowing' (Crompton & Kasser 2009). An organisation with knowledgeable employees will find it harder to avoid confronting the reality of the situation. Organisations that are ecologically embedded and informed are more likely to pursue pro-environmental outcomes (Shrivastava & Kennelly 2013). Working with external environmental sector partners is adaptive for the organisation if it heeds their pro-environmental advice.

- Self-transcendence values orientation

The participants are motivated to do their jobs by pro-environmental values and goals, as illustrated in their motivational stories (5.4.1). These values and goals are associated with pro-environmental behaviour (Schultz et al 2005; Bardi & Schwartz 2003; Brown & Kasser 2005; Sheldon & Kasser 2011). Organisations with employees with this orientation are more likely to take environmental concerns seriously (Spanjol, Tam & Tam 2015; Whiteman & Cooper 2000).

- Physical activity/exercise, taking a wider perspective, self-talk, talking to like-minded people, mindfulness

These strategies can help regulate stress and negative emotions, restore vitality, and support psychological wellbeing. Employees that are healthy and vital have greater capacity to cope with stress (Weinstein & Ryan 2011). Emotional support from others helps prevent burnout (Moser 2007). The outcome for organisations is adaptive if these strategies support employees to be resilient and effective in influencing pro-environmental change. Getting support from like-minded external partners was a critical strategy for three of the participants (5.5.3), helping to satisfy competency and relatedness needs that their relationship of incongruence with the organisation would otherwise leave deficient. This support could strengthen the participant's pro-environmental values, and support enactment because these values are affirmed by the partners who share them.

- Nature connection

Being in natural places and connecting with nature brings restorative benefits to the participants (5.10.1; Frumkin 2012; Ryan et al 2010), with outcomes for the organisation as detailed above. As one participant noted, it is a reminder of why she is involved in environmental sustainability work, and thus serves to strengthen her pro-environmental

values and sense of self as part of nature (Schultz 2000; WWF 2011; Weinstein et al 2009; Whiteman & Cooper 2000) that are otherwise undermined by the organisation context (5.10.1). It is adaptive for the organisation if these values are enacted in decision-making.

### **Maladaptive**

- Minor behaviour change, and shifting/denial of responsibility

These strategies are ecologically maladaptive because they do not support significant action or radical change on individual or organisational levels (Crompton & Kasser 2009).

### **Adaptive or maladaptive**

- Motivational story and self-protection values/goals

The participants' stories serve to enhance their autonomy but my findings show that relatedness and competency could be impeded by lack of feedback about their work (5.4.1), so on a personal level there can be mixed outcomes. Focussing on positive aspects of the work and being optimistic was an important feature of the story (5.4.2). This could be ecologically adaptive or maladaptive depending on whether the optimism is realistic or not. If it denies the reality of the speed and scale of the transformations needed, and instead allows changes in organisational practices to be minor, then it is maladaptive (Foster 2015). In this situation the outcome for the organisation is that it is able to carry on with business more or less as usual. The story expresses self-transcendence values and intrinsic goals, so these are activated and strengthened with each telling of the story. However, conflict can arise between the values of the story and self-protection values/goals activated in response to organisational contexts of job insecurity (5.4.1). The literature on values and goals suggests self-protection values and goals would be ecologically maladaptive if they become salient because of the way self-enhancement values and extrinsic goals are organised in the mind in an oppositional relationship to self-transcendence values and intrinsic goals (Grouzet

et al 2005; Schwartz 1992; 2012), and because self-enhancement values are associated with lack of concern for the wellbeing of the natural world (Kasser et al 2004; Schultz et al 2005).

- Pragmatic compromise

Adaptation and compromise were adopted in order to achieve results in organisational contexts of incongruence of values and goals (5.5.4). But I found that although compromise may help satisfy competency and to some extent autonomy needs, it may also have a negative impact on inner coherence and only partially satisfy relatedness, thus creating conflicts between needs. As illustrated with one participant, there is a risk of co-option by the organisation for change agents who compromise to satisfy relatedness and competency needs. This would make it an ecologically maladaptive coping strategy: as with unrealistic optimism, it allows the organisation to avoid transformational changes, whilst at the same time mollifying guilt (Hamilton & Kasser 2009).

- Emotional avoidance

Negative emotions about ecological crisis were suppressed because they were perceived to be a threat to competency (5.7.1), in one case the organisational context was not perceived as a safe container for expressing these emotions (5.7.2). There was evidence of effort being used to suppress the emotions, and this has likely implications for vitality and effectiveness (Rogelberg 2006).

Avoidance of feeling negative emotions through strategies such as suppression tends to be viewed in the literature as both personally and ecologically maladaptive coping strategy (e.g. Brown & Cordon 2009; Macy 1993; Crompton & Kasser 2009; Norgaard 2006a; Lertzman 2015; see 2.5.4). However, these strategies could have an ultimately ecologically adaptive dimension if they create temporary mental space to retreat from the intensity of the

experience of working in environmental sustainability, especially in an organisational context of incongruence. This retreat may be therapeutic in allowing for healing and restoration of vitality so that engagement with the work is possible without suffering burnout or illness caused by prolonged stress. Linear ways of conceptualising experience – LIFE IS JOURNEY/PATH and PROGRESS IS FORWARD MOVEMENT – could be contributing to a relentless sense of pressure and tension. But key to these avoidance strategies being ecologically adaptive is if they are temporary, and at some point the emotion would need to be engaged with because of the role that emotion plays in directing attention and guiding behaviour (Stangor 2010; Deci et al 2015). Barrett & Gross (2001, cited in Brown & Cordon 2009) argue that effective emotion regulation requires being able to accurately track ongoing emotional states and know when and how to intervene to alter those states as needed (p70). Mindful awareness of mind-body feedback signals could help with judging when to retreat and how long to stay there (Deci et al 2015). When mindful, retreat is an intentional conscious choice not an automatic unconscious defence reaction. I see the retreat and engage movements that mindful emotional avoidance coping strategies could enable as cyclical rather than linear, following natural dynamic cycles of life and death, growth and decay. It becomes maladaptive if a person were to get stuck in cycles of retreat or engage.

Fig 6.3 Engage-retreat cycles of movement



Avoidance strategies also become maladaptive if they end up thwarting need satisfaction or depleting the participant's inner resources for finding or constructing the necessary supports for experiencing competency, autonomy and relatedness (Deci & Ryan 2000). These responses can become harmfully self-perpetuating, as I showed in my analysis. For example, alcohol use affects vitality and cognitive functioning, impeding competency, thus creating

further tension and stress which is temporarily eased by drinking alcohol (5.9.2). Over the longer term, dissonance between felt and expressed emotion may affect sense of inner coherence (Grandey & Gabriel 2015), and is likely to induce stress (Rogelberg 2006). Furthermore, suppression of emotion and mind-body dissociation over time undermines mind-body integration and could reinforce reason-emotion dualism. Both of these outcomes by definition do not support a deep sense of connection with inner and outer nature (Kahn & Hasbach 2012; Hasbach 2012; Totton 2011). A sense of self as part of and connected with nature is thought to motivate enduring pro-environmental behaviour (Crompton & Kasser 2009; Clayton 2003; WWF 2011; Totton 2011; Whiteman & Cooper 2000; Davis 1998).

Outcomes for the organisation of emotional avoidance strategies depend on whether they are temporary retreats or not. If not, then the organisation doesn't have to confront, accept, and engage with the difficult emotions associated with facing up to the reality of ecological crisis. Wright, Nyberg & Grant (2012) state that the emotionology that develops within an organisation has an influence on its strategic response to an environmental issue.

Suppression of emotion at an organisational level is likely to work against development of adaptive practices.

- Reducing salience of 'deep green' identity

'Deep green' was a term used by three participants without prompting. Suppressing a 'deep green' identity is a strategy used in service of meeting competency and relatedness needs (5.6.1). But my results show that the strategy does not necessarily work completely and is likely to leave some deficiency in satisfaction of relatedness needs, and may also affect inner coherence and thwart autonomy, creating conflict between needs satisfaction. Suppression also takes effort, which has implications for vitality.

There is crossover between a 'deep green' identity and an environmental and ecological identity, as defined in this thesis (see 2.4.3 for literature): 'deep green' refers to an ecocentric type of ecological ethic (Curry 2011) that regards humans as part of nature and recognises the intrinsic value of the non-human natural world. The literature suggests that suppression of a 'deep green' identity is unlikely in the long term to motivate radical pro-environmental responses: "To find nature important enough to justify the changes necessary to preserve and restore it, first we must experience it as intrinsically valuable or sacred" (Bender 2003 p348, cited in Curry 2011 p59). Self-identity guides behaviour (Gatersleben et al 2012; van der Werff 2013). Individuals with a stronger and more salient environmental/ecological identity that is rooted in a sense of place are likely to have stronger commitment to sustainable practices (Whiteman & Cooper 2000). From a Self-Determination Theory perspective, if an identity has been suppressed it is not integrated with other aspects of the self, and so is less likely to be experienced as coherent and autonomous, making associated behaviours less likely to be performed effectively and to persist over time (Osbaldiston & Sheldon 2003; Deci & Ryan 2000). Also, if the suppressed identity is associated with emotion, as was the case with two participants, then the strategy of suppression reinforces reason-emotion dualism, which works against strengthening ecological identity as explained above.

My results show there are adaptive alternatives to suppression of 'deep green' identity in organisational contexts of incongruence: 'out-sourcing' the risky 'deep green' identity to like-minded external partners in an extended cognition (5.6.3). This is a creative strategy for coping with threat to autonomy from identity suppression, and if the organisation is receptive to being influenced by the external partner then it is also an ecologically adaptive strategy.

Reduced saliency of 'deep green' identity at the individual level allows the organisation to avoid ways of conceptualising human relationship with nature that might lead to uncomfortable realisations about current practices. Ultimately, the maladaptive implication of this and the other coping strategies discussed above is that they help to relieve the organisation of the need to act and make radical pro-environmental changes.

#### **6.2.4 Factors affecting the efficacy of adaptive strategies**

My analysis shows that the participants experienced tensions in their experience and that they responded to these tensions with a variety of coping strategies that can have adaptive and/or maladaptive outcomes. I found there are various factors that affect the efficacy of these strategies as ecologically adaptive coping mechanisms. In section 6.2.3 above several factors have already been mentioned:

- Whether the motivational story involves realistic or unrealistic optimism
- Whether the compromises made are a reflection of co-option of the individual by the organisation
- Whether emotional avoidance strategies are temporary and used mindfully
- Whether experience is conceptualised in a linear or nonlinear way
- Whether reduced salience in 'deep green' identity is linked with suppression or out-sourcing of the identity in an extended cognition

In addition to these, the analysis in chapter 5 identified four other factors, which I now discuss.

- Type of awareness and attention

In the literature, mindfulness is regarded as a coping strategy because it can support healthy and autonomous self-regulation of behaviour (Deci et al 2015; Brown & Ryan 2003; Brown, Ryan & Creswell 2007a; 2007b). Attending to cues in local ecosystems supports ecological sensemaking (Whiteman & Cooper 2011). However, I found in general the level of mindful awareness reported by participants to be fairly low (5.8.1). Furthermore, in some accounts

there was a lot of effort being expressed in attending moment-by-moment to all the internal and external aspects of experience. These participants may be using effortful directed attention, rather than the minimal effort of involuntary attention. One of the participants mentions 'trying to be reflective' (5.8.1). This is indicative of a self-focussed reflexive mode of consciousness, rather than a mindful mode. According to the literature, this mode involves controlled self-regulation and this, like directed attention, can be energy depleting (Brown, Ryan & Creswell 2007b; Deci et al 2015). In contrast with this, is an account that illustrates how awareness can also be a much easier experience: less effortful and self-focussed, drawing on involuntary attention (5.8.1). Forms of attention and awareness that are less effortful and feel easier are likely to be more effective as a coping strategy, and using them eases brain fatigue caused by overworking directed attention (Kaplan & Kaplan 1989). Furthermore, as self-focussed awareness operates within (rather than upon) the thoughts of the ego-self, it is not fostering integration in the way mindful awareness could (Brown & Ryan 2003; Deci et al 2015). Combined with introjected regulation (where the person both wants to and doesn't want to enact the behaviour) it could be providing the individual with more material to be self-critical about, in a self-perpetuating feedback loop with negative consequences for wellbeing (Deci & Ryan 2000). There were suggestions of this in the account of one participant (5.8.3, 5.9.2). With regards to the coping strategy of connecting with nature, rational analysis involving directed attention was detracting from the quality of the felt experience (5.10.2) and this has implications for the revitalising potential of the experience (Kaplan & Kaplan 1989).

- Type of motivation

Two other coping strategies for which there is evidence of factors influencing effectiveness are 'connecting with nature by being in natural places', and 'physical activity'. Often these were combined, for example by running, cycling or walking in natural places. Whether these

activities were motivated by controlled or autonomous regulation was a factor in how the participants felt about doing them. With introjection, there was evidence of some conflict in performing the activity (5.8.3, 5.9.2, 5.10.2), whereas with autonomous motivation, the activity was described without tensions in experience (see 5.8.2). According to SDT, introjected behaviours are less likely to happen and to endure over time (Osbaldiston & Sheldon 2003).

- Visual cues of nature

My findings show the quality of connectedness with nature can be inconsistent: it tends to be stronger when mind and body are present outdoors in a natural habitat, and weaker when the mind is distracted or when the body is in an urban environment or indoors (5.10.2). As office design tends to lack the visual cues of nature (living plants and animals), participants reported 'forgetting' about nature in the workplace, which has implications for strength and salience of environmental/ecological identity at work. Depending on being in a natural place for sense of connectedness with nature limits the possibilities of sense of connectedness as a coping strategy.

I find there is a paradox (and tragic irony) in depending on natural places that are being destroyed for coping with the stress of working to prevent further destruction of the natural world. Loss and destruction of natural places triggers difficult emotions that are in part managed by the solace of being in natural places; and the relief gained helps the participants be resilient in their work to influence pro-environmental practices. But the powerful forces of development and the inevitable decline of natural places referred to by two participants (5.4.3) implies that natural places will continue to be lost, triggering more difficult emotions. And in its decline there will be fewer of these natural places to be able to go to and be in, to manage emotions and experience the healing and renewal that supports them be effective

in environmental sustainability work. Furthermore, the few natural places that are conserved attract higher numbers of visitors and consequently suffer greater damage such as soil erosion and pollution. This paradox in depending for wellbeing on natural places that are being lost, I suggest, points to an issue in the way nature is being conceptualised: as a thing that is 'out there'. Cognitive frames are discussed next.

- Cognitive frames

Language used by the participants may undermine the strength or salience of ecological identity, or inhibit ecologically adaptive behaviour, in the following ways:

- a) Whilst a transpersonal state of oneness may be experienced in natural habitats, nature was conceptualised as external to self, as something 'out there' (5.11.1). However, a sense of self *as* nature, the reintegration of the inner 'wild' parts of the self, is as integral to ecological identity as a sense of self as part of the outer natural world (Kahn & Hasbach 2012; Hasbach 2012; Totton 2011). This frame could account for the dependence on visual cues and on being in a natural place for sense of connectedness, as just discussed above.
- b) Language used to talk about nonhuman nature can invite intimacy with particular living beings and habitats and a close sensory relationship, or invite distance and separation, rendering particularity and heterogeneity absent. (5.11.2). This has implications for quality of sense of connectedness (Stibbe 2024; Macfarlane 2015; Brown & Toadvine 2003).
- c) In conceptualising nature as a place, the Container schema is in use (5.11.3). Containers are objects with boundaries that separate them from other objects (Johnson 1987). The conceptualisation of NATURE IS PLACE/OBJECT sets up the possibility for separation, which is precisely what the participants seek to overcome by 'being in nature'. The object frame also allows for the target to be manipulated and exploited for human ends (Larson 2011; Goatly 2007).
- d) Conceptualising the nonhuman natural world as an economic resource (5.11.4) and using a predominantly economic frame when talking about environmental strategy and practice (5.11.9) is likely to inhibit appreciation of the intrinsic value of the

nonhuman natural world (Lakoff 2010; Crompton & Kasser 2009; Blackmore & Holmes 2013; Stibbe 2015; Trampe 2001).

