Risking it for Coal

Business leaders’ attitudes to climate change

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Thesis submitted in fulfilment of the requirements for award of the degree of Doctor of Philosophy

University of Newcastle, September 2015
Declarations

Statement of Originality

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.

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Abstract

This thesis explores business leaders’ attitudes to climate change. Situated in the Hunter Valley of New South Wales, Australia, participants were interviewed about their views on climate change and climate mitigation policies. As a major coal producing hub and home to the world’s largest coal port, the Hunter Valley is a fitting case study for a nation which has long seen its economic success as inextricably linked to the coal industry.

Positioning climate change within Beck’s risk society (1992; 1999; 2009), the thesis explores Beck’s key proposition; that the success of modernisation has turned on humanity, and that this realisation has fundamentally challenged our social institutions. As a result, Beck has argued that we are facing new networks of allegiances. Formulated around our relationship to the particular risks of the second modernity, these allegiances go beyond traditional ‘class’ conflicts and boundaries. Yet Beck has been criticised for discounting the resilience of these power relations, which become difficult to trace in the absence of his own theory of practice.

In order to resolve this tension, the thesis turns to Bourdieu’s (Bourdieu and Wacquant 1992; Wacquant 1993) concept of the field of power as a means of understanding the relational aspects of how participants are responding to climate change. While many participants show indications of a growing awareness and concern about climate change, their ability to respond to these issues is severely limited by a doxic understanding of the economy.

Over the period of research, the centre oriented Labor government faced a number of hurdles attempting to implement a price on carbon. While they eventually succeeded in implementing a carbon tax in 2012, this has now been disbanded by the conservative coalition of the Liberal and National parties. By documenting business leaders’ attitudes to climate change over this period, the thesis offers a unique perspective of where business leaders’ converge, and vary, in their attitudes to climate change, and how this impacts more broadly on attempts at climate mitigation.
Section One: Introduction and Overview

Chapter 1: Introduction

The research in this thesis began at a time when climate change was at the centre of an immense political struggle in Australia. After years of campaigning, activism and lobbying, the environment movement was on the crest of a wave; the push for action on climate change looked like it would finally come through. After much hesitation, the centre Labor government, led by Julia Gillard, was looking to implement a price on carbon. Writing now, in 2015, much of what followed is history. The carbon price was briefly implemented, and then removed by the conservative coalition government, led by Tony Abbott, in 2014. The push back – a combination of conservative forces and a massive public campaign from greenhouse intensive industries, aligned with weak political will from Labor and a media intent on emphasising controversy when it came to climate science – was too strong to maintain what was really only the beginning of a policy response to climate change. This thesis tells part of that story.

Only a few years earlier, the momentum for action on climate change had begun to grow. Labor had been elected in 2007 with Kevin Rudd at its helm, and climate change was at the fore of its agenda. This appeared to be a breakthrough moment for climate policy (Rootes 2008). One year later, I began my honours thesis which was the precursor to this research: a smaller scale, qualitative study on how business leaders in the Hunter were responding to climate change. The results were inconclusive. There appeared to be general support for a price on carbon, but only within the limitations of a growth economy. Given that there were no political proposals which advocated a steady state economy or – worse – a reduction in growth, this small ask seemed possible. For a moment, under the centre-right leadership of Malcolm Turnbull, there even appeared to be political consensus. But this consensus was tenuous. Turnbull was removed as leader of the coalition in December 2009, and Kevin Rudd’s removal was not far behind (Rootes 2011a; 2011b).

Kevin Rudd’s first action as Prime Minister of Australia was to ratify the Kyoto Protocol – the global agreement to take action on climate change – a long standing demand of the environment movement which ended what had previously been seen as the biggest political block to the emergence of climate protection in the country (Pietsch and McAllister 2010: 219). Rudd was quoted echoing the words of Al Gore, saying that climate change was the biggest ‘moral challenge’ (Eckersley 2013: 391) of our time. His government had developed the Carbon
Pollution Reduction Scheme, and had pinned its success to that of the 2009 international climate talks in Copenhagen (Taylor 2009a). As we now know, this was a fateful mistake. The talks fell apart at the same time as Rudd was dealing with a global financial crisis, and under pressure from the mining industry about his government’s proposed mining tax, his government was unable to get the CPRS passed by a hostile Senate (Crowley 2013: 372-380). As a result, support for his leadership plummeted; in mid-2010 Julia Gillard was elected by the Labor caucus as the new leader, and therefore new Prime Minister of Australia (Curran 2011). Gillard quickly went to the polls in August 2010 declaring that she would not implement a carbon tax; yet this was overturned when Labor was forced to form a minority government with the Greens’ support. The Greens insisted on the development of a carbon price (Chan 2012). The research in this thesis was carried out in the lead up to the implementation of the carbon tax.