- e) The entailment of using mechanistic metaphors (5.11.7) to describe aspects of human experience or nonhuman nature is that humans and nonhuman nature can be understood and controlled like a machine. With such a frame, the mystery and complexity of natural phenomena is downplayed and the myth of human superiority and ability to control nature through technoscience is promoted (Goatly 2007; Larson 2011). The belief that humans can technofix their way out of climate crisis arises out of this conceptualisation (Stibbe 2015).
- f) Cultivating an ecological identity that centres on a relationship of care with a particular place and its inhabitants requires resources of time and attention and a quality of patience (5.11.5). It is a relationship of intimacy and close observation (5.11.6). A social context that primes conceptualisations of SIZE IS IMPORTANCE, TIME IS MONEY and possibly also ATTENTION IS RESOURCE is less likely to activate and strengthen this kind of relationship (Whiteman & Cooper 2000, 2011; Taylor 2014; Swim, Clayton & Howard 2011; Lakoff & Johnson 1980). Nor is it likely to be conducive to a state of mindfulness and an approach to inner experience that supports integration of parts of the self that have been rejected or denied (Kabat-Zinn 1990; Santorelli 2000; Nhat Hanh 2012).

## Summary

To summarise, the following factors are likely to support more effective coping strategies in terms of renewing vitality and promoting psychological wellbeing and healthy self-regulation, and/or strengthening environmental values and identity and stimulating ecologically adaptive action.

- Realistic optimism in the Motivational story
- Resisting co-option by the organisation when compromising to achieve competency
- Avoidance of negative emotions in a temporary and mindful retreat to avoid burnout
- Out-sourcing (rather than suppressing) the threatened 'deep green' identity
- Mindful modes of self-awareness
- Autonomous motivation
- Involuntary attention

- Conceptualising experience as nonlinear
- Visual cues of nature
- Cognitive frames about nature that encourage intimate connection and integration

### 6.2.5 Influence of organisational context

The participants' accounts are situated in their experience of interacting with their organisation, and the influence of the organisational context on their experience (as they perceive it) showed up in a number of ways in my analysis:

- a) Undermining or lack of affirmation of pro-environmental values, ecological identity and intrinsic valuing of nature (5.10.1, 5.11.9)
- b) Incongruence of pro-environmental values between five out of six participants and their organisation (5.5.1) and with particular colleagues triggering coping responses such as compromise (5.5.3, 5.6.3, 5.7.2)
- c) Job insecurity stimulating activation of self-protection values (5.4.1)
- d) Reinforcing reason-emotion dualism and unsupportive of expression of difficult emotions about ecological crisis (5.7.2)
- e) Absence of visual cues of nature to help keep ecological identity salient (5.10.2)
- f) High pressure environments/fire-fighting culture not conducive to fostering mindfulness (5.8.3)
- g) Pressure to keep going onwards (5.9.1)
- h) Feedback can support or undermine competency and relatedness needs satisfaction, depending on whether it affirms the individual's contribution is recognised and valued by others, and whether information about goals and measures of success are sufficiently clear (5.4.1)
- i) General undermining of relatedness, competency and autonomy needs satisfaction (e.g. 5.4.1, 5.5.1, 5.5.3, 5.9.1, 5.9.2)

The literature explains that pro-environmental behaviour is facilitated when social contexts are designed (deliberately or otherwise) to nurture connectedness to nature, affirm environmental/ecological identity and universalism values, and encourage appreciation of nature's intrinsic value (e.g. Clayton & Opatow 2003), and when organisations are place-based or ecologically embedded (Guthey, Whiteman & Elmes 2014; Shrivastava & Kennelly

2013). In this list above, findings a) to f) suggest that the organisational contexts for most of the participants (the exception is the participant with a high fit between her values and those of the organisation – see 5.5.1), are not conducive to supporting congruent enactment of their pro-environmental values in their work to influence environmental policy, strategy and practice. Findings f) to h) refer to indirect impacts on wellbeing and effectiveness.

My analysis of organisational documents such as environmental policies and strategies and the audio recording of one strategy meeting (5.11.9) gives a sense of the kind of discourse to which the participants may be exposed in their organisations. The prevalence of the Economic frame was notable in both the organisational documents and the audio recording, and there was a paucity of frames likely to encourage appreciation of the intrinsic value of nature, or that affirms environmental/ecological identity. It was not within the scope of my study to investigate exactly how these frames influenced organisational practices, but the lack of concern for nature in its own right was evident in the recording of the meeting where the Economic frame dominated.

### **6.2.6 Influence of macro-context of cultural worldviews**

The participants and their organisations are immersed in the dominant cultural worldview of their countries, which manifests in the language used. The literature explains that exposure to and internalisation of cultural messages influences the strength and salience of values in individuals (Kasser et al 2004; Uzzell & Rätzl 2009; Flouri 1999; Alexander & Crompton 2011). The UK and Canada are both industrialised societies with dominant economic growth frames (Dryzek 1997; Lakoff & Johnson 1980; Dunlap 2008; Lakoff 2010), which show up in both the participants' accounts and in the organisational documents (5.11.4, 5.11.9).

Economic frames about nature privilege a perception of nature as a resource to be exploited in service of economic growth and material progress and inhibit alternative frames that

promote intrinsic valuing of other-than-human living beings and their habitats (Lakoff 2010; Crompton & Kasser 2009; Blackmore & Holmes 2013; Stibbe 2015; Trampe 2001).

Particular cognitive frames can impact on wellbeing because of the way that they encourage linear forward movement and discourage counter movements to achieve balance. These show up as the conceptual metaphors LIFE IS JOURNEY/PATH and PROGRESS IS FORWARD MOVEMENT (5.9.1). Furthermore, the linearity of these metaphors is at odds with the reality of natural cycles, and is likely to be contributing to treating the planet as if its resources and recovery capacity are infinite. Humans progress along a path without a final destination: it is a path without limits. Eventually this leads to severe overexploitation and disruption of natural systems, causing ecological crisis (Foster 2015).

Thirdly, some cognitive frames may impede cultivation of an ecological identity that centres on intimate relationship of care with a place and its inhabitants (Whiteman & Cooper 2000), as well as into relationship with parts of the self so they can be integrated in a mind-body whole. This takes time, attention and patience. Social contexts that prime people to be fast and busy (TIME IS MONEY conceptual metaphor: 5.11.4) and see more or bigger as better (SIZE IS IMPORTANCE conceptual metaphor: 5.11.5), or that prime other identities and goals such as consumerism and materialism are unlikely to be conducive (Taylor 2014; Swim, Clayton & Howard 2011; Lakoff & Johnson 1980). My study indicates that countering these external forces to connect deeply with nature takes mindful awareness and conscious intent and effort (5.10.1, 5.10.2).

### **6.2.7 The role of vitality**

A surprising insight emerging from my analysis is the role of vitality, both in terms of outcomes of coping strategies and as a factor affecting the efficacy of coping strategies. According to the literature, when vital, people experience a sense of enthusiasm and

aliveness, are more productive and cope with stress and challenges better, and report greater psychological wellbeing (Ryan et al 2010; Ryan & Deci 2008; Weinstein & Ryan 2011). Due to its significance in my findings I now provide a summary of the role of vitality in participant experience:

- There is a lot of effort being expressed in participants' accounts of influencing their organisations (5.5.2, 5.6.3, 5.7.1, 5.8.1, 5.9.1, 5.9.2). Effort requires energy, and this has implications for vitality
- Coping strategies can be directly vitalising or depleting. Alcohol use was experienced as depleting (5.9.2) whilst being outdoors and connecting with non-human nature was restorative (5.10.1)
- Suppression of identity and emotions takes effort (5.6.3, 5.7.1) and therefore uses energy. Expression of emotion is energy depleting when associated with thwarted competency and autonomy needs (5.7.1)
- Embodied awareness that is effortful is likely to be drawing on directed attention, and/or self-focussed mode of conscious processing (5.6.3)
- A sense of relentless internal and/or external pressure and tension to keep going on the journey forward has implications for vitality and psychological wellbeing (5.9.1)
- Satisfaction of competency needs is energising (5.9.2). Thwarted needs have a negative impact on vitality (5.9.2)
- There was a difference between introjected and autonomous motivations for the efficacy of physical activity as a revitalising coping strategy (5.8.2)

### **6.3 MODELLING INTERACTIONS BETWEEN KEY FACTORS**

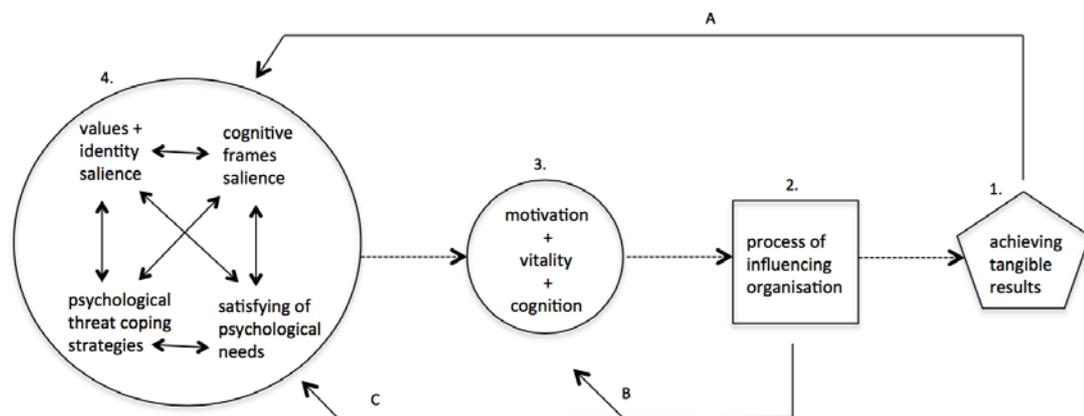
The diagrams presented here have been included to further illuminate the second part of RQ2: how key psychosocial factors interact as processes to influence the participants' cognition and behaviour. In these diagrams I model interactions between key features of participants' experience, based on findings derived from a synthesis of interpretations across cases. The evidence for the processes represented has already been provided in chapter 5. To avoid repetition of this in-depth narrative, in the explanatory text I refer the reader to the relevant sections of that analysis.

Diagrams are a systems thinking tool for abstracting and representing aspects of complex situations in simplified form and showing the interconnectedness between different parts. As explained in chapter 4 (see 4.3.1), my process of analysis and interpretation included constructing diagrams using an inductive process, both for single cases (stage 8) and across cases (stage 11). Diagramming as a process helped me with sense making and gaining clarification about feedback loops in the situation. As objects, the diagrams presented here are intended to help communicate complex information by showing that information visually. I end this section with a comparison of my diagrams and the information they contain to relevant literature.

#### 6.4.1 Overall structure of participant experience

I constructed this diagram to represent the overall structure of the participants' experience, as I interpreted it. It shows the inputs that participants bring and the outputs they desire in their work to influence organisational practices, as well as the feedback loops in between.

Fig. 6.4 Overview of interrelating processes in participant experience



1. Starting at the right of the diagram with the output or goal, I found the ultimate concern of the participants is to make a positive difference, to get tangible pro-environmental results (see 5.4.1 on motivational story). With the financial pressures that most public and third sector organisations are under, proving one's worth to the organisation by

delivering results could be critical in order to keep one's job, particularly for those in local authorities for whom environmental work is not a statutory service (see 5.4.1).

2. They sought to achieve these results through the process of influencing organisational policy, strategy and practice (see Fig 4.3 in 4.1.3 for information about work roles).
3. Motivation, vitality and cognition are psychological inputs that they bring and which affect their experience of influencing and interacting with the organisation (5.4.1, 5.9.1, 5.9.2).
4. Interrelating factors of values and identities, cognitive frames, strategies for coping with psychological threat, and the nature and extent to which basic psychological needs (competency, autonomy and relatedness) are satisfied, have implications for participants' motivation, vitality and cognition, which ultimately impacts on their effectiveness in achieving desired results. These interactions are the focus of the second model (Fig 6.5).

Arrow A: Achieving tangible results influences the factors contained in the large left-hand circle 4. For example, achieving results satisfies psychological needs, specifically competency (5.2.1).

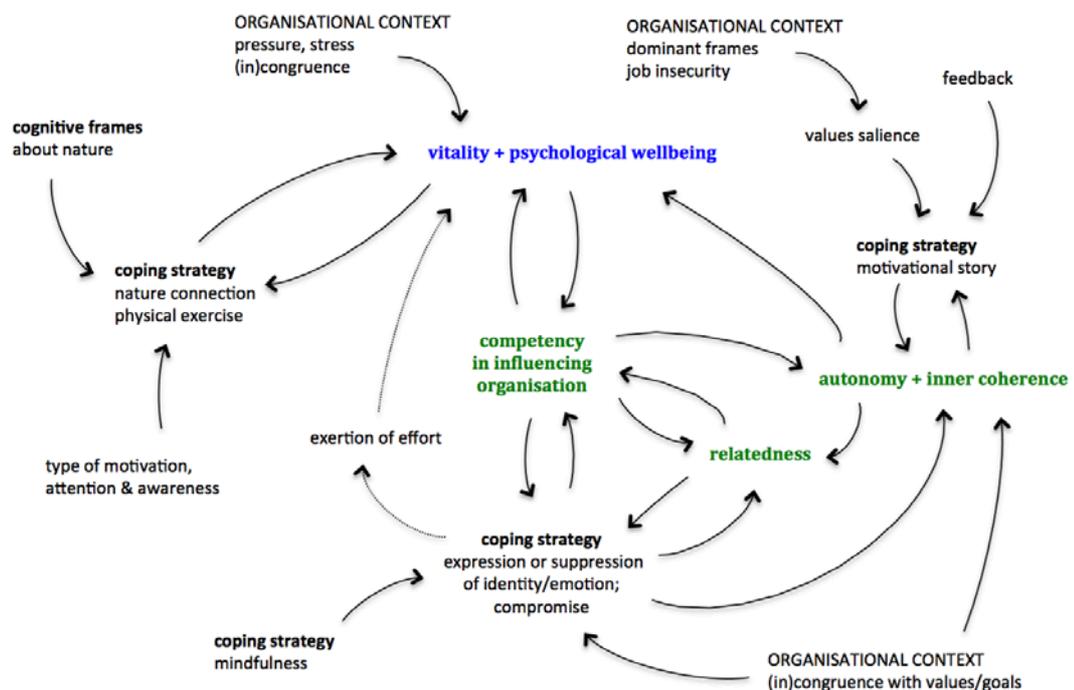
Arrows B + C: Participant's experiences of interacting with the organisation affect their motivation, vitality and cognition, and influence the factors in circle 4, creating feedback loops (see 5.5 for analysis of how their relationship with the organisation affects them, and 5.9.2 for examples of ways of negotiating tensions that involve negative self-reinforcing feedback loops).

#### **6.4.2 Dynamics of key psychosocial processes**

The following diagram (Fig 6.5) zooms in closer to the specific detail of psychosocial processes outlined in Fig. 6.4, although it is still a simplified representation of participant

experience. The items highlighted in green refer to basic psychological needs. Competency has been placed in the centre in recognition of the participants' primary concern to be effective in achieving results. Arrows between items mean 'leads to' or 'influences'. The feedback loops are self-reinforcing and can be supportive or undermining (commonly referred to as 'virtuous' or 'vicious' circles) depending on how the processes manifest. Some aspects of experience that have been omitted to make the diagram easier to engage with are included in the explanatory text.