Much has been written about the role of the fossil fuel industry in lobbying against measures to mitigate climate change. As John Urry points out, this began early; from the outset of the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988, the Global Climate Coalition was created by a group of energy companies in order to combat the scientific basis of climate change and any policies that may be put forward to mitigate it (Urry 2011: 20). In Australia, Guy Pearse (2007) has controversially exposed the close relationship between the industry and the conservative Howard government, which resisted action on climate change for the entirety of their government’s reign. But it was not only governments which responded to the fossil fuel lobby. Between 2006 and 2012 concern about climate change in Australia began to drop away (Lowy Institute 2014). Clearly, the industry and conservative campaigns have had an effect on how we respond to the issue.

These factors reveal that the machinations which have prevented action on climate change are clearly outside of the environmental framework. They are at once political, economic, social, cultural and historical; such a cross section of factors makes sociology an obvious place from which to investigate the problem. There is little doubt that our lack of action on climate change is deeply rooted in our social institutions; as Ulrich Beck (1994; 1992; 2009) had predicted, they are flailing, unable and unwilling to transform themselves in response to a wide spread, incalculable risk. For governments, the threat of climate change has not yet outweighed the electoral risk of potential increases to the cost of living; for industry, it does not yet outweigh the benefits of exporting cheap coal. The long term scale of preventing climate change is not accounted for by the short term scales of politics and economics, and the leadership required to overcome this problem is chronically absent from mainstream debate. In this space, Beck (1997)
saw an opportunity for a new political dynamic to take shape; a subpolitical coalition of individuals and institutions to provide such leadership. These may include private companies, business leaders, non-government and even state-sponsored organisations coming together to provide the solutions to the risks created by the successes of modernity. Indeed, he argued that the ‘business camp’ may ‘split’ in order to fulfil such a role (Beck 1995a: 28). The Hunter region seems a perfect place to begin to look for such a split.

As a region with a prominent coal industry, the Hunter is in many ways at the forefront of the climate change debate. Newcastle, the region’s main city, is home to the world’s largest black coal exporting port, exporting coal from 35 mines in the broader region (Australian Coal Association 2009). Indeed, the city was named after Newcastle in the UK which was also a coal producing town; many of the city’s suburbs and street names are also derived from Newcastle in the UK. One only has to open the Newcastle Herald – the local paper – to read of the ongoing debate between environmentalists and the coal industry over the value of mining to the region (Harris 2015b; 2015a; Kelly 2015b; 2015a). Growing concern about climate change, mining related health issues, and the ongoing competition of the coal industry with rural production have added to the negative view of the industry, although concern for employment opportunities has somewhat tempered these issues (Connor et al. 2004; Connor et al. 2008). Indeed, keenly aware of such issues, in 2010 the NSW Minerals Council launched a survey of community groups and other stakeholders that was clearly aimed at creating a power map of the organisations in the region (NSW Minerals Council Ltd. 2010). At the same time, a number of newer initiatives from business, local government councils and the research sector appear to signal an attempt to assist the region in making a shift towards a low-carbon economy (Richardson 2009; Dinneen 2009; Lyons 2010). If, as Pearse (2009) has argued, the coal and mining industries occupy an important, but misplaced, priority in the national consciousness, the Hunter region might be seen as a microcosm of this phenomenon. Arguably, the dependence of the national economy on the export of natural resources may be felt more deeply and personally by those in the region.

The primary purpose of this thesis is twofold. In order to understand the ways in which the climate change debate has been shaped through the period of the Labor governments, it provides a case study of business leaders in a region which is very much at the centre of the issue. The second purpose is to make use of the dynamic frameworks offered by sociology to do so. As is discussed in Chapter 2, ‘Climate Change, Social Change’, sociology has not always dealt easily with the task of discussing environmental problems. This task is still incomplete. While
there are numerous sociological insights into the impact of particular social factors – such as those mentioned above – on the environment, these perspectives are often narrow, with a tendency to sideline the environmental issues in favour of a purely social reading. Thus we see a proliferation of media and cultural analyses, which do not include the physical, environmental impacts of their findings. Or, as we see in mainstream Western politics, report after report on the economic impacts of climate change with only a passing mention of the dramatic biodiversity losses already being experienced as a result of climate change. To be fair, these pieces of research themselves are often driven by budgetary and institutional pressures; to produce win-win solutions, to find industry support for research funding, to limit analysis to a particular word count, theorem or, ideological framework. In writing a thesis that is not limited by these constraints, then, it seems a responsibility to make some effort towards centralising the environment in environmental sociology.