Fig 6.5 Interrelating factors affecting competency



### Incongruence with organisation and associated coping strategies

As my analysis has shown, if there is incongruence between the organisation's values and goals and those of the individual, then this may lead the individual to adopt coping strategies. One strategy is to suppress their environmental or 'deep green' identity in order to fit in with colleagues (relatedness needs) and be seen as credible and professional (see 5.6.1). This positive perception is likely to make the individual more effective in influencing

their colleagues' decision-making, and consequently in achieving the results they want (competency needs). If this works, then the individual is likely to keep suppressing this identity, creating the larger self-reinforcing feedback loop linking the coping strategy with relatedness and competency as shown. However, suppression or reducing saliency of an identity may have consequences for sense of inner coherence (see 5.5.4 and 5.6.3 for examples) and also leave some deficiency in relatedness satisfaction (see 5.6.3). Support from like-minded external environmental partners can help satisfy relatedness needs that are not being met within the organisation. Out-sourcing the risky 'deep green' identity to these partners in an extended cognition is an alternative strategy to suppression (see 5.6.3). My findings suggest that where there is high congruence with the organisation, the need to suppress an identity is not a particular issue because authentic expression would not affect their relationship with colleagues or damage perceptions about their professionalism and credibility.

Individuals may also suppress their felt emotions about ecological crisis out of fear that if they fully engage with these emotions it will lead to dysfunction (see 5.7.1). Suppression is therefore in service of competency.

A third strategy to deal with tensions created by incongruence with the organisation is pragmatic compromise (see 5.5.4) in order to satisfy relatedness and competency, however it may have consequences for sense of inner coherence.

Mindfulness is one way to help ensure these coping strategies do not become maladaptive over time. Attending to inner and outer experience and noticing patterns of thought and behaviour supports healthy self-regulation (see 5.8.2), however this is not easy in stressful situations (see 5.8.1).

### **Motivational story**

The motivational story of 'doing good' helps create greater inner coherence and provides a rationale for the work the participants do within their organisations, justifying their experience and motivating them to keep doing what they are doing (5.5.1). I suggest it has a particularly important role to play if their experience is difficult due to organisational pressures and/or if there is incongruence between their values and goals and their organisation's. The story content is driven by self-transcendence values and intrinsic goals, but the literature on values (see 2.3.1) suggests that the salience of these values and goals is vulnerable to the effects of priming by the organisational culture (see 5.4.1 and 5.11.3 for evidence of oppositional values, namely self-protection and Economic frames about nature). In the absence of sufficient or appropriate feedback about achievement of goals, doubts and resentment may arise (see 5.4 introduction and 5.5.4), affecting competency and relatedness.

### **Vitality**

Suppressing identity and difficult emotions about ecological crisis takes conscious effort, with implications for vitality (see 5.6.3 and 5.7.1 for evidence). External organisational pressures, for example pressure to perform under stressful conditions can also be energy depleting (see 5.9.2).

I found that satisfying needs maintains or enhances vitality (see 2.3.3 for theory on vitality; 5.9.2 for evidence from study) whereas thwarted needs can impact negatively on vitality (see 5.7.1 and 5.9.2). If the participant feels powerless to do anything about ecological crisis then emotional engagement with it can be energy depleting because of the association with thwarted autonomy and competency (see 5.7.1 for example). My analysis shows that depletion of vitality has implications for effectiveness, and therefore for competency need

fulfilment (see 5.9.2). Inner resources that are being depleted need to be replenished, and participants cited various ways they nourish themselves. Common to all was going outside and being in natural places (see 5.10.1), some found benefit in physical exercise (often outdoors). The extent to which these activities are autonomously motivated influences their efficacy in maintaining or renewing vitality. The type of attention that is drawn upon, i.e. whether directed or involuntary, also has implications for revitalisation (see 5.8.4 for discussion of this). Strategies for maintaining and renewing vitality are important for being effective in achieving desired results, because as the literature states, depleted energy has implications for cognitive functioning and psychological wellbeing (see 2.3.3 for theory).

In my analysis, how the participant conceptualises their relationship with nature may have consequences for the quality of nature connectedness that is subjectively experienced (see 5.11). As indicated by the literature, this in turn has likely implications for strength of ecological identity and extent of restorative benefit that can be gained (see 2.4.3 for theory on ecological identity, and links between nature connection and wellbeing).

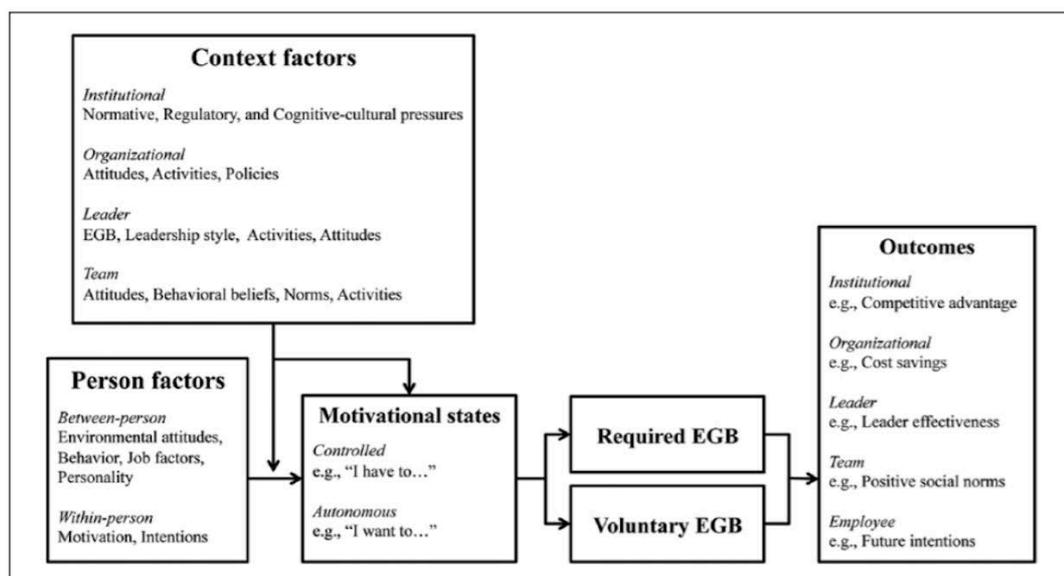
### **6.4.3 Discussion**

I now compare my diagrams to three conceptual models in the organisational studies literature. These are the most up to date models and extend and improve previous models with their integrative and multi-level approach. However, the models are theory-based and have not been empirically tested, whereas my diagrams are informed by theory but are empirically derived and based on phenomenological evidence. Also, the models are to do with individual behaviours in the workplace such as recycling, conserving resources, purchasing eco products etc. whereas the focus of my research is the way that individuals respond to ecological crisis by influencing policy, strategy and practice as part of their formal role in the organisation as sustainability managers and leaders. Nevertheless, these are the

models closest in relevance that I found. The models are by Norton et al (2015), Lülfs & Hahn (2014), and McDonald (2014). Norton et al present a model for employee green behaviours (EGB) based on person-environment interaction, job performance and motivational (Self-Determination Theory) theories derived from their review of EGB literature. Lülfs & Hahn present a model of determinants of sustainable behaviour in companies based on environmental psychology and corporate sustainability literature. McDonald presents a model of the antecedents of pro-environmental behaviour in the workplace based on a synthesis of general and workplace literature. I now discuss each in turn.

### Norton et al (2015) model

Fig. 6.6 Norton et al (2015) integrated multilevel model for employee green behaviours



The first thing to note about the Norton et al model is their definition of EGB which has mutually exclusive groups of behaviour, namely required and voluntary, neither of which quite fit the situation of my research participants. Required EGB refers to what they call 'green' (pro-environmental) behaviour performed within the context of employee's job duties, which includes adhering to policies and choosing or creating responsible methods of work and sustainable products and processes. They explain this concept of required EGB is

similar to task performance – behaviour required of employees by their employer that contributes directly or indirectly to core business. Voluntary EGB refers to green behaviour involving personal initiative that exceeds organisational expectations. This concept, the authors state, aligns closely with notions of contextual performance and organisational citizenship behaviour – behaviour that supports the organisational, social and psychological environment in which task performance takes place. It is this notion of discretionary green behaviour that they find has tended to dominate the literature to date. Neither of these definitions accommodate my research participants i.e. employees with formal roles within the organisation to influence environmental policy, strategy and practice. They are neither merely enacting behaviour that is required by the organisation nor doing performing green behaviours voluntarily as a personal initiative.

Secondly, Norton et al include outcomes of EGB, noting that theories of EGB have tended to neglect outcomes. Outcomes have been handled in my diagrams differently. In Fig. 6.4, the output shown is the desired goal of the individual, which is to achieve tangible pro-environmental results. Arrows A, B and C show where feedback loops occur. In the explanatory text I give an example of a feedback loop outcome: achieving results satisfies competency needs. In Fig 6.5 each arrow points to an outcome in a nonlinear set of interactions. I approach outcomes in a slightly more similar manner in section 6.2. However, here the outcomes are described in terms of their ecologically adaptive or maladaptive dimensions at individual and organisational levels. These manifest for the individual either directly by stimulating responses appropriate and proportional to the reality of ecological crisis by strengthening pro-environmental values and identities, or indirectly by supporting psychological wellbeing and effectiveness. With regards to outcomes for organisation, these are described in the context of what they mean for responding adaptively to ecological crisis. The example of institutional and organisational outcomes in Norton et al i.e. competitive

advantage and cost savings are in my analysis irrelevant. This shows the fundamental difference in focus between my research and the EGB literature, which is also highlighted by Ciorcirlan (2016). Ciorcirlan notes that research on environmental behaviours in organisations focus on the value of the behaviour to the organisation, whereas I am interested in the value of the behaviour to the natural world.

Thirdly, Norton et al include context factors, person factors and motivational states as antecedents, moderators and mediators of EGB. Context factors are included in recognition of the “well-established perspective that performance is the function of a person and their environment or context” (p106). This echoes the perspective taken in this study, and the inclusion of organisational context factors in Fig 6.5, and the process box (2) representing the process of influencing the organisation and the experience of interacting with it in Fig 6.4. The influence of organisational context is summarised in 6.2.5. The factors I identify could possibly fit under Norton et al’s institutional ‘cognitive-cultural pressures’, organisational ‘attitudes’, leader ‘attitudes’ or team ‘attitudes, beliefs, norms’.

A distinction is made with between-person factors and within-person factors. Between-person factors are more stable and vary between individuals, whereas within-person factors are less stable and vary within the individual. There is a contradiction in the paper about where motivation lies: in the model and on p107 it is classed as within-person whereas on p109 it is assigned to between-person. In any case, the within-person factors have a very narrow definition in this model compared to the factors I have identified: values and identity salience, needs, vitality, mind-body connection, cognitive frames, coping strategies.

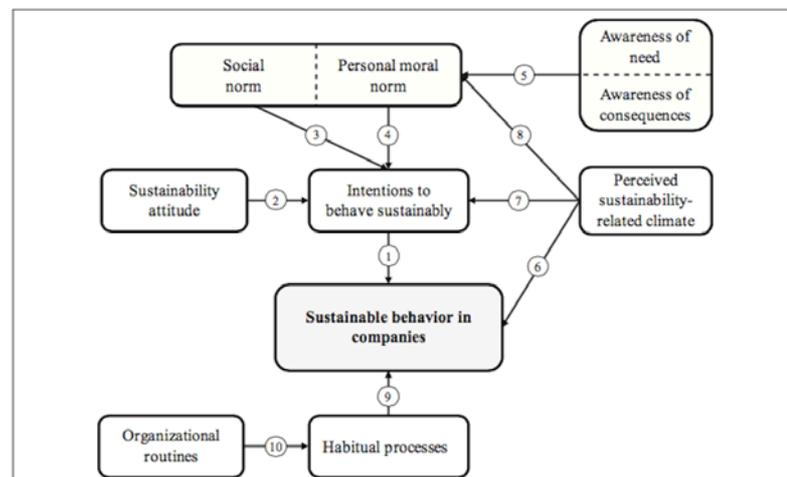
The inclusion of motivational states informed by SDT is interesting, as I have not come across that before in EGB related literature. However, Norton et al only take type of motivation

from SDT and not the theory on needs, intrinsic/extrinsic goals or mindfulness. They posit that required EGB is motivated by controlled regulation and voluntary EGB by autonomous regulation. I have shown with my in-depth analysis in chapter 5 and the discussion of insights in 6.2 that it is much more complex than that, and that lived experience involves a dynamic mix of regulatory processes. Even people oriented to pro-environmental values may not be fully autonomously motivated in all their pro-environmental behaviours.

Lastly, whereas my models are informed by theory but are empirically based, the Norton et al model is theory based and is developed from their review of EGB literature, which they state uses Azjen’s theory of planned behaviour (TPB) as the most prominent framework for explaining environmental behaviour. As they say, a central tenet of TPB is the relationship between attitudes and behaviour, and this particular influence in the literature is reflected in their model, which includes ‘attitudes’ at three levels of context factors and as a between-person factor. The dominance of TPB in the literature likely accounts for the relatively thin definition of within-person factors in their model – they report finding a lack of research at the within-person level.

### Lülfes & Hahn (2014) model

Fig. 6.7 Determinants of sustainable behaviour in companies (Lülfes & Hahn 2014)



This model draws on environmental psychology research that constitutes a different body of literature to the psychology literature I have drawn upon and reviewed in chapter 2<sup>23</sup>, and integrates it with literature on corporate sustainability. Their aim is to contribute to understanding of sustainable behaviour in companies.

Lülf's & Hahn's model is coming from a fundamentally different perspective to mine: the authors state they wish to provide a "framework for corporate interventions to enforce individual sustainable behaviour fostering corporate sustainability" (p43) whereas I am modelling processes involved in the experience of individuals working to influence pro-environmental organisational practices. Like Norton et al they have an organisational focus. Their choice of the term 'enforce' is interesting as it assumes that the organisation truly wants to improve its environmental performance and believes that employees would not engage in sustainable behaviour willingly or voluntarily. This sounds like the required EGB of Norton et al's model. Yet they also claim their paper is about voluntary sustainable behaviour, so this framing is contradictory. My analysis has shown that for most of my participants, their pro-environmental values and goals exceeded the organisation's - in this respect it is similar to Norton et al's voluntary EGB. Also, Lülf's & Hahn see the factors as 'determinants' whereas I am less concerned about establishing definitive causal relationships and more focused on discerning influences.

The authors acknowledge the significant presence of the theory of planned behaviour in the environmental psychology literature, which is reflected in their model with the inclusion of 'intention' and 'attitude'. However, they address its shortcomings by also including norms (which for them includes values), habits and organisational routines. Nevertheless, it

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<sup>23</sup> I have used literature from ecopsychology, psychoanalytically informed climate psychology, transpersonal psychology and social psychology. Lülf's & Hahn's list of exemplary research (p51) contains none of the same authors.

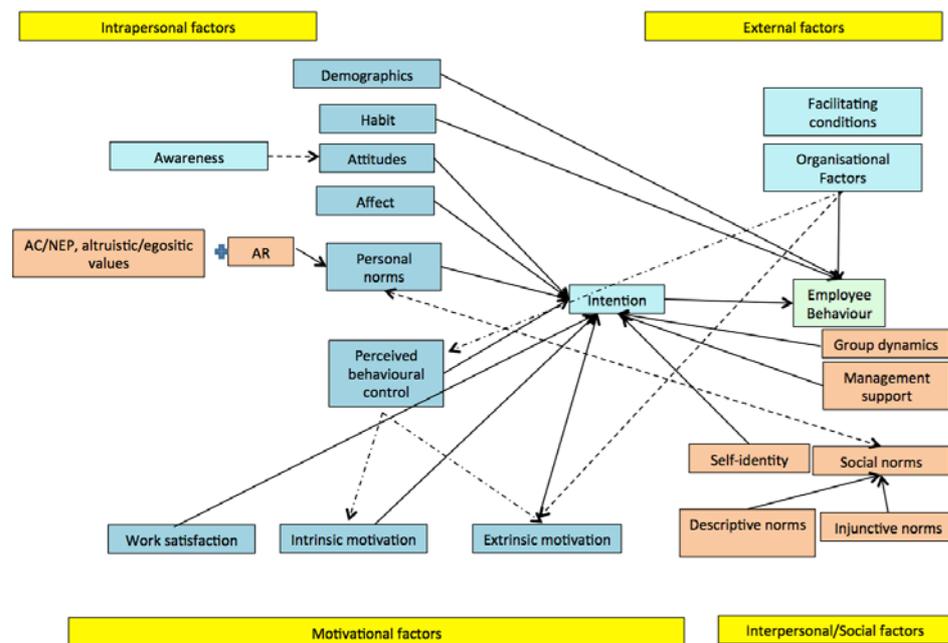
contains fewer factors than my models. On the other hand, I do not study organisational routines.

For Lülfs & Hahn, personal norms are internalised social norms. This is in partial accord with the approach I have taken that recognises that an individual's values and identities are influenced by social contexts. As with Fig 6.4, norms (or values) influence intentions (or motivation). They show the influence of the organisational climate on the individual in terms of whether the employee perceives it as fostering sustainability. This relates to my analysis of the organisational context supporting or undermining enactment of pro-environmental values and ecological identity, which in Fig. 6.5 is represented by the term 'dominant frames', 'job insecurity', and values and goals (in)congruence. The emphasis on and importance of employee *perception* of climate aligns with the approach I have taken in this study of investigating from the perspective of the individual's experience, but it also differs from it as I have used the critical-hermeneutic dimension of Interpretative Phenomenological Analysis to generate interpretations additional to descriptive self-reports. This allows for analysis of psychosocial processes of which the individual may be unaware and thus unable to articulate directly. Lülfs & Hahn account for the influence of factors outside of awareness with the inclusion of 'habitual processes', in recognition that "motivational factors such as attitudes and intentions have only limited predictive power" (p54). However, they regard these habits as 'molded' by organisational routines and do not include the possibility for habits to be formed through other psychosocial processes such as psychological threat responses. Awareness of need and awareness of consequences are factors that relate in my analysis to acceptance of the facts of ecological crisis and recognition of the need for change, which drives my research participants' motivational stories.

Lastly, in their explanatory text they acknowledge emotion as a factor in terms of influencing attitude, although this is not represented in the diagram. Emotion is absent in Norton et al's model. The relative lack of research on emotional factors of pro-environmental behaviour has been acknowledged (Russell & Friedrich 2015; Kennedy, Whiteman & Williams 2015; Lo 2015).

### McDonald (2014) model

Fig 6.8 McDonald (2014) integrated framework of antecedents of pro-environmental behaviour in the workplace



The first point to make is that as with the other models, the ultimate interest is in developing understanding to support the organisation to change employee behaviour, in this case by informing the design of human resource strategies and policies (p296).

This model is more comprehensive than the two discussed above, synthesising a wider range of literatures and theories. However, although some aspects are shared, such as awareness of the problem, values, type of motivation, and perceived behavioural control (which relates

to autonomy), there are other factors in my analysis that are missing here: needs, vitality, mindfulness, cognitive frames and psychological threat coping strategies, as well as factors such as incongruence in pro-environmental values and goals between the individual and the organisation. Identity is included but there is no mention of environmental/ecological identity because the literature that McDonald synthesised does not consider that.

Management support is included but not for the reason it emerges as a factor in my analysis i.e. in relation to supporting or undermining needs satisfaction. Here, it is related to employee intention. Affect and emotion are included but only in a general sense and not in terms of emotion regulation as a coping strategy. This is rather odd given her review of stress and coping literature, specifically Lazarus & Folkman's work on emotion focused coping. McDonald suggests that changing the affect of employees is most commonly achieved through emotive messaging and emotional appeals. However, there is no discussion of what emotions are to be evoked, or what the implications may be of triggering difficult emotions about ecological crisis in the workplace as I have considered. With regards to organisational factors, this covers a range of variables, some of which are not within the scope of my study such as organisational structure, environmental management systems, environmental policies, department size and type. Organisational culture, commitment and context are left vague and undefined, so it is not possible to make a meaningful comparison with the situated findings in my analysis.

A final point to make is that McDonald's definition of 'psychosocial' is quite different to that used in this thesis: psychosocial determinants in her analysis means demographic variables such as education, gender, age and social class (p282). As I interpret it, the intrapersonal, interpersonal and motivational factors McDonald describes are all psychosocial factors.

## Concluding thoughts

The models I have discussed above are all derived from the existing literature on environmental behaviour in the workplace. They are not modelling the exact same processes as I am, nor do they adopt the same approach of taking the individual's perspective.

The theory of planned behaviour and related models have been critiqued for failing to take into account the complexity of influencing factors and for the assumption that humans are rational and make systematic use of the information available to them (e.g. Kolmuss & Agyeman 2002; Lorenzoni et al 2007). This means that much of the literature on environmental behaviour in the workplace is limited in its explanatory power, as Norton et al (2015) and Lülfs & Hahn (2014) found in their reviews. I would argue that my models and analysis are a more accurate representation of the complexity of lived experience. This is possible because unlike the self-report methods of much of the literature, I have used a methodology that enabled me to empirically investigate a wide range of underlying drivers that are understood to occur largely below the level of conscious awareness and rational thought (Vignoles 2011; Kahneman 2013; Breakwell 1986; Vignoles et al 2011; Lertzman 2015; Maio et al 2011; Thibodeau & Boroditsky 2011; Lakoff & Johnson 1980; Cramer 1998; Rogelberg 2006; Willig & Stainton-Rogers 2010), although these processes are not necessarily inaccessible to consciousness (Vignoles et al 2011).

Griffin (1995 p6) says, "Because the assumptions that belong to a culture are often invisible in their fullest dimensions and consequences, one must make them visible before discerning change. The very process of seeing the structure of thought *is* itself a crucial kind of change and genesis". This also applies at the individual level. Making visible the 'patterns of abuse' that are acting upon us enables us to do something about them (Martusewicz 2015). The models I have produced are potentially useful tools for individuals working to influence pro-environmental practices in organisations, by enriching their understanding of the feedback

loops that may be playing out. With this understanding they can design interventions to help renew vitality and enhance resilience, support authentic and effective action, and disrupt ecologically maladaptive responses. Unlike the models I have discussed, these models have not been constructed to help organisations change an individual's behaviour, but to help the individual to change the organisation.

## 7 CONCLUSION

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In this chapter I bring the thesis to a conclusion, offer final reflections on what the findings mean as a whole, their underlying value and significance, and their practical contributions; and discuss the key contributions to knowledge, explaining how the findings relate to the literature and how they enhance our understanding of the topic. Areas for future research are also proposed.

### 7.1 INTRODUCTION

This thesis has provided a detailed account of an innovative transdisciplinary study into lived experience, triggered by my interest in the perversely maladaptive dissonance between what we know about ecological crisis and what we are doing about it, particularly for those of us oriented to pro-environmental values.

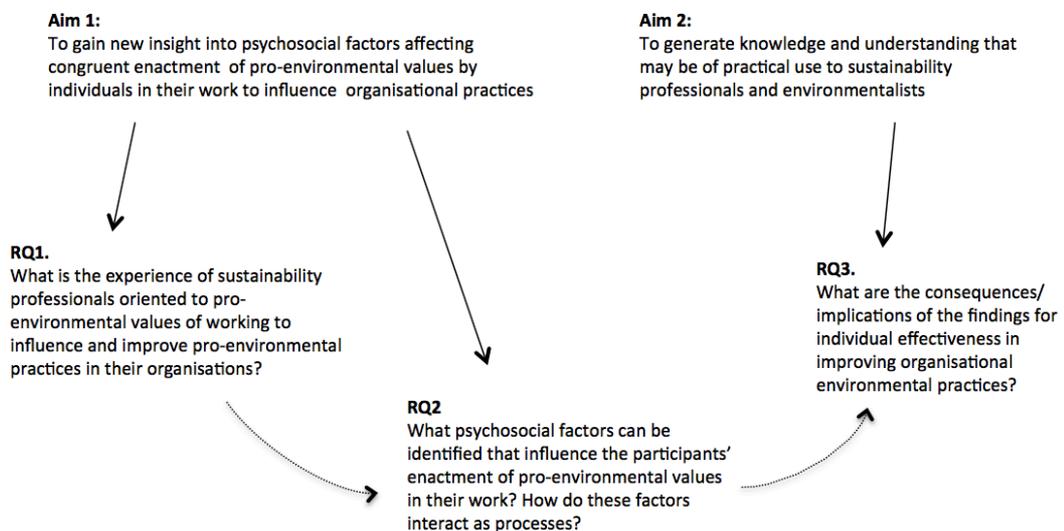
Studies show that the more strongly individuals subscribe to values beyond their own immediate self-interests (self-transcendent, prosocial, altruistic or biospheric values) the more likely they are to engage in pro-environmental behaviour (Steg & Vlek 2009). But whilst values have been found to be a strong predictor they are not the sole determinant of environmental behaviour (Whitmarsh & O'Neill 2010). Studies reveal that pro-environmental values are not consistently enacted all of the time or across all areas of our lives (e.g. Maio 2011; Maio et al 2001; see also Jenkins et al 2011), and individuals appear to be fairly inconsistent in their environmental behaviour (Steg & Vlek 2009). There are many psychosocial factors that can affect congruent enactment (Swim et al 2011; Deci et al 2015; Schultz 2005; Stern 2000; Clayton 2003). Discrepancy between values and behaviour has been referred to as the 'values-action gap' (Blake 1999; Maio 2011; Murtagh, Gatersleben &

Uzzell 2012) and ‘attitude-behaviour gap’ (Kollmuss & Agyeman 2002; Gifford 2011; Stoll-Kleeman et al 2001). Developing understanding of what these factors are and how they influence cognition and behaviour is critical for subverting our maladaptive responses to ecological crisis.

I have taken a systemic and integrative approach to investigating these factors, through a phenomenological enquiry into the lived experience of six sustainability managers and leaders in their work to influence pro-environmental practices in their organisation. This enquiry situates the individuals in the dynamics of their work settings and in the macro context of the dominant cultural worldview of the Western industrialised societies in which they and their organisations are embedded. This individual-in-organisation focus was chosen because as Stern (2000 p410) points out, “individuals may significantly affect the environment through... influencing the actions of organizations to which they belong”, and as I have demonstrated in 2.8.1 this is an area that has been under-researched.

The diagram below shows the relationship between research aims and questions.

Fig. 7.1 Research aims and questions



**RQ1** What is the experience of sustainability professionals oriented to pro-environmental values of working to influence and improve pro-environmental practices in their organisations?

To address this question I enquired into the research participants' lived experience of working to influence and improve pro-environmental practices in their organisation. I used Interpretative Phenomenological Analysis (IPA) as a framework for this enquiry, integrated with frame and metaphor analysis (a form of micro-discourse analysis). Underpinning the analysis and interpretation were theories of psychological threat coping strategies, Self-Determination Theory (SDT), environmental (ecological) identity, and cognitive frames. The main method was semi-structured interviews but other data sources were also used, namely participant diaries, organisational documents, and audio recordings of strategy meetings, as well as my own reflexive diary.

Micro-discourse analysis involves working with the data in a highly detailed and intense way, using largely abductive reasoning. Chapter 5 presents this in-depth analysis, structured by key themes in participant experience. These themes are: Motivational story, Relationship with organisation, Identity salience, Engagement with negative emotion, Mindfulness and embodied cognition, Tensions in experience, and Relationship with nature. I show how these themes manifest and highlight the areas of convergence and divergence between participants. To make it easier for the reader to follow the story of each participant through this in-depth and nuanced narrative, chapter 5 begins with pen portraits that familiarise the reader with the participants and give a sense of their complex experience as a whole.

My analysis and interpretation generated over 70 separate findings. At the end of each section, each finding is discussed in relation to the literature to which it relates. I specify how the findings are consistent with, different from or additional to existing knowledge, based on the literature I reviewed. In general, I find a high degree of consistency between my findings

and the literature, which gives support to my results. But what is evident from this discussion is that my findings do not merely replicate existing knowledge but offer significant additional insight, enriching our *understanding of psychosocial processes involved in the lived experience of sustainability managers and leaders*: my research shows how psychological threat coping responses, needs, vitality, identity and other intrapsychic processes can *interact with each other and with contextual factors to affect an individual's environmental cognition and behaviour*.

**RQ2** What are the psychosocial factors identified in participants' accounts that affect their enactment of pro-environmental values in their work? How do these factors interact as process to influence environmental cognition and behaviour?

In chapter 6, I use the information generated through the analysis process in chapter 5 to extract key insights about factors influencing enactment of pro-environmental values. I argue that all these factors relate, directly or indirectly, to psychological threat coping strategies: they are either sources of tension, coping strategies used to negotiate tensions, outcomes of coping strategies (which are ecologically adaptive or maladaptive), psychological dimensions influencing the efficacy of coping strategies, or contextual factors (organisational and macro-social) influencing one or other of these aspects. Some factors are a mix of the above. I discuss the factors with reference back to the analysis in chapter 5 and to the literature; the discussion demonstrates that the factors are processes that interact with each other in complex ways.

Chapter 6 concludes with presentation of two diagrams, derived from a synthesis of findings across the cases and constructed using an inductive process. These models offer an abstracted and simplified visual representation of interactions and feedback loops between key processes in participant experience that influence their effectiveness in influencing the organisation. I then compare my diagrams and the information they contain to relevant

models in recent organisational studies literature, and demonstrate how my diagrams take into account a wider range of underlying drivers, particularly those that occur largely below the level of the individual's conscious awareness such as psychological threat responses. For this reason, I argue that my diagrams provide a more accurate representation of the complexity of lived experience of sustainability managers and leaders and can therefore be of practical use, thus fulfilling Aim 2.

**RQ3** What are the consequences/implications of the findings for individual effectiveness in improving organisational environmental practices?

To address this research question, in chapter 6 I consider the ecologically adaptive and maladaptive consequences and implications of the coping strategies used by the participants. Adaptive coping strategies are those that (i) stimulate responses appropriate and proportional to the reality of ecological crisis by strengthening pro-environmental values and identities (direct outcomes); and (ii) ease stress for the individual, help satisfy their core psychological needs and maintain/enhance vitality, which supports their psychological wellbeing and effectiveness in doing their work (indirect outcomes). Maladaptive strategies are those that work against these direct or indirect outcomes in some way. The participants used a variety of coping strategies, including those that could have adaptive or maladaptive outcomes depending on how they are carried out: motivational story, pragmatic compromise, emotional avoidance, and suppressing 'deep green' identity. I also consider the outcomes for organisation: what do the coping strategies of the individual allow the organisation to do/not do with regards to responding adaptively to ecological crisis? This enquiry and the conclusions I draw from it are informed by my ecological philosophy, which is articulated in the Introduction chapter of this thesis (see 1.1.2).

As mentioned above, the models presented in chapter 5 also serve to address Aim 2.

Modelling dynamic processes and showing where there are feeding loops can be of practical use because it enables the user to identify points of intervention to alter the dynamics in their situation. I explore this contribution of the research in more depth below.

## 7.2 REFLECTIONS

In chapter 4 I reflected on the research process and my experience of implementing the methodology, from recruitment and selection of participants, to data generation, and data analysis and interpretation. In this conclusion chapter I offer reflections on what the findings mean as a whole, their underlying value and significance, and their practical contributions.

I began this project with curiosity and hope. Curiosity about incongruence between the pro-environmental values that a person holds and how they act in the world, specifically in the context of influencing organisational practices. And hope that something would be discovered through the research that would enhance our understanding of this topic, and help inform our approach to dealing with it so that we can improve our response to ecological crisis.