At the time of putting the finishes touches on this work – mid-2015 – the impact of climate change is looking more immanent and dangerous than ever before. Social media feeds of those networked to the environment movement, science and politics, are filled with reports of dramatic events: the tundra is beginning to melt; glaciers are in retreat; each month, season and year are reported as the ‘hottest on record’ (Randall 2015; Hannam 2015; Australian Bureau of Meteorology 2013). Social movements, with their own internal pressures to stay positive for fear of losing support, have remained relatively positive. Buoyed by movements from China away from coal, a growing divestment campaign, and the support of local communities in conflict with resource companies over land use, they continue to sound the end of coal. While it may be missing the positive outlook of these movements, this research was certainly carried out with similar hopes. There is no credible scientific research which argues that climate change can be mitigated to safe levels – those at which we do not experience feedback loops – if the burning of coal for electricity continues to grow. This is not an argument made in this thesis; it has been debated ad nauseam elsewhere – this assumption is at the centre of this research. If business leaders, for their part, are able to activate their leadership roles by creating and investing in new industries which are not dependent on fossil fuels, then, as the ecological modernists argue, we may overcome the problem. If they do not, however, then the planet, the biodiversity, the flora, and eventually our social systems are at grave risk. This is, as discussed in Chapter 3 ‘Methodology’, the reason that business leaders are the subject of this research.

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1 For the scientific research supporting these claims, see Cory et al. (2013); Ferrigno et al. (2006); Cook et al. (2005); Kunz et al. (2012).
The key contribution the research has to make is its dual focus on issues that are not popularly investigated in sociology; by understanding how business leaders are responding to climate change it adds to both our knowledge of the middle and upper classes as well as how they relate to environmental issues. Not only are sociologists uncomfortable when dealing with the environment, we are far more comfortable with studying people who are disadvantaged than those who are in power. Chapter 4, ‘Power in the Second Modernity’ addresses this difficulty in the context of social theory. While Beck (2005) centres his theory of the second modernity around risks – many of which are environmental – his apparent distaste for a critical analysis of power, and lack of empirical data, limits the utility of his risk society thesis at that level. Beck conceives of risk primarily as a threat to current forms of power, and his writing regularly skips ahead to a time when such risks have brought about the downfall of our current systems of power. Like many environmentalists, he argues that this transformation is taking place now. Yet in doing so he appears to ignore what McCright and Dunlap (2010) have called anti-reflexivity; the processes by which current structures of power refuse to respond to risk. For this task, then, Bourdieu’s field theory offers a means of explaining many of these dynamics. There is little doubt that business leaders are in a powerful position when it comes to climate policy. Few have the social networks and economic capital to influence policy in such a way. In order to understand the environment – as it is, affected and impacted on by people – we need to understand power. The thesis therefore makes use of Beck’s risk society (Beck 2009; 1999; 1992) and Bourdieu’s field of power (Bourdieu and Wacquant 1992; Wacquant 1993) as a means of analysing how these business leaders respond to climate change.

Starting with Chapter 5 – ‘Non-knowing and ambivalence...’, the data analysis chapters of the thesis begin by looking at what is likely the most highly debated aspect of climate change; investigating participants view of the science. The extent to which participants agree with the science of climate change is central to their attitudes about how we should respond; if they are engaged with the science, presumably, they will be likely to agree to major policy changes, and possibly be taking action within their own businesses to reduce greenhouse gas emissions. Yet the science has been vigorously attacked; the extent to which participants take on any doubt as a result of this is also likely to damage their certainty about what should be done.

The place of science as a central, authoritative source of knowledge has, in recent times been challenged, as Bruno Latour reports with shock in his book An inquiry into modes of existence (2013). Beck had been arguing both that we are and that we should be – in the way few scholars can get away with – sceptical of science for some time (Beck 1995a: 89-110). Interestingly,
however, he saw such a view as supporting not only lay systems of knowledge, but also environmental preservation. Risk society, as he saw it, would create a space in which more democratic forms of politics would limit technology and science, eventually harnessing them for more responsible lifestyles. If anything the arguments around climate change show the limitations of the categorical view that science and technology are necessarily opposed to ‘nature’ and environmental protection, for in this chapter we see that scepticism about science, heretofore supported by Beck, has become a barrier to acting on climate change.