With transdisciplinary research inspired by systems thinking there are countless different valid approaches that could be taken. I have chosen to approach it in the way described and explained in this thesis. I hope that the reader can 'bracket'<sup>24</sup> their own preferences and engage with my research on its own terms.

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<sup>24</sup> In phenomenology, 'bracketing' is the putting to one side the taken-for-granted world in order to concentrate on the 'things themselves'.

The literature I reviewed gave me some clues about what to look for in the data in terms of psychosocial factors that are likely to have some influence on enactment of pro-environmental values. However, the literature did not provide details about how these factors would show up for people in their lived and situated experience, how the factors manifest differently and why, how factors interact with each other, nor what the outcomes of these interactions are. Nor did the literature tell me how to integrate the various theories, perspectives and concepts into a coherent approach to interpretation. So whilst my analysis was informed and guided by the literature it was still wide open with regards to constructing meanings out of the nuances and complexities of lived experience that I delved into – something that the literature, largely based on quantitative research, could not do.

Thus I propose that the *originality* of this study lies in the transdisciplinary methodology I designed that integrated IPA with frame and metaphor analysis and drew on literature on Self-Determination Theory, psychological threat coping and defence, environmental/ecological identity, and cognitive frames. It lies in the wide range of factors that were taken into account: psychological threat responses, needs, emotions, identities, values and goals, vitality, motivation, mindfulness, cognitive frames about human-nature relationship, and organisational and societal forces. The methodology enabled me to produce a highly nuanced and in-depth analysis of the participants' experience, which generated new insights not just of psychosocial factors but also their dynamics. This information enriches our understanding of the *psychosocial processes and tensions in play for people with pro-environmental values who have formal roles in their organisation to influence and improve environmental policy, strategy and practice*. Personally, I was most struck by three findings: the emergence of vitality as a recurring theme (as an outcome of coping strategies and as a factor affecting the efficacy of coping strategies), the important role of external third sector environmental partners in providing psychological support

unavailable within the organisation, and the way that even when an individual has low conscious embodied awareness, embodied cognition can nevertheless unconsciously leak out through their language.

### **7.3 PRACTICAL CONTRIBUTIONS**

In common with other researchers (e.g. Wright, Nyberg & Grant 2012; Lertzman 2015; Meyerson & Scully 1995; Searles 1972) I find that what is significant is not so much that tensions in experience are present - this is part of being human. Although some tensions could be avoided, it is how tensions are negotiated that matters. This is because of the consequences of coping strategies, directly and indirectly, for adaptive responses to ecological crisis, as I demonstrate in chapter 6. At the same, increasing awareness and understanding of how tensions arise, the factors affecting the efficacy of coping strategies, and the contextual forces that influence us, gives us a fuller picture of what is going on. With this systemic understanding, we are in a better position to make conscious choices and design effective interventions to change the dynamics and outcomes in our situations. Tomashow (1996) argues that environmental activists are particularly vulnerable to burnout due to the different types of stress (personal, organisational, moral, environmental<sup>25</sup>) they are exposed to. Herein lies the practical contribution of my research: I hope my findings will help those working as environmental change agents within organisations to be resilient and stay healthy, vital and effective. Because what this study demonstrates is that working to influence the environmental practices of an organisation to help mitigate climate change, habitat destruction and species loss, is not an easy experience if there is incongruence between values and goals that are salient for the individual and those that are dominant in

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<sup>25</sup> Personal stress: e.g. ambition to achieve; organisational stress: e.g. limited resources and tight deadlines; moral stress: feeling of accountability to live a life that exemplifies pro-environmental values; environmental stress: intimate knowledge of planet's distress

the organisation. Such incongruence could motivate the individual to leave the organisation for one that is more compatible, as one participant had already done and a second subsequently did after the interview (see Appendix 8). This might be a psychologically beneficial step for the individual but where does it leave the task of influencing organisations to respond in more adaptive ways to ecological crisis?

Meyerson & Scully (1995 p598) said that in highlighting ambivalence as a key feature of experience they hoped to give tempered radicals a “a kind of legitimacy, inspiration and sense of community” so they can continue to work as change agents, and not feel compelled to leave the organisation out of frustration or tiredness. The same argument could be made for Wright, Nyberg & Grant’s (2012) work with sustainability specialists in corporations. I consider my research to build upon their work. But I also depart from these two studies by firmly locating my analysis and interpretation in particular ecopsychology philosophical ideas about the relationship between humans and nature, which means the inner world of wild nature in our minds and bodies as well as the outer other-than-human natural world (e.g. Totton 2011; Hasbach 2012; Smith 2010; Plumwood 1993; Midgley 2003; Macy 1993; Naess 1986; Kidner 2001; 2007). This perspective regards human-nature separation as a fundamental cause of ecological crisis (see also White 1967; Bateson 1982; Lakoff 2010; Merchant 1983), and a factor inhibiting us from responding adaptively to this crisis. Dualisms between humans and nature, reason and emotion, mind and body, are integral to the worldview of modern industrialised societies (Plumwood 1993; 2002; Merchant 1983; Midgley 2003) but they are not inevitable and we can subvert them by re-integrating these parts of ourselves and adopting a relational subject-subject cognitive frame with the world in which we are embedded and intertwined (Larson 2011; Lakoff & Johnson 1999; Plumwood 1993; see also Francis I 2015). Furthermore, by being aware how certain language reinforces these dualisms, we may be better able to resist the maladaptive priming effects of such

language when we are exposed to it in organisational settings, and be more mindful about using such language ourselves. This recognition of mind-body relationship as a subset of human-nature relationship is a novel way of understanding the issues at play for people seeking to influence pro-environmental practices in their organisations. But as Orr (2009) says, self-induced ecological crisis is an “invitation to rethink our place in the world and the way we relate to each other and to the larger web of life” (p174). We can “wake up to who we really are” (Macy 2007 p29) – interconnected and interdependent beings with the capacity to act in service to all life (WWF 2011).

Accepting the tensions and inconsistencies in our experience means we can work with them mindfully rather than react unconsciously in ways that may not support autonomous enactment of pro-environmental values through behaviour (Deci et al 2015; Brown, Ryan & Creswell 2007a; 2007b; Rosenberg 2004). This is important because as the literature indicates, we are very susceptible to being unconsciously influenced by the dominant frames and values of our social context (Kasser et al 2004; Uzzell & Rätzsch 2009; see also Chilton et al 2012 and Maio et al 2009 on priming). In the industrialised economic growth societies in which the research participants and I are embedded, this means social primes of consumerism and materialism, which fuel destruction and disruption of the natural world, creating the situation of ecological crisis.

#### **7.4 LIMITATIONS OF THE STUDY**

In chapter 4 I discuss the scope of the research and the strengths and limitations of the methodology, as well as reflect on the research process and what I learnt. Here, I offer concluding reflections on the limitations of the study and consider what I would do differently were I able to do the study again.

Stern (2000) says that environmental behaviour is “dauntingly complex” due to the large number of interacting factors involved. In my research I have engaged with this complexity with a cross-level approach analysing numerous factors and exploring how these factors interact in lived experience. Yet I feel the study has barely scratched the surface of this complexity, there is so much more I could have asked the research participants about their experience and so much deeper I could have probed into each dimension. This is partly due to the research design: it was not a longitudinal study and it relied heavily on one 2-hour interview. But it is also a feature of a systemic approach: unlike reductionist research, the focus is not on going into depth on any one factor. I highlight some areas for further research in the next section 7.4. Ideally, I would have liked to have conducted a longer interview or a second interview with the participants to allow for deeper enquiry into each dimension, and also to have gathered more data about the frames about nature used in the organisation – through direct observation or by getting more audio recordings of strategy meetings. Also, if I were able to do this again I would ask the participants to write about more significant events in their diary rather than just the one. However, as I explain in 4.2.1, I was conscious of not asking too much of the participants.

Secondly, the evidence for some interpretations is less substantial than others, relying for example on a single instance in one participant’s account. From a phenomenological perspective this does not discount its validity, and I have been careful and rigorous in my application of theory in making interpretations. Nevertheless, I would have preferred to have more evidence supporting some of my findings.

Thirdly, the methodology I used enables inferences to be drawn but causal relationships cannot be proven, and this could lead some with a positivist mindset to dismiss the findings. The nuanced analysis and interpretation does not lend itself to snappy sound bites favoured

by the media, or the socio-economic demands for quantitative data to inform social policy (Willig & Stainton-Rogers 2010). This makes it more difficult to summarise and perhaps for others to engage with, but I accept this aspect. I found the process of the using the methodology fascinating because it was so nuanced, and would use it again.

Fourthly, with a sample of six people working in a similar macro cultural worldview context, I do not make any claims about the generalisability of the findings as I make clear in 4.5.3.

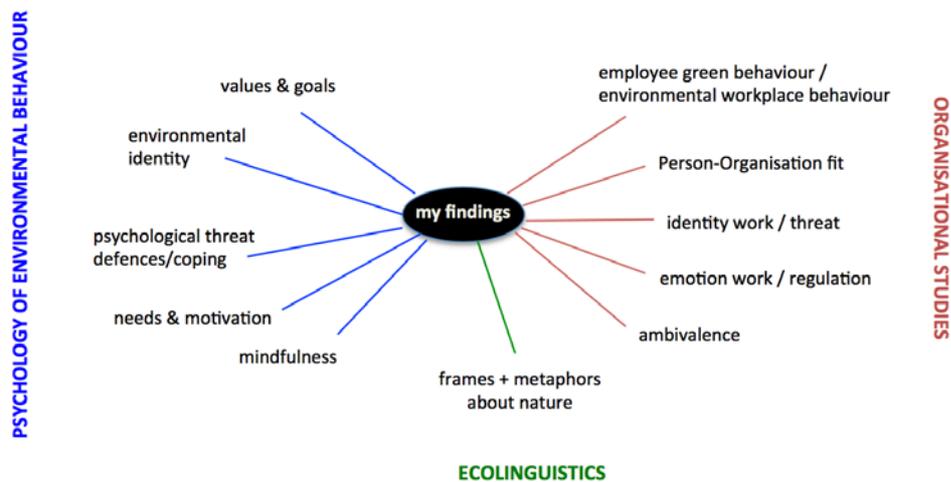
However, Interpretative Phenomenological Analysis does consider that an idiographic focus can reveal something meaningful and significant about the subject matter (see 3.2.3). If I had not been limited by capacity, I would have liked to include a further two research participants ideally from private sector to see how their experience compared with each other and with the public sector participants.

## **7.5 CONTRIBUTIONS TO KNOWLEDGE**

My research explores the territory of underlying drivers of pro-environmental behaviour, particularly those aspects of experience largely hidden from conscious awareness and generally overlooked in the literature on environmental behaviour (Bartlett 2011; Lertzman 2015; Norgaard 2006).

As a transdisciplinary study, my findings have been discussed in relation to various domains of literature across three main disciplines: psychology of environmental behaviour, organisational studies and ecolinguistics (see discussion subsections of chapter 5, 5.11 and in 6.4.3). The key literature topics are shown in Fig. 7.2 below.

Fig. 7.2 Findings and domains of literature



As demonstrated in the discussion subsections in chapter 5, there is high consistency between the 70+ findings my analysis generated and the literature I reviewed yet there are also significant differences. This shows up particularly strongly in my discussion of the models I constructed (see 6.4.3) in relation to the literature on environmental behaviour in the workplace. None of my findings directly contradict the literature and most (but not all) of my findings are reflected to some extent in one or other publication. But no one publication or literature domain covers the same range of psychosocial factors as I have, and they do not to describe these factors and the interactions between them with as much nuance and context-specific detail. Specifically, my study brings new systemic insight to our understanding of the *different tensions that arise for sustainability managers in their work to influence organisational practices, the types of coping they use to negotiate these tensions, the adaptive and maladaptive outcomes of these responses for the individual and the organisation, factors affecting the efficacy of adaptive coping strategies, and the contextual factors (organisational and cultural worldview) that influence their experience. I also contribute new knowledge about how these processes interact.* My study makes both empirical and methodological contributions – these are discussed separately but the two are closely linked for as the theoretical physicist Werner Heisenberg said, “What we observe is

not nature itself but nature exposed to our method of questioning". First I discuss my findings in relation to what the psychology literature says and does not say about coping with psychological threat of ecological crisis, and then I look at the organisational studies literature. As my study has generated over 70 findings, in this discussion I focus on those findings that significantly extend our understanding and make an original contribution.

### **7.5.1 Empirical contribution to psychology literature**

There is a huge body of work on the psychology of environmental behaviour. As Reser & Swim (2011) state, psychological research on human response to global environmental change spans at least three decades (p286). The main empirical contribution of my research is to the 'values-action gap'<sup>26</sup> debate, specifically the *role of psychological threat coping strategies and their interactions with other psychosocial factors*.

To explain my specific contributions, I first set out what the literature I reviewed says, and does not say, about coping strategies.

#### **Types of coping strategies**

First I wish to point out that the coping strategies identified in my research have been discussed in some form across the various domains of psychology literature I reviewed, but they are not always termed as such (e.g. Lorenzoni et al 2007; Gifford 2011), and no one paper includes all the coping strategies I found. In chapter 2 I present a list of coping strategies related to psychological threat of ecological crisis harvested from the environmental behaviour/climate change literature (see Table 2.8 in 2.5.3). There are four coping strategies identified in my research but absent in this particular body of literature:

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<sup>26</sup> I dislike this term because 'gap' implies space between objects that can be bridged. This frame does not align well with the nonlinear, dynamic process-oriented approach taken in this thesis, or with psychoanalytic perspectives on subjectivity (see Lertzman 2015).

pragmatic compromise, motivational story, nature connection and physical exercise. The first is a situated response specific to the experience of working in organisations, and features in organisational studies literature on ambivalence (Ashforth et al 2014). The motivational story is referred to in identity theory (Vignoles et al 2011) and in organisational studies (Wright, Nyberg & Grant 2012) and the latter two are general stress-reducing and revitalising strategies: nature connection has been studied for its effect on vitality (Kaplan & Kaplan 1989; Ryan et al 2010), and physical exercise is mentioned in literature on stress and mindfulness (Weinstein, Brown & Ryan 2009). Nature connection is a particularly important strategy because as my research indicates it can also strengthen pro-environmental values and environmental/ecological identity, which motivate pro-environmental behaviour – in this case working to influence organisational practices. I also provide insight about factors affecting the efficacy of nature connection as an adaptive coping strategy, which is absent in the literature. This points to the overall contribution that my research makes to the ‘values-action gap’ field: nuanced and systemic insights about coping strategies in lived and situated experience (in the specific context of individuals with pro-environmental values working to influence environmental practices in their organisation), including how these coping strategies arise and how they interact with other psychosocial processes to influence pro-environmental cognition and behaviour (see 6.2 and 6.3). This contribution is possible because of the methodology I used that enabled theory from other fields and disciplines such as organisational studies, to inform my analysis and interpretation.

### **Dynamics and interactions**

Reser & Swim (2011) argue that a stress and coping perspective is indispensable to research and policy initiatives addressing the impacts of climate change, yet “little research has so far focused on the nature and dynamics of individual-level coping and adaptation processes and how they influence responses” (Reser et al 2012, cited in IPCC WGII AR5 p841). Based on my

reading of the literature, I think this is true for pro-environmental behaviour more generally. I now give some examples from the literature to illustrate my point and underline the contribution of my research to our understanding of the dynamics of coping responses and how they influence pro-environmental responses in particular contexts.

Steg & Vlek (2009) provide an integrative review of the environmental psychology literature on pro-environmental behaviour. Their review lists the main factors underlying pro-environmental behaviour, but it is far from comprehensive and fails to explore how these factors interact. They refer to the role of affect in relation to car use, which is discussed in the context of hedonic, gain and normative goal-frames but not explicitly in terms of psychological threat response. Emotions about ecological crisis and how they are regulated are not considered, yet I find this is a key coping strategy that has implications for adaptive behaviour.