Ecological modernisation is one solution which does not necessarily depend upon a positive reading of the science of climate change, although a strong agreement that climate change is a problem should accelerate it as a political program. Based on the proposal of a ‘win-win’ situation whereby environmental impacts are decoupled from economic growth, ecological modernisation is the most popularly advocated scenario in the public debate about climate change. Maintaining a capitalist system of organisation, ecological modernisation entails shifting the economy away from a resource, energy intensive system towards a sustainable economy whereby energy is decentralised and production reduced in favour of a service economy. It implies a shift from consumption of products to consumption of services. Such a shift would be advanced by technological progress, in most cases supported by transition plans from national – and potentially global – governing bodies. This is the catch call of both the mainstream environment movement and international Green Parties, often framed as a ‘just transition’. The extent to which participants foresee such a change as both desirable and possible is the subject of Chapter 6, ‘...Limits to Ecological Modernisation’. It is only part of the story to reveal here that they are not particularly enthusiastic. The remainder of the thesis examines why this might be the case.

Making use of Bourdieu’s heuristic of the field, Chapters 7 – 10 investigate four different aspects of the field of power and the ways in which participants’ comments can be understood as being influenced by these. Chapter 7, ‘It’s the economy’ looks at the way participants construct the economic field. This, it is argued, is a crucial framing device for the discussion about how to respond to climate change. While the research was pitched as being about ‘business attitudes to climate change’, the vast majority of interviewees ended up discussing the carbon tax and the economy in much more detail than the issue of climate change itself. The doxic nature of neoliberalism is revealed in participants’ presumptions. This shifting of frames, deliberately allowed through the semiformal style of interviewing, reveals severe limitations on the extent to which social change – and in particular any change to a growth economy – is accepted by
participants. This goes some way to making sense of their resistance to ecological modernisation.

Yet ecological modernisation argues that a growth economy can be maintained; a commitment to the growth economy does not seem sufficient an explanation for participants’ reluctance to respond to climate change. Chapter 8, ‘Life. Brought to you by mining’ draws out a unique feature of how the economy is understood by participants, arguing that their views about how central coal is to the economy go beyond simple economics. While the economy is seen by participants as fundamentally dependent on coal, here it is suggested that the coal industry has activated its various forms of capital to influence the field of power in its favour. This chapter traces the ways in which the coal industry has encouraged this view, particularly in coal mining regions such as the Hunter, and the ways participants, for the most part, reflect such a view. It argues that, contrary to the claims from Beck that ‘legitimatory capital’ (Beck 2005: 236-244) cannot be transferred from economic, cultural or social capital, the mining industry has successfully done so. The extent to which participants express the idea that the continuation of the coal mining industry in the region is inevitable goes well beyond the economic rhetoric of the industry’s importance. Many appeal to the long history of coal mining in the region, and imply that the very presence of coal means that it must be mined. These views, it is argued, threaten to historicise the economy of the region, as well as locking in the risks of climate change.

There is a strong argument to make that the research presented here offers a microcosm of the national debate about climate change. This can be seen by comparing the national political debate to the regional. The carbon tax debate raged across the nation under the Labor-led governments; it was famously vitriolic (Spash and Lo 2012). Participants in this research show a remarkable affinity with the vocal conservative forces against the tax. As myself and Terry Leahy have noted elsewhere, this was a change even from the preliminary research I had carried out for my honours project (Bowden and Leahy 2016). While previously business leaders in the region presented conditional support for a price on carbon, the research in this thesis finds overwhelming opposition, even from those who wanted action on climate change. This, as discussed in Chapter 9, ‘It’s so political’, was framed as coming from a position whereby participants could not trust the Labor government. This chapter makes use of the field of power to explore the alignment of conservative commentary on the carbon tax and the Gillard government with participants’ opposition to the policy. Participants here mobilise a popular discourse of mistrust of government to then specifically identify the Gillard Labor government
as untrustworthy and the carbon tax as a poor policy made in a rush to secure government. It is largely for these reasons, they claim, that they do not support the policy.

In their discussion of the Labor Party, participants are also scathing of the Green Party. Their attitudes to the Green Party, environmentalists, and climate scientists are detailed in Chapter 10, ‘The Green Elite’. Participants speak of the Green Party and environmentalists as extremists; elite and privileged members of society who are attempting to remove the right of others to accumulate material wealth. This opposition clearly fits with Bourdieu’s observation of the power struggles between cultural and economic capital. While participants attempt to discredit those they see as high in cultural capital – climate scientists, progressive politicians, environmentalists – they concurrently attempt to legitimate material and economic priorities. It is clear from this discussion, perhaps more than any others, that while participants may have differing views about climate change in general, the vast majority of them are extremely critical of those who would offer alternative forms of social organisation. Climate scientists, too, are lumped in with environmentalists for providing the evidence that such a change might be necessary.

Yet overall participants clearly do not see that climate change – even if it is real and caused by humans – requires a great deal of social change. This is reflected, if not throughout the research, then with distinct clarity in Chapter 11 – ‘Temporal considerations’. Here we see that the vast majority (although not all) participants deviate from the more general population by articulating an overwhelmingly positive vision for the future. They argue that if there is a problem, future generations will be able to solve it, and that, despite their reservations about renewable energy sources at the moment, there still might be a technological breakthrough that will assist this. While other research indicates that apocalyptic views of the future are common, especially while discussing environmental problems, the vast majority of participants in this research remain positive about the future.

This thesis traces the links from the individual to institution and region. Framing climate change as a particular ‘risk’ of the second modernity, it seeks to understand the extent to which the dynamics of risk society have permeated the way participants understand the issue. It also makes use of Bourdieu’s conceptualisation of the field of power as a means for tracing the paths between individuals, institutions, the region and the economy. In doing so it is hoped that the thesis will add to our understanding of the ways in which climate change is socially constructed by those in positions of relative power, and possibly offer some insights into where the leadership for action on climate change might arise.
Chapter 2: Climate change, social change?

The very nature of climate change means that research into the issue cuts across a range of disciplines. As a scientific problem, the cause of climate change has largely been settled - a significant increase in greenhouse gas emissions following the industrial revolution have led to an increase in global average temperatures which is likely to cause major changes to our climate system, resulting in increased extreme weather events, increased mobility of disease, threats to food supply and species extinction (IPCC 2007). The solutions to these problems, from cutting greenhouse gases, to implementing new technologies which may attempt to absorb the gases elsewhere, are still under debate, as are the details about modelling and the predictability of its effects in particular regions (see IPCC 2014 for a summary). The social sciences, while perhaps a little slow to come forward in earlier years (Lever-Tracy 2008a), have picked up a great deal of interest in climate change in recent times. Informed by a range of theoretical developments (which are discussed in greater detail in Chapter 4), sociologists, geographers, anthropologists and political scientists in particular have investigated a broad range of issues related to how our social, cultural and political organisations – and individuals – have responded to climate change. Indeed, the current interest is so prolific that it is not possible to make note of all of the developments here; rather, this chapter will focus on the key research insights that have informed the present research. These insights relate both to broad political responses – including those of lobbyists and environmentalists – and to perceptions of understanding and concern about climate change. Research on climate change in the social sciences has been informed by, and informed, new perspectives on the dynamics of social change in so-called ‘late’ modernity. Interestingly, much of this work, while outlining the potential disasters that climate change might cause, gives an overwhelmingly hopeful and positive tone to the discussion (Leahyet et al. 2010).

The work of Ulrich Beck has been highly influential on the ways in which sociology has engaged with climate change. Through the lens of risk society, Beck’s earlier work on genetic engineering, pollution and nuclear power (Beck 1995a; 1995b) brought the environment into the social, and began his lifelong process of examining the ways in which societies have – or have not – responded to the problems arising, as he argues, as a direct result of the ‘success’ of modernity. Although present in this earlier work (Beck 1995a: 28), it was not until later that Beck began to systematically explore climate change (Beck 2007; 2009: 81-108; Beck et al. 2013; Beck 2014: 81-108).

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2 Beck’s theoretical framework is discussed in greater detail in Chapter 4.
arguing that global risks challenge national frameworks of analysis and require a shift to a cosmopolitan outlook. This project remained incomplete at the time of his death in 2015, the latest development being a special sub-section of *Current Sociology* (2015) looking at the concept of ‘emancipatory catastrophism’ – uncovering what he calls the ‘hidden emancipatory side effects’ (Beck 2015b: 78) of global risk. In many ways, Beck’s arguments are as much about the positioning of sociology as they are about climate change. By encouraging sociologists to move away from what he called ‘methodological nationalism’ and to look at the potential changes from climate change that may be more transformational – as opposed to catastrophic – Beck was arguing for a sociology which worked across nations, and investigated *all* of the dynamics of social change that might come about as a result of risk.

Other prominent sociologists have also argued that the risk of climate change is creating a movement towards social change and greater democratic involvement. Manuel Castells (1997) has argued that the ‘network society’ – brought about through technological change – has increased the power of corporations at the expense of national governments, but that this same dynamic has also allowed social movements to increase their level of understanding about the environmental problems this has caused. He has outlined how these developments have influenced policy debate on the issue of climate change, claiming that ‘a multi-pronged movement made up of activists, scientists, and celebrities, acting on the media and networking via the internet, has transformed the way we think about nature and about our place on the planet’ (Castells 2009: 337). This positivity is perplexing given that he also states that climate policy is ‘woefully inadequate to this point’ (Castells 2009: 337). It is possible, however, that Castells’ emphasis on the changing dynamics and influence of communication technologies in creating and enabling these social movements leads him to overemphasise the extent to which ‘the way we think about nature’ (Castells 2009: 337) has changed. On the other hand, Castells (1996) also argues that the globalisation of neoliberalism and the dominance of corporations in networking technology has greatly increased the power of multinational business, even over nation-states.