In contrast, Homburg & Stolberg (2006) seek to explain pro-environmental behaviour using a cognitive theory of stress. However, they only identify problem-focussed coping such as information seeking, which they state leads to pro-environmental behaviour in various domains including the workplace. As my findings show, this is an overly simplistic analysis.

Although limited to climate change adaptation rather than pro-environmental behaviour more generally, a more comprehensive review is provided by Reser & Swim (2011) who construct an integrative framework of parameters and processes with particular emphasis on environmental stress and stress and coping perspectives. Nevertheless, there are still omissions. For example, optimism is mentioned as a factor that may enhance the likelihood of adaptive responses but my finding about the maladaptive risk of unrealistic optimism is not identified. Other factors that feature in my analysis, namely needs, vitality, mind-body

connection and cognitive frames, are not mentioned, and the psychosocial impacts of coping responses is left rather vague. A very broad range of factors is referred to in the American Psychological Association's (2009) report on psychology and climate change, including autonomy, relatedness and competency needs. However, discussion of needs is in the context of consumption specifically (p37) and does not include broader discussion of threat to needs satisfaction and the coping responses that arise. The report calls for research identifying ways to satisfying needs through behaviours that have less effect on the climate (p38). My study shows that certain strategies for dealing with threat to needs satisfaction (e.g. suppression of 'deep green' identity in response to threat to relatedness) can create conflict between needs satisfaction, and can have ecologically adaptive or maladaptive outcomes depending on how the strategy is enacted.

Numerous other studies investigate some of the same factors as I have but in a much more limited way. For example, identity. Whitmarsh & O'Neill (2010) ask but do not address the question of how the salience of pro-environmental identity<sup>27</sup> can be increased relative to other identities (p312). They acknowledge further work is needed to investigate the "functions, construction, and communication of the various dimensions of pro-environmental identity" (p313). My study shows how identity salience is affected by factors such as threat to needs satisfaction and the organisational context. Gatersleben et al (2012) explore the link between values and identity, using a similar definition of pro-environmental identity as Whitmarsh & O'Neill. Here again, only a small number of variables are analysed. Murtagh, Gatersleben & Uzzell (2012) explore self-identity threat, finding a link with resistance to behaviour change. They suggest that threat to freedom is conceptually similar to threat to self-efficacy (p320). However, from a Self-Determination Theory perspective, these relate to different needs, namely autonomy and competency. My analysis enriches

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<sup>27</sup> Measured in terms of concerns and consumer behaviour perception, which is a different construct to both 'environmental identity' and 'ecological identity' as defined in this thesis.

understanding of the link between psychological threat, identity and needs. It finds reducing the salience of a threatened 'deep green' ecological identity in situations of incongruence between the pro-environmental values and goals of the individual and organisation is in service of relatedness, which is in service of competency, although the coping strategy doesn't work completely and is likely to leave some deficiency in needs satisfaction.

Other literature on coping gives particular focus to denial as a barrier to pro-environmental behaviour specifically in relation to climate change mitigation (e.g. see Stoll-Kleeman et al 2001; Norgaard 2006a; Dunlap & McCright 2011). Deeper exploration of unconscious processes including but not limited to denial can be found in the literature informed by psychotherapeutic professional practice and theory (e.g. Randall 2005; 2008; Hoggett 2011; Rust 2008; Lertzman 2015). Whilst providing a much richer account of human subjectivity, it still represents a partial picture, and is not integrated with findings from other fields.

I consider the reductionist shortcomings evident in the literature (with the exception of the psychoanalytically informed literature) to be due in large part to the methodology that dominates psychology research. This is discussed further in methodological contributions 7.3.2.

### **Key contributions**

The key contributions of my study to psychology literature on environmental values, behaviour and the role of coping strategies are as follows. The details are explained in chapter 6.

- Identifies various sources of tensions and threats that trigger coping responses in the specific context of individuals with pro-environmental values working to influence environmental practices in their organisation

- There is entanglement of threat responses to ecological crisis with threat responses activated by the experience of working to address ecological crisis in organisational contexts that also provide threats to needs satisfaction
- Identifies and models relationships between psychological threat, coping responses, needs, identity and other psychosocial processes involved in the experience of working to influence pro-environmental practices in organisations
- Identifies direct and indirect outcomes of coping strategies for individuals and organisations in terms of whether they are ecologically adaptive or maladaptive. Direct outcomes support congruent enactment of pro-environmental values and identities in behaviour. Indirect outcomes help satisfy core needs and maintain/enhance vitality, which supports the individual's psychological wellbeing and effectiveness in doing their work.
- Identifies psychosocial factors that affect the efficacy of adaptive strategies, e.g. cognitive frames about nature affecting the restorative and/or environmental/ecological identity strengthening benefit of nature connection experiences
- Identifies particular organisational and macro-contextual (cultural worldview) factors that can influence pro-environmental cognition and behaviour by affecting strength and salience of values and identities, experience of tensions, needs satisfaction, and adaptive regulation of emotions about ecological crisis
- Distinguishes between 'environmental' and 'ecological' identity (the former means sense of self as part of nature, the latter extends this definition to also include inner connection with 'wild' parts of the self), and 'pro-environmental identity' (which refers to sense of self as an environmentally-friendly consumer with environmental concerns but not to sense of self as part of nature). This clarification is important as the definitions draw on different philosophical concepts.

### **7.5.2 Empirical contribution to organisational studies**

I find the organisational studies literature very limited in its exploration of environmental behaviour because it barely engages with the complexity of influencing factors (Stern 2000), in particular psychological threat coping strategies and related processes. My findings have

most to offer to three areas of research in particular: pro-environmental behaviours in organisations, identity work (including sense of place), and emotion regulation. With each area I begin with a brief discussion of the literature in relation to my findings. This provides the explanatory background for my particular contributions to knowledge.

**a) Environmental behaviour in organisations**

This area of research is concerned with employee green behaviour. Some scholars use slightly different labels such as sustainable behaviour in organisations (Lülfes & Hahn 2014), workplace pro-environmental behaviours (Lo 2015; Kennedy, Whiteman & Williams 2015), environmental workplace behaviour (Ciorcirlan 2016), or pro-environmental behaviour in the workplace (McDonald 2014) but essentially it is the same thing.

Firstly, the definitions of EGB and green employee provided by Norton et al (2014) and Ciorcirlan (2016) respectively do not fully accommodate the situations that my research participants are in, even though their definitions are already building upon and broadening other definitions in the literature. Norton et al's definition has been covered already in 6.4.3. Ciorcirlan proposes that a green employee has a) commitment to an environmental identity and that this identity is salient, b) intrinsic motivation, and c) aims for consistency between work and home behaviours. The definition of 'environmental identity' that she draws on is broad: "experienced social understanding of who we are in relation to, and how we interact with, the natural environment" (from Weigert, 1997 p. 159, cited in Ciorcirlan 2016 p2), although she also references Clayton (2003) who uses a tighter definition of sense of connection to the non-human natural world. My research participants have intrinsic motivation but the salience of environmental identity (as defined in Ciorcirlan 2016) and their commitment to it is dynamic and contains tensions. Consistency between work and home behaviours was not explicitly mentioned as an aim by any of my participants. Indeed,

for one the pro-environmental focus of his job seemed to justify not doing much in his home life. This response is interpreted as a form of coping strategy (bargaining and minor behaviour change) of which he may not be consciously aware. Another participant talked about the relationship between her ideal self and her actual self, rather than between her work behaviour and her home behaviour. Soenens & Vansteenkiste (2011) remind us that the goals people display at the surface may not always be the goals they hold deep down. My findings suggest that a stated aim of consistency between work and home behaviours is not necessarily a key defining characteristic of 'green' employees.

Secondly, the literature takes a perspective that is concerned with how the organisation can improve employee green behaviour (e.g. see Lülfs & Hahn 2014; McDonald 2014), and not so much with how the individual can improve organisational behaviour, which the focus of my study.

Thirdly, I find this area of research takes an organisational perspective of considering behavioural outcomes in terms of value to the organisation (e.g. Norton et al 2014; Hoffman 1993) rather than value to the natural world, which is the concern of my study. This bias is also noted by Ciorcirlan (2016) in her review of environmental workplace behaviour literature.

Fourthly, due a lack of research and an over-reliance on the theory of planned behaviour (TPB) in the literature, knowledge about 'within-person' factors is limited (Norton et al 2014 p118; Lo 2015). TPB has been critiqued for its assumptions about rationality and the narrow focus of variables considered (Kolmuss & Agyeman 2002; Lorenzoni et al 2007; McDonald 2014; Lo 2015). Furthermore, Lülfs & Hahn (2014) in their review of the literature find that studies have dealt with different determinants on an isolated rather than integrative way

and do not provide insights into interactions between different determinants (p46). My study explores a range of within-person factors, and their dynamics.

Fifthly, according to Norton et al (2015) who conducted a review of EGB literature, multilevel research on EGB “seems to be still in its infancy” (p104). A lack of research examining the interaction between individual and organizational level factors has been noted by Kennedy, Whiteman & Williams (2015), Russell & Friedrich (2015) and Lo (2015). My study makes links between the individual level with organisational and macro-social levels.

### **Key contributions**

As the above discussion indicates, my findings contribute to the field of environmental behaviour in organisations in the following ways:

- The study extends the concept of environmental behaviours in organisations to include employees who have formal roles in their organisations with regards to influencing environmental policy, strategy and practice. Environmental ‘behaviour’ is not just the everyday actions of the employee such as recycling and reducing waste and energy consumption but also includes efforts to influence and improve the organisation’s practices.
- My analysis is ultimately concerned with value to the natural world, and so introduces a focal shift in this literature from anthropocentric to ecocentric.
- My findings demonstrate that there is a *much* wider range of factors in play than has been identified (see 6.2 for details). For example, although identity is included in some models as a factor that influences behaviour via intention (McDonald 2014), the concept of ecological identity as defined in this thesis is missing (Ciocirlan 2016 doesn’t consider connection with nature within the self). My findings do however build on the work of Whiteman & Cooper (2000) that finds ecological embeddedness or sense of place to be associated with sustainable management practices<sup>28</sup>.

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<sup>28</sup> This is discussed in more detail in the following subsection on Identity work.

The literature does not discuss how the experience of working to influence pro-environmental change in organisations involves tensions and perceptions of psychological threat, which are negotiated with a variety of coping responses with implications for vitality and for pro-environmental behaviour. Connecting with the non-human natural world either as a coping strategy or as a way to strengthen pro-environmental values and ecological identity is also absent in this literature. Although self-efficacy has been linked to pro-environmental behaviour (Kennedy, Whiteman & Williams 2015), there is no consideration of the role of competency, autonomy and relatedness needs, how these are satisfied or thwarted by a) the coping strategies used by individuals and b) by organisational contexts, and what the implications are for enacting pro-environmental values. The importance of external partners for psychological support is also not discussed.

- The study provides cross-level and multifactor insights regarding the interactions of psychosocial processes (see 6.3), and the influence of organisational contexts (see 6.2.5) and the macro context of cultural worldview (see 6.2.6).

#### **b) Identity work**

The ways in which individuals fashion and negotiate their identities is a rapidly expanding body of literature, in recognition of the central importance of identity at work (Phillips & Oswick 2012 p12). However, the field is limited. Petriglieri (2011) states that scant attention has been paid to what happens in between an identity-threatening experience and its consequences i.e. the process by which individuals recognise an experience as identity threatening, assess its impact and decide how to respond. Given the preference for rational-choice framing in this literature, it is not surprising so little attention has been given to it because threat responses involve non-rational and unconscious processes (see 2.5.3).

Firstly, I found that the identity work and identity threat literature tends to be about responses to organisational change and the consequences of change at the individual and organisational level (e.g. see Barry et al 1981; Petriglieri 2011; Brown 2015; Alvesson &

Wilmott 2002), rather than about the lived experience of change agents, which is the focus of my study.

Secondly, I did not find references to the constructs of environmental or ecological identity. However, the construct of ecological embeddedness or sense of place is relevant to identity work, although it tends to sit in other domains of organisational studies (e.g. Whiteman & Cooper 2000, 2011; Guthey, Whiteman & Elmes 2014; Shrivastava & Kennelly 2013). This construct emphasises the link between strong personal identification and a relationship of care with a place and its inhabitants, and sustainable management practices. As such it is related to environmental identity, defined as a sense of self as part of and connected with the nonhuman natural world. There may also be crossover with ecological identity if it involves relating to a place and its inhabitants with a subject-subject perspective and with the whole of one's self, including one's emotions, physical body, intuition and unconscious mind. My study builds on organisations and place literature by investigating the interactions of ecological identity with other psychosocial factors from the perspective of the individual (sustainability managers and leaders), and exploring the implications of these processes for congruent enactment of pro-environmental values.

Thirdly, the identity literature does not discuss identity work or identity threat in the context of coping responses to ecological crisis, which is the perspective taken in my research.

Wright, Nyberg & Grant's (2012) research with sustainability managers in corporations comes the closest as they situate their research in the context of climate change. They find that when sustainability specialists engage with climate change this challenges dominant and privileged discourses in the organisation of shareholder value and economic growth. Due to this conflicting discourse in organisations, sustainability specialists are situated in a contradictory space – they are 'outsiders within'. The authors conclude that the possibility to

politically influence the organisation is dependent on how the individual negotiates these conflicts and how they manage their identities. Most of their research participants enacted multiple identities dependent on the context. The authors argue that these identities provide a sense of self that is an important resource and motivation in the participants' work as change agents. Their study acknowledges the psychological threat posed by climate change to sense of self but they don't follow this theoretical thread further by interpreting their results with reference to stress and coping literature. In my analysis, threat to needs satisfaction adds nuance to our understanding of identity work as a coping strategy. The implications for vitality and inner coherence of suppressing an identity are also not considered by Wright et al.

Fourthly, most research on organisation-based identities focuses on a single level of analysis (Ashforth, Rogers & Corley 2011). How organisational and national cultural contexts affect individual's identities and identity work is a recognised research gap (Brown 2015). Although Wright et al's study contributes to an understanding of the dynamic interaction between identities and organisations, their analysis does not include other aspects of experience that affect identity that I investigated such as how the organisational context can reinforce emotion-reason dualism and can affirm or undermine ecological identity. Indeed, the concept of a self-identity centred on a sense of connectedness with nature is not included in their analysis.

### **Key contributions**

My findings broaden the scope of the identity work domain and extend it into new territory by developing understanding of:

- The concept of ecological identity, meaning a sense of self as connected with outer and inner nature

- Reduction in saliency of ecological or 'deep green' identity as a coping strategy for dealing with threat to relatedness and competency needs in individuals seeking to influence and improve pro-environmental practices
- Alternative (and possibly more adaptive) coping strategies to reducing saliency or suppression of environmental/ecological identity, specifically out-sourcing a 'deep green' identity to external environmental partners in an extended cognition
- The ecologically adaptive and maladaptive outcomes of identity work coping strategies, including indirect outcomes relating to vitality and effectiveness
- How organisational and societal contexts can influence expression and suppression of 'deep green' and 'pragmatic professional' identities, and reason-emotion duality at the level of identity, e.g. through incongruence of organisational values with individual values
- How the organisational context may undermine strengthening of environmental/ecological identity e.g. through lack of visual cues of the natural world in the workplace
- How the macro-social context through its discourse can impede cultivation of an ecological identity that centres on an intimate relationship of care with a place and its inhabitants e.g. through dominant use of Economic frames about nature
- Contributes to sense of place research with insights on the relationship between ecological identity and other psychosocial factors that shape environmental cognition and behaviour at the individual level. These processes have implications for individuals' efficacy in influencing pro-environmental practices in their organisations.

### **c) Emotion regulation**

There is a large body of research on emotion in the workplace, which tends to be approached through subdomains of emotional labor, emotion work or emotion regulation, although there is crossover between these and definitions vary.