Anthony Giddens agrees with Castells that our thinking has changed, and that we are now more concerned about the environment, but he argues that we are not taking action. He inexplicably chose to name such a phenomenon after himself, calling it the ‘Giddens’ paradox’ and explains that ‘since the dangers posed by global warming aren’t tangible, immediate or visible in the course of day-to-day life, however awesome they appear, many will sit on their hands and do

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3 See (Beck 2015b; Asayama 2015; Mao 2015; Vara 2015; Shim 2015; Blok 2015; Han 2015; Beck 2015a)
nothing of a concrete nature about them’ (Giddens 2009: 2). Giddens’ work *The Politics of Climate Change* is a pragmatic attempt at finding solutions to climate change that can be supported within a social democratic framework (Leahy et al. 2010; Thorpe and Jacobson 2013). In this work, Giddens joins the ecological modernisation school, emphasising the importance of ‘economic convergence’ with low greenhouse gas intensive technologies and asking the hopeful question: ‘reducing emissions might conflict with the competitiveness of businesses, but could that relationship perhaps be turned around?’ (Giddens 2009: 9).

A more sobering discussion is offered by John Urry (2011) in *Climate Change and Society* whereby a number of likely scenarios are presented as potential responses to climate change. In contrast to other writers, Urry’s work ends with the idea that we are likely to be facing disaster:

> My final claim is that there is a strong probability that nothing can be done except to prepare for various catastrophes. Unless some remarkable and unlikely system reversals take place in the extremely near future, sociology’s role will lie more in the field of disaster studies. These reversals of carbon worlds were argued for in the 1970s but never materialised because of neoliberalisation and the power of the carbon military-industrial complex. (Urry 2011: 166)

Urry (2014) convincingly argues that the development of intensive, large scale energy infrastructure, dependent on fossil fuels has severely limited our ability to respond to climate change. The research presented in this project is much more in line with Urry’s analysis than those of other prominent sociologists. Participants in the research do not offer solutions, or seem to agree with the simpler solutions of ecological modernisation; nor do they propose a radical overhaul of our social institutions as suggested (as being inevitable) by Beck. While many sociologists point to the potential positive outcomes associated with climate change, and the opportunity afforded by the necessity of change, the narrative of climate change policy in Australia shows that there is a much stronger resistance to low carbon futures than most of these analyses – with the exception of Urry – allow. Indeed, as Bulkeley (2001) has shown, the debate about climate change in Australia has been very precisely framed around our particular position in the world as a coal exporting nation, with the desire to maintain that role. Thus while Beck’s risk framework is a useful means of understanding climate change in late modernity, the research presented here makes use of other thinkers and empirical research as a means of locating participant responses in the broader research.
2.1 A new (ecological) citizenship

The globalised problems faced in a risk society have led a number of authors to rethink the definitions and meanings of citizenship (Flynn, Bellaby and Ricci 2008: 767). For some, like Bell (2002; 2005) and Hailwood (2005), liberal citizenship provides a ‘reasonableness’ which gives ‘nature’ a value and promotes the protection of the environment. Others, such as Andrew Dobson (2003; 2006), have argued that the processes of globalisation and the environmental challenges we now face require a re-conceptualisation away from the idea of citizenship involving rights and towards an emphasis on obligations. Dobson has identified ‘ecological citizenship’ as a potential solution to these issues. Based on the concept of justice, ecological citizenship argues that some people have a larger than ‘fair share’ of ‘ecological space’ (Dobson 2003; 2006). Ecological citizenship is indicated by a willingness to reduce this footprint (Dobson 2006). In addition to disagreements about whether and how different it is from other types of citizenship – and whether it constitutes citizenship at all (Valdivielso 2005: 244-245; Hayward 2006b; 2006a) – the concept of ecological citizenship has been criticised for its focus on individual action at the expense of analysing social structures and constraints (Latta 2007). As Sáiz argues:

Surely the way in which citizenship is structured as well as the degree to which citizens can structure is critical. What are the conditions under which environmental or ecological citizenship is engendered? What are the economic, social and political obstacles – collectively – to this engendering? (2005: 176)

Empirical research supports the concern about the efficacy of individual behaviour. Wolf, Brown and Conway (2009) carried out empirical, qualitative analysis of ecological citizenship in Canada with participants who largely fit the conception of ecological citizenship. Although they had both the capacity and identified the need to reduce greenhouse gas emissions, these participants mostly made changes to their consumption patterns that would not affect their lifestyles, rather than those which would be most effective in reducing their emissions (Wolf et al. 2009: 518-519).

International surveys from the US, UK and Australia over the past decade support the finding that, far from taking on individual acts of ecological citizenship, most people want governments to do something about climate change. While there was much made of a downward trend in relation to the belief that climate change is caused by human activity in 2010 (Saad 2009: 1; Hanson 2010; Jowit 2010), more recent surveys show a revival of concern.
In Australia, levels of concern were at a high in 2006, when 68% of Australians said that climate change\(^4\) was ‘a serious and pressing problem [and that] we should begin taking steps now even if this involves significant costs’ (Lowy Institute 2014). This dropped to its lowest point in 2012 of 36%, although it should be noted that over this time, the answer ‘the problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problems gradually by taking steps that are low in cost’ went from 24% to 45%, suggesting that although concern was less urgent, it had not entirely disappeared (Lowy Institute 2014). In 2013, however, concern about climate change was on the rise again, with 40% opting for the more ambitious answer involving ‘significant costs’, and this rose again to 45% in 2014 (Lowy Institute 2014). In the same year, a strong majority of respondents – 63% - said the Australian government ‘should be taking a leadership role on reducing emissions’ (Lowy Institute 2014).

In the UK, concerns were also quite high in 2006, with 82% of respondents to a national survey indicating they were ‘very’ or ‘fairly’ concerned about climate change (Capstick et al. 2015: 17). This dipped to 60% in 2013 and rose slightly in 2014 to 68% (Capstick et al. 2015: 17). Likewise, 91% of respondents agreed that climate change was happening in 2006, a figure which fell to 71% in 2013 but was back up to 89% in 2014 (Capstick et al. 2015: 18). 48% of respondents believed that climate change is ‘partly caused by natural processes and partly caused by human activity’ while 37% said that climate change is ‘mainly or entirely caused by human activity’, up from 31% when the question was first asked in 2010 (Capstick et al. 2015: 19, original emphasis).

Data from the US shows a smaller variation – although it has not been over as long a period of time. National surveys there in 2008 found 57% of respondents thought climate change is caused by humans, dropping to 46% in both 2012 and 2013, but rising to 52% in 2015 (Leiserowitz, Maibach, Roser-Renouf et al. 2015: 7). By contrast, 32% thought it was a natural environmental change in 2008, rising to a high of 37% in 2012 and returning to 32% in 2015 (Leiserowitz et al. 2015: 7). Levels of concern were at a high in 2008 – with 62% ‘worried’ or ‘very worried’ in 2008 compared to 52% in 2015 (Leiserowitz et al. 2015: 9).

While there have been some variations in the levels of concern about climate change, polls consistently indicate that citizens want governments to implement policies to reduce greenhouse gas emissions. At the same time, willingness to pay more for various environmental measures is low across the three countries. In the US, 22% of people support the government raising taxes on electricity while 78% oppose it (Saad 2009: np); 40% in the UK are willing to pay

\(^4\) Called ‘global warming’ in this, and the US poll discussed below.
more for environmentally friendly products, while 60% are not (Ipsos MORI 2010: 20) and in Australia, 19% were willing to pay $21 or more a month for their electricity bills, compared to 33% who said they would not pay anything (Hanson 2010). While there are difficulties in making direct comparisons with these questions, the overall trend is indicative, and has been consistently supported in other research from 2000 onwards (Dietz, Dan and Shwom 2007; Jagers 2009). People are expecting governments to implement policies, but do not want to pay for them. Presumably, then, it would be companies and governments who ultimately pay for measures to reduce greenhouse gases.

If the opinion poll data can be read as indicative of support for government action, much of the qualitative analysis of the general public’s response to climate change is not particularly hopeful in its interpretation. While earlier studies explored levels of public knowledge, more recent qualitative analysis has explored the complexity of responses, revealing that even those who believe climate change will have a dramatic impact on society do not feel as though they can do anything about it, if indeed they want to at all.