Emotional labor is the expressing of emotions as an occupational requirement (Humphrey, Blake & Diefendorff 2011; Grandey, Diefendorff & Rupp 2013), regulating or managing emotions when interacting with others, mainly customers or clients, as part of the work role (Grandey & Gabriel 2015), or displays of work role-specific emotions (Grandey, Diefendorff & Rupp 2013). Emotion work has been defined as “the act of attempting to change an emotion or feeling so it is appropriate for any given situation” (Bolton 2005 p50, cited in Clarke, Hope-Hailey & Kelliher 2007), and also as management of emotion done in private for personal motives (Hochschild 1983). Emotion regulation is “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross 1998b p275, cited in Grandey 2000). Grandey (2000; Grandey & Gabriel 2015) has argued for emotion regulation to be regarded as a new way to conceptualise emotional labor because it offers a framework for understanding its mechanisms.

Firstly, I find the literature on emotion in the workplace reflects some of my findings, such as the work on typology of emotion regulation, the effortful nature of suppression, and the implications of suppression for inner coherence (e.g. Grandey 2000; Grandey & Gabriel 2015). But it does not cover coping with emotions about ecological crisis when environmental sustainability is part of one’s job (e.g. see Grandey, Diefendorff & Rupp 2013), which is a core part of my study. In this respect it is missing some key elements of my findings, and here is where my contribution lies.

Secondly, although there is some literature on emotion and environmental behaviours in organisations, it deals with the topic in a different way and is about employee green behaviours - which as I pointed out above (see Environmental behaviour in organisations) is not an exact match to my study in terms of definition. In their review of this literature, Russell & Friedrich (2015) report that positive emotions are associated with greater

engagement with pro-environmental behaviours in the workplace. My findings about the positive and optimistic nature of the participants' Motivational story are to do with the function of the story as a coping strategy, to help maintain inner coherence and motivation. The literature does not explore the possibility that these positive emotions may be maladaptive if they are unrealistic and a denial of the reality of the situation. Fineman (1996) also has a different angle on the topic by considering the emotional meanings that managers' attribute to pro-environmental changes in supermarkets. He states that both positive and negative emotions (e.g. guilt, embarrassment) play a strategic role in the adoption of pro-environmental behaviours in organisations. My study on the other hand is focussed on the individuals as active change agents rather than as recipients of organisational change.

Thirdly, some literature takes an interpersonal level of analysis. For example, Wright & Nyberg (2012) find that sustainability managers use a positive frame of challenge and business opportunity to communicate climate change within their corporations. Here again, the focus is different to my findings which are about emotion regulation as an *intrapersonal* coping strategy. This strategy is adopted out of fear that engaging fully with difficult emotions about ecological crisis will lead to dysfunction and an undermining of effectiveness. These emotions therefore are perceived as a threat to competency need satisfaction, and suppression or other forms of avoidance are performed in service of being effective in performing the work role. The emotion regulation literature does not explicitly analyse emotion regulation in terms of threat to needs satisfaction in the context of ecological crisis, although it does discuss emotion as being perceived as the antithesis or absence of rationality, which is regarded as necessary for accomplishing tasks (e.g. Ashforth & Humphrey 1995).

Fourthly, the literature does not explore emotion regulation in terms of mind-body connection and ecological identity, or the implications of disembodiment for adaptive responses to ecological crisis.

Lastly, my findings also offer insight about how organisational contexts can undermine engagement with difficult emotions, through an organisational culture that promotes reason-emotion dualism and defends against feeling difficult emotions. This builds on Ashforth et al's (2014) work on the supportive or undermining role that organisational cultures can play with regards to engaging with complex, difficult issues that trigger negative emotions.

### **Key contributions**

My findings contribute to our understanding of the relationship between emotion regulation and pro-environmental responses in organisations, and to our understanding of the interaction between individual and organisational levels. The findings extend the field of emotion regulation by offering insight about:

- Regulation of difficult emotions about ecological crisis by sustainability managers as an intrapersonal coping strategy for dealing with perceived psychological threat to competency needs satisfaction, and the implications of suppression for their vitality and effectiveness
- How the organisation may reinforce emotion-reason dualism and provide an unsafe container for an individual to engage with difficult emotions about ecological crisis, e.g. through organisational discourse that creates a perception that feelings are not important, it is the business case that matters
- The implications of emotional avoidance for pro-environmental behaviour at the individual and organisational level, due to a) the role of felt emotions in directing attention and guiding adaptive responses, and b) how non-integration of emotions with other aspects of the self undermines mind-body and human-nature connection,

which has implications for ecological identity and hence pro-environmental behaviour

### **7.5.3 Methodological contributions**

In this thesis I have demonstrated that different elements can be integrated into a coherent transdisciplinary methodology. I argue that my findings are evidence of the merits of using this approach for enquiring into the complexity of environmental behaviour and surfacing some of the underlying drivers and tensions, because rich insights have been generated that would not have been possible with more conventional approaches. The core elements of my methodology are:

- An understanding of human experience as psychosocial i.e. the psychological and the social are always implicated in each other
- Systemic approach to investigating multiple cross-level factors and their dynamics
- Interpretative Phenomenological Analysis as a framework for enquiring into lived, situated and embodied experience, integrated with the embodied realism epistemology from cognitive linguistics
- Transdisciplinary application of theory and use of frame and metaphor analysis (a form of micro-discourse analysis) to get beyond the limitations of descriptive analyses of self-report accounts to construct interpretations offering alternative narratives of participants' experience
- Use of my own professional, experiential, intuitive and intersubjective knowledge in analysis and interpretation of data

The main theories underpinning the study:

- Self-Determination Theory
- Environmental philosophy about ecological identity (human-nature dualism is root cause of ecological crisis, mind-body and reason-emotion dualisms are related subsets)
- Psychological threat and coping
- Cognitive linguistics

I propose that my research makes methodological contributions to three fields of research in particular, which I now discuss.

**a) Psychology of environmental behaviour**

As has been observed elsewhere in this thesis, current psychology research tends to use quantitative methods involving self-report data and draws heavily on the theory of planned behaviour (TPB) and other similarly limited explanatory frameworks, which are approaches that do not lend themselves to investigating complex unconscious processes. Willig & Stainton-Rogers (2010) suggest this methodological emphasis has been partly driven by socio-economic demands for quantitative data to inform social policy. The climate psychology and ecopsychology domains are more inclusive of other methodologies. For example, the psychoanalytically informed work tends to draw on psychotherapeutic professional knowledge and practice, although there are some field studies using methods such as free associative interviews (e.g. Lertzman 2015).

None of the literature I reviewed used micro-discourse analysis (specifically frame and metaphor analysis) as a way to research below the surface of conscious awareness. Nor has the literature analysed mind-body connection as part of an exploration into ecological identity as a factor influencing pro-environmental behaviour. Research findings that were not reflected in the literature, and which were only possible because of these aspects of methodology, are:

- Suppression of emotions manifested in the participants' manner of speech, and could be discerned with use of frame and metaphor analysis
- There may be low conscious embodied awareness, but embodied cognition leaks out through language, discerned with use of frame and metaphor analysis

- Inconsistencies and tensions in felt sense of connectedness with nature, and the cognitive frames about nature that may be contributing to this

**b) Organisational studies of environmental behaviour**

The field appears to be dominated by analyses using the theory of planned behaviour (see 6.4.3 and 7.4.2). Grandey & Gabriel (2015) report that measures of emotion regulation tend to be self-reported and that emotion performance is measured in field observations of facial or vocal cues of emotional expressions. With regards to identity threat research, Petriglieri (2011) notes that field research has relied on individuals mentioning the presence of identity threat in qualitative interviews. Neither Grandey & Gabriel nor Petriglieri specify how the data was analysed but I found no indications here, or indeed in any of the literature, of frame and metaphor analysis. Nor did I find phenomenological studies of lived experience. The philosophical perspective that I have taken to interpret cognitive frames about nature and to determine whether outcomes of coping strategies are ecologically adaptive or maladaptive has also not been used. Some studies (Norton et al 2015; McDonald 2014) drew on theory about controlled/autonomous motivation from Self-Determination Theory (SDT), but none used the related SDT theory on needs satisfaction, mindfulness or intrinsic/extrinsic goals and the implications for pro-environmental behaviour.

An example of a finding that would not be possible without a cognitive linguistics approach is about the way in which incongruence in values and goals between the individual and the organisation creates tensions that are experienced as an oppositional dynamic that manifests in a Fight (threat) and a Game (challenge) cognitive frame. The participant with a salient Game frame had more organisational support but he still also used Fight metaphors. This indicates a conceptualisation of his situation of manageable challenge as having potential to turn into a threat. Another example is the sense of relentless pressure associated with conceptual metaphors LIFE IS JOURNEY and PROGRESS IS FORWARD MOVEMENT

that could ultimately contribute to burnout. Thirdly, frame and metaphor analysis enabled me to discern exertion of effort in participant experience, and to draw conclusions about the implications for vitality.

### **c) Ecolinguistics**

My contribution here relates to both the level and the subject of analysis. My approach involved exploring conceptualisations of self-nature (including mind-body) relationship through enquiry into lived experience of individuals, and reflecting on their implications for enacting pro-environmental responses. This way of analysing language for the way it encourages ecologically adaptive or maladaptive responses is a unique methodological contribution to this field, which focuses on discourses and conducts organisational, institutional, media, political or societal levels of analysis (e.g. Stibbe 2015).

Furthermore, none of the conceptual metaphors analysed in 5.11 have been discussed in this literature or any other I reviewed as factors affecting the efficacy of nature connection as an ecologically adaptive coping strategy.

#### **7.5.4 Impact**

I have had four papers accepted for publication through peer-review process (see Appendix 9 for details). One paper for the journal *Ecopsychology* I later withdrew before publication for copyright reasons because a similar paper had just been accepted for a chapter in a book. To date, this chapter has been downloaded 328 times.

## **7.6 FURTHER RESEARCH**

This study has generated some original contributions to knowledge, and also insights that can have real world impact. Yet as stated in 7.3.5, as a cross-level study into multiple factors

it has also yielded some tantalising insights where further investigation is needed to develop a better understanding of how particular factors influence adaptive responses to ecological crisis in particular contexts. My analysis generated 73 findings, and many of these could lead to studies in their own right. In suggesting areas for further research I select those that have particular potential to make a significant contribution to the design of interventions to support pro-environmental behaviour:

- a) Mindfulness interventions to (i) support mind-body integration and healing perception of human-nature separation, and (ii) notice social primes. Investigate whether these interventions make a tangible difference with regards pro-environmental behaviour.
- b) Interventions to strengthen ecological identity, and explore how organisational contexts can be designed to support rather than undermine ecological identity
- c) Investigation of cognitive frames that are salient in nature connection experiences and how this affects its efficacy as a coping strategy
- d) Investigation of the type of attention (directed or involuntary, mindful or self-focussed) that is drawn upon in attending to embodied experience and how that affects cultivation of mind-body integration
- e) Explore how mindful engagement with negative emotion about ecological crisis supports an adaptive response
- f) Explore effect of use of particular metaphors on sense of connectedness with nature, particularly TIME IS MONEY, ATTENTION IS RESOURCE, SIZE IS IMPORTANCE, NATURE IS OBJECT, HUMAN/NATURE IS MACHINE, NATURE IS EXTERNAL NON-HUMAN WORLD and NATURE IS ECONOMIC RESOURCE
- g) Explore priming effects of language on environmental decision-making in organisational contexts

## 7.6 CONCLUSION

This thesis has explored the lived experience of six sustainability managers and leaders in order to find out about key psychosocial factors affecting how their pro-environmental values are enacted in their work to influence environmental practices in their organisation. The results illuminate the complex nonlinear dynamics and tensions between the particular social contexts in which the participants are situated and psychological threat coping strategies, needs, motivation, identities, values and goals, emotions about ecological crisis, mindfulness, and cognitive frames about nature. In this thesis I show how these processes interact, and consider the implications for adaptive responses to ecological crisis. The study contributes new empirical insight to our understanding of underlying drivers of environmental behaviour in organisational contexts, and demonstrates the value of a transdisciplinary and phenomenological approach to investigating this under-explored area of research. Fundamental to this study is the concept of 'ecological identity' - a sense of self as part of nature, including inner connection with 'wild' parts of the self. This research invites the reader to reflect on how *they* conceptualise human-nature relationship and the connection between inner and outer experience, and to consider the assumptions and ideologies that underpin research on environmental behaviour and sustainability, particularly those that reinforce dualisms of mind over body and that privilege humans over our kin in the community of life.

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## APPENDICES

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### APPENDIX 1 - Website recruitment text

#### **Final call to join novel study: your experience of influencing organisational environmental impact**

Posted on March 2, 2014 by cultureprobe

*Individuals who care about the natural world often struggle to enact this in all contexts of their lives. Why is this, and what helps bridge the gap between pro-environmental intention and action?*

These questions are becoming ever more urgent as the global ecological crisis worsens. Although this area has received increased attention by researchers and policy makers in recent years, it remains under-explored, particularly in relation to individuals in the workplace.

My PhD research at Lancaster University seeks to address this, with an interdisciplinary psychosocial and cognitive linguistic approach. Importantly, the research aims to generate learning of practical use to individuals wishing to improve their pro-environmental effectiveness in the workplace.

I am looking for business professionals with decision-making authority in relation to environmental policy and strategy to take part in a unique collaborative inquiry into their phenomenological experience of influencing their organisation's environmental impact.

It may be that your experience of influencing your organisation has led to particular insights, questions or dilemmas. Perhaps you would welcome the opportunity to reflect on and inquire into factors influencing your pro-environmental motivation, resilience and effectiveness, in the context of an academic study? If so, then please do get in touch. Participation and data is confidential.

**Interested?** For an initial conversation about the research and your potential involvement please [contact me](#)

#### **Participation involves:**

- completing a short preliminary online survey c. 10 mins
- orientation conversation (explain interview topics, focus on particular incident) c 20 mins
- semi-structured interview (preferably face to face, otherwise by video skype) 1 to 2 hours
- debrief conversation (including discussion of research findings, explanation of theoretical frameworks used in interpreting data) c 1 hour

There is potential for **further involvement** in the research, to generate valuable richer insight and learning for both participant and researcher:

- completing self-reflective journal over a period decided by you
- second interview
- workplace observation (e.g. researcher attending a policy or strategy meeting)
- facilitating access to policy and strategy documents

Participation can be anytime until Oct 2014, whenever suits you best. Your involvement could be as short as two weeks or as long as several months, it's up to you.

## APPENDIX 2 – Participant Information Sheet



### PARTICIPANT INFORMATION SHEET



**Research project:** The experience of Influencing organisational environmental impact

**Researcher:** Nadine Andrews, HighWire DTC Lancaster University

**Contact:** Nadine Andrews: n.andrews@lancaster.ac.uk

**Second contact in case of complaints or concerns:** Professor Stuart Walker, ImaginationLancaster, Lancaster University, Lancaster LA1 4YW. Tel 01524 510872 Email s.walker@lancaster.ac.uk

#### About the research

The project takes an individual-level analysis approach to investigate the intersection between individuals and organisations in environmental impact policy and strategy design.

More specifically, the research seeks to:

1. Contribute new insight into what happens between individual intention (as motivated by environmental identity) and actions that aim to influence the organisation to improve environmental impact
2. Generate theory about key influencing factors

Designed with a novel interdisciplinary approach, the project builds on and brings together specific research and scholarship on the psychology of environmental behaviour and organisational studies on environmental sustainability and responsibility.

As well as contributing new knowledge to each of the above fields, the study aims to identify good practice and evaluating the degree to which such practice might be transferable. The research also seeks to generate learning that can be of practical use to individuals wishing to improve their pro-environmental effectiveness in the workplace.

#### Expectations of participation in the research

At the start participants complete an online survey which should take around 20 minutes to complete.

Participation involves committing to:

- Completing a short online survey
- Orientation conversation
- One interview (preferably face to face, otherwise by video skype)
- Debrief conversation

There is potential for further involvement in the research, which would generate valuable richer insight and learning:

- Completing self-reflective journal over a period decided by you
- Second interview
- Observation of you at work (e.g. in a policy or strategy meeting)
- Facilitating access to policy and strategy documents

Further involvement in the research as detailed above will be agreed in collaboration with the participant.

Participation in the research is voluntary, and participants are free to withdraw at any time. On written request data can be deleted from the study up to 4 weeks after the point of collection.

#### Use of data

Data will be used in the researcher's PhD thesis and in published papers, reports, articles and presentations.

All data gathered through the research will be handled confidentially and in accordance with Data Protection Act 1998.

18/3/14

APPENDIX 3 – Consent form



CONTACT DETAILS

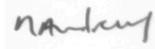
Participant Identification Number:

**CONSENT FORM**  
**PROJECT TITLE : INFLUENCING PRO-ENVIRONMENTAL IMPACT OF ORGANISATIONS**

Name of Researcher: Nadine Andrews

**Please initial box**

- 1. I confirm that I have read and understand the information sheet dated 18/3/14 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
- 3. I understand that any information given by me may be used in future reports, articles or presentations by the research team.
- 4. I understand that my name will not appear in any reports, articles or presentations.
- 5. I agree to take part in the above study.

_____	_____	_____
Name of Participant	Date	Signature
Nadine Andrews	18/3/14	
_____	_____	_____
Researcher	Date	Signature

**When completed, please return in the envelope provided (if applicable). One copy will be given to the participant and the original to be kept in the file of the research team at:  
HighWire DTC, LICA Building Lancaster University**

HighWire Doctoral Training Centre, Lancaster University, Lancaster LA1 4YT  
Tel: 07977 515 977 ♦ E-mail: n.andrews@lancaster.ac.uk ♦ Web: <http://highwire.lancaster.ac.uk/>

Consent Sheet

18 March 2014

## APPENDIX 4 – Recruitment survey



### Preliminary survey in a PhD study exploring your experience of influencing organisational environmental impact

In completing this survey you are providing information useful to the rest of the PhD research. It should take no more than 20 mins to complete. All data is handled confidentially.

Thanks for taking part.

**\* 1. Please enter your name below**

**\* 2. Please give your reasons for your interest in taking part in this study**

**\* 3. Please explain why you are involved in developing environmental policy and/or strategy in your organisation**

**\* 4. Below is a collection of statements about your everyday experience. Using the 1-6 scale below please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.**

- 1 = almost always
- 2 = very frequently
- 3 = somewhat frequently
- 4 = somewhat infrequently
- 5 = very infrequently
- 6 = almost never

	1	2	3	4	5	6
I could be experiencing some emotion and not be conscious of it until some time later.	<input type="radio"/>					
I break or spill things because of carelessness, not paying attention, or thinking of something else.	<input type="radio"/>					
I find it difficult to stay focused on what's happening in the present.	<input type="radio"/>					
I tend to walk quickly to get to where I'm going without paying attention to what I experience along the way.	<input type="radio"/>					
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	<input type="radio"/>					
I forget a person's name almost as soon as I've been told it for the first time.	<input type="radio"/>					
It seems I am 'running on automatic' without much awareness of what I'm doing.	<input type="radio"/>					
I rush through activities without being really attentive to them.	<input type="radio"/>					
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right not to get there.	<input type="radio"/>					
I do jobs or tasks automatically, without being aware of what I'm doing	<input type="radio"/>					
I find myself listening to someone with one ear, doing something else at the same time	<input type="radio"/>					
I drive places on 'automatic pilot' and then wonder why I went there.	<input type="radio"/>					
I find myself preoccupied with the future or the past.	<input type="radio"/>					
I find myself doing things without paying attention.	<input type="radio"/>					
I snack without being aware that I'm eating.	<input type="radio"/>					

**\* 5. Do you practice mindfulness meditation? Please select the answer that closest matches your experience**

- Never / don't know what  
 Tried it a few times  
 About once a month  
 About once a week  
 Four times a week or more  
 mindfulness meditation is

**\* 6. Please answer each of these questions in terms of the way you generally feel. There are no right or wrong answers. Using the following scale, simply state as honestly and candidly as you can.**

**1 = Strongly disagree**

**3 = Neutral**

**5 = Strongly agree**

	1	2	3	4	5
I often feel a sense of oneness with the natural world around me.	<input type="radio"/>				
I think of the natural world as a community to which I belong.	<input type="radio"/>				
I recognise and appreciate the intelligence of other living organisms.	<input type="radio"/>				
I often feel disconnected from nature.	<input type="radio"/>				
When I think of my life, I imagine myself to be part of a larger cyclical process of living.	<input type="radio"/>				
I often feel a kinship with animals and plants.	<input type="radio"/>				
I feel as though I belong to the Earth as equally as it belongs to me.	<input type="radio"/>				
I have a deep understanding of how my actions affect the natural world.	<input type="radio"/>				
I often feel part of the web of life.	<input type="radio"/>				
I feel that all inhabitants of Earth, human and nonhuman, share a common 'life-force'	<input type="radio"/>				
Like a tree can be part of a forest, I feel embedded within the broader natural world.	<input type="radio"/>				
When I think of my place on Earth, I consider myself to be a top member of a hierarchy that exists in nature.	<input type="radio"/>				
I often feel like I am only a small part of the natural world around me, and that I am no more important than the grass on the ground or the birds in the trees.	<input type="radio"/>				
My personal welfare is independent of the welfare of the natural world.	<input type="radio"/>				
I feel that my own interests will sometimes be in conflict with the goal of preserving the natural environment.	<input type="radio"/>				
Humans have the right to modify the natural environment to suit their needs.	<input type="radio"/>				
Humans will eventually learn enough about how nature works to be able to control it.	<input type="radio"/>				

Done

## APPENDIX 5 – Participant brief

Nadine Andrews  
Lancaster University

### INTERVIEW TOPICS

#### General topics I will ask you about

- You and the natural world (how you think and feel about it)
- Your organisation and the natural world (it's impact on and relationship with nature, and how you think and feel about that)
- You and your organisation (your work in influencing environmental decision-making)
- Your experience of influencing your organisation's environmental decision-making

#### Specific experience

I will ask you about your experience of a specific event that involves you interacting with colleagues, engaging with ethical dilemmas and making decisions (e.g. an environmental policy or strategy meeting).

- A. In order to get rich and accurate information, it would be helpful if during this event you could pay attention to the following 3 aspects of experience:
1. Physical sensations you notice in your body (e.g. slow/fast heart beat, shallow/deep breathing, whether any tightness or tension in part of body, increases/decreases in sweating, dryness/moisture in mouth)
  2. Feelings and emotions that arise (e.g. calmness, anxiety, excitement, frustration, relaxation, defensiveness, openness, lightness, heaviness)
  3. Thoughts (e.g. thoughts about what is going on in the meeting, thoughts about what you are feeling inside, thoughts about what to do or say next)

You may want to write some notes during the meeting or as soon as possible afterward as a memory aid.

- B. I would also like to know the following details:
1. What the meeting was about, what decisions (if any) were made
  2. What you wanted from the meeting, and what you got
  3. If there were any views that were not shared, if so what were they, how you felt about that, and how you responded

#### Keeping a journal

If you are writing notes about your experience in a journal please try to include:

- a) Details about the event, as described in B above
- b) Observations of physical sensations, feelings and thoughts, as described in A above
- c) What was going on in the meeting that may have triggered the physical sensations, feelings and thoughts you observed in yourself
- d) Your reflections on the meaning that the things you have written about in a) and b) have for you

14/7/14

## APPENDIX 6 – Interview topics & example questions

### A. Conceptualisation of human-nature relationship

What is your view on environmental issues - what are the issues, and causes?  
What do you think are the ways forward - what needs to be done?  
What role, if any, do you think science and technology play?  
What do you think is likely to happen in future; will things be better or worse than now?  
How do you feel emotionally about the above?

### B. Your relationship with nature

Tell me about your relationship with nature - what do you do, and how do you feel about the natural world?  
To what extent do you feel part of nature, why is this, what is it that is going on that leads you to feel part / not part of nature?  
Do you notice any difference in your relationship with nature when at work and when not at work?

### C. Your organisation and the natural world

In your opinion, what are the key issues with regard to its impact on nature?  
How do you feel about that?  
How do you know what its impact is?  
What do you think the organisation should do about it?

### D. General experience at work

Tell me about your experience of influencing your organisation's environmental decision-making  
What do you do?  
How do you feel emotionally about doing this work?  
Are you influencing policy/strategy or practice, or both?  
How do you think you are doing?

What is your desired outcomes re influencing org environmental impact?  
How does that compare to where things are now?  
How important is it to you to reach this goal you?  
How do you see these goal being achieved?  
What is helping and what is hindering progress towards your desired outcome/goal? (personal + organisational)  
How do you think barriers can be overcome?  
Would you say you feel optimistic or pessimistic with regards to the org in the future?

Are there ever times when things don't progress in the way you'd like?  
How do you react to that?  
What emotions come up for you?  
How do you deal with the emotions around that?

How do you feel about the role you have in influencing your org?  
How do you see your position in the org?  
How do you think you are perceived by others? How do you feel about that?

What are the main dilemmas or inner conflicts you face in your work?  
How do you experience that?  
How do you deal with the emotions of that?

How do you sustain yourself, what helps you to keep going in doing your work?

**D. Specific event**

Tell me about the event you would like to focus on.

What was the situation? What was the meeting about?

Who was involved?

What decisions (if any) were made?

What did you really want from the situation? What did you get?

How did you feel during this time? (emotions, feelings, physical sensations)

What thoughts were you having?

What was going on that triggered these responses for you?

What did you notice about other's emotions and expressed thoughts?

What kinds of things were your colleagues saying or doing, and how did you react?

Were there any views that were shared by you and others in the meeting? If so, what were they?

Were there any views that were not shared? If so, what were they?

How did you feel about that and how did you respond?

Did you change your thinking in any way? In what way? What led to that?

What do you make of the incident reflecting on it now?

**E. Mindful awareness**

How aware were you of what was going on within and around you?

Is there anything in the organisational environment that affects your capacity to be aware of what is going on within and around you?

How did you find attempting to notice what was going on whilst participating in the meeting?

Was your experience of this meeting different in any way to other meetings as a consequence of being asked to attend to body sensations, feelings and thoughts?

*[If relevant]* Does your mindfulness practice affect how you think and feel about these issues, or affect your experience in any way?

**At end**

Ask if interview was ok

Is there anything that didn't come up that they were expecting

Is there anything else they would like to add

APPENDIX 7 – Debrief consent form + email

CONTACT DETAILS

Participant Identification Number:

**CONSENT FORM**

**PROJECT TITLE : INFLUENCING PRO-ENVIRONMENTAL IMPACT OF ORGANISATIONS**

Name of Researcher: Nadine Andrews

**Please initial box**

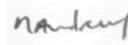
1. I agree to take part in the Debrief discussion.

2. I understand that my participation in the Debrief is voluntary and that I am free to withdraw at any time, without giving any reason.

3. I understand that any information given by me may be used in future reports, articles or presentations by the research team.

4. I understand that my name will not appear in any reports, articles or presentations.

5. I understand that the Debrief discussion may touch on personal issues for me. If any further work on these issues is needed, I understand the researcher cannot work therapeutically with me on these issues. However, if needed, they will help me locate appropriate sources of support and information.

<hr style="border: none; border-top: 1px solid black;"/>	<hr style="border: none; border-top: 1px solid black;"/>	<hr style="border: none; border-top: 1px solid black;"/>
Name of Participant	Date	Signature
Nadine Andrews	30/6/15	
<hr style="border: none; border-top: 1px solid black;"/>	<hr style="border: none; border-top: 1px solid black;"/>	<hr style="border: none; border-top: 1px solid black;"/>
Researcher	Date	Signature

**When completed, please return in the envelope provided (if applicable). One copy will be given to the participant and the original to be kept in the file of the research team at:**

HighWire Doctoral Training Centre, Lancaster University, Lancaster LA1 4YT  
Tel: 07977 515 977 • E-mail: [n.andrews@lancaster.ac.uk](mailto:n.andrews@lancaster.ac.uk) • Web: <http://highwire.lancaster.ac.uk/>

Consent Sheet 30/6/15

In this debrief I will:

- Summarise the theories I used to analyse the data and answer any questions you have
- Explain the general findings based on my interpretation of the data, and show you diagrams representing these findings
- Invite you to respond to this information, how does it resonate, where do you see yourself in this

## APPENDIX 8 - What happened to the research subjects?

This was not a longitudinal study but the debrief session taking place a year after the interviews afforded me the chance to find something out about their situation at this later point in time.

Rosemary's goal of completing the environment strategy had been delayed, and the organisational context was still one of high pressure but her motivational Hero Fulfilling Destiny story appeared to be holding strong.

Jay's organisational situation of ongoing restructures and job losses was still present and he anticipated it would become worse as further large cuts in spending were expected but he appeared to be coping well.

Ash had had his job changed within the council following restructure, and was no longer working on managing environmental projects. I was not so surprised by this, given the apparent 'inevitable decline' in salience of the 'deep green' identity.

Heather still presented as having relatively higher inner coherence and organisational congruence, and was focussing on making her personal life more congruent with her pro-environmental beliefs.

Hazel had left her job in the intervening period, having realised compatibility with that organisation and support from managers was not what she had thought it was. She increased organisational congruence as Heather had by choosing to work instead in a sustainability related job within the third sector, and reported feeling much happier working there.

Robin was continuing to make 'gradual improvements' within his organisation and seemed sufficiently satisfied with the challenge and achievements of the work.

## APPENDIX 9 – papers etc.

### Published papers or in press

Andrews, N, Walker, S, & Fahy K. 2016. Between intention and action: psychosocial factors influencing action on climate change in organisations. In Filho, W. F. (Ed) *Innovation in Climate Change Adaptation*. Springer

Andrews, N. 2017. Transformation, adaptation and universalism. *Global Discourse* (in press)

Andrews, N. 2017. Psychosocial factors influencing the experience of sustainability professionals. *Sustainability Accounting, Management and Policy* (in press)

### Conferences

- Association for Psychosocial Studies 1st annual conference, Preston UK, 17 Dec 2014
- Nature Connections, Derby UK, 26 March 2015
- Emotional Geographies, Edinburgh UK, 10-12 June 2015
- European Group of Organisational Studies, Athens Greece, 2-4 July 2015
- European Conference on Sustainability, Energy & the Environment, Bristol UK, 9-12 July 2015
- Leading Wellbeing research festival, Ambleside UK, 16-17 July 2015
- Society for Ecological Restoration, Manchester UK, 23-27 August 2015
- World Symposium on Climate Change Adaptation, Manchester UK, 2-4 Sept 2015
- Climate Psychology Alliance: Psychosocial research on human engagement with climate change, London 24 Oct 2015
- Association for Psychosocial Studies 2nd annual conference, Bristol UK, 29 June – 1 July 2016
- World Symposium on Climate Change Communication, Manchester UK, 23-24 Feb 2017

The following papers are included in conference proceedings:

Andrews, N, Fahy K. Walker S. 2015. Between intention and action: psychosocial factors influencing pro-environmental decision-making in organisations. Paper presented at 31st EGOS Colloquium, Athens, Greece

### Seminars

I have also presented my findings at:

- Nature Connectedness Research Cluster, Derby University 12 Feb 2014
- British Environmental Psychology Society, University of Sheffield 15 Sept 2014
- Sustainable and Ethical Enterprise Group, Manchester Metropolitan University 24 Nov 2015
- Sustainable Tourism undergraduate student group, Manchester University 4 Dec 2015
- Sustainability Responsibility Plus network, Lancaster University 11 Feb 2016
- Mindfulness Research Network, Manchester University 8 March 2016