2.2 Knowledge, concern, action?

A major problem with climate change is the ability to communicate the combination of our understanding of how greenhouse gas emissions work, and the impacts of their dramatic increase. Early work from social scientists sought to gauge the level at which the public understood these issues, as well as how much climate change concerned them. Perhaps not surprising for the time, Dunlap’s 1998 survey of understanding and attitudes to climate change in six nations found that the issue was often confused with ozone depletion, and was seen as less important than the latter, as well as ‘rainforest destruction and both water and air pollution’ (Dunlap 1998: 487). Similar findings had been discovered in the U.S. in 1994, with respondents regularly confusing climate change with ozone depletion, and identifying a very broad – often unrelated – range of causes for the problem/s (see Bostrom et al. 1994: 966 for the list of causes identified; this is also discussed in Read et al. 1994). Such research often reflected the view that ‘the effectiveness with which society responds to [climate change] depends on how well it is understood by individual citizens’ (Bostrom et al. 1994: 959). This is known as the knowledge deficit model (Bulkeley 2000: 313; Kahlor and Rosenthal 2009: 381; Stoutenborough and Vedlitz 2014: 1-2), or the ‘ABC framework’, whereby ‘A’ stands for attitude, ‘B’ stands for behaviour, and ‘C’ for choice’ (Shove 2010: 1274). However, while understanding the science of climate
change is incredibly important, a great deal of research has found a broad range of other factors work to influence how people respond.

Bulkeley’s research – also carried out in Newcastle, NSW – found that ‘public understandings draw not only on scientific information, but also on local knowledges, values and moral responsibilities for future and distant environments and societies’ (2000: 315). Echoing the aforementioned research, she also found a common confusion between ozone depletion and climate change, yet at the same time many participants in her study reflected a deep concern about the human impact on the environment. Following from this, Bulkeley (2000) argues that scientific understanding need not be present in order for people to be concerned about practices that damage the environment. By contrast, other research has found that even when people are knowledgeable about climate change, they may not necessarily be concerned (Kellstedt, Zahran and Vedlitz 2008).

A broad range of literature has sought to identify the demographics of those more – or less – concerned about climate change. In the US, Shao et al. found that ‘women, blacks and Hispanics are more likely to view global warming as a very serious problem than their counterparts’ (2014: 130). Others have found that people over 65, and men are among the most sceptical, as well as those with lower concerns for the environment (Whitmarsh 2011: 691).

Tranter has been tracking the demographics of support for environmental issues in Australia for some time, with extensive surveying showing that environmental concern is correlated ‘with an overrepresentation of highly educated, cosmopolitan, inner-city postmaterialists’ (Tranter 2013: 402), and although social class is only a weak indicator, the type of work and the position a person holds does influence whether or not a person is likely to support environmentalism or be concerned about the environment (Tranter 1996: 72).

Partisan orientation has consistently been a predictor of concern about climate change (Borick and Rabe 2010; Dunlap and McCright 2008; Fielding, Head, Laffan et al. 2012; McCright and Dunlap 2011a; 2011b; Shao et al. 2014; Tranter 2013; 2011). This body of research suggests that those who are more supportive of progressive parties – such as Labor and the Greens in Australia – are also more likely to care about climate change. Yet it is also common to find a disconnect between the stance of political candidates on environmental issues and that of their constituents. In 1999, Australian Labor Party candidates were found to be more willing to support an increase in taxes to preserve the environment than their constituency (Tranter 1999: 338). Data collected between 2010 and 2012 also found that Greens and Labor candidates were
more concerned about climate change than their respective constituencies, while Liberal and National partisans were considerably more concerned than their representatives (Tranter 2013: 409). Such results support the concern that climate change has become seen as being part of an elite discourse (Beck 2010a: 254-255). As McCright and Dunlap (2011b) have argued, the partisanship of the debate has a negative effect on climate change policy, as polarisation leads to the alienation of constituents who disengage from the discussion.

In addition to partisanship, personal values have been found to be a strong indicator of whether people are likely to be concerned about climate change. Hulme (2008) explores the ways in which the climate has previously been a source of fear in previous centuries, which was eventually resolved ‘through the rationalisation of the causes of weather extremes and through acclimatisation to tropical climates’ (Hulme 2008: 11). He argues that our understanding of climate change needs to be read as a cultural phenomenon, with an as yet unknown future which may not necessarily be catastrophic (Hulme 2008). Following on from this, Bellamy and Hulme (2011) use cultural theory to categorise values associated with climate change under four ‘ways of life’ – fatalistic, hierarchical, individualistic and egalitarianism. They found that those with a more egalitarian outlook were more concerned about climate change, while those displaying fatalism were significantly less so (Bellamy and Hulme 2011: 54). This led the authors to argue that ‘fear does not engage people but is rather counterproductive’ (Bellamy and Hulme 2011: 59), and that accounts of the more dangerous impacts of climate change worked to disengage people from the debate about climate change. This view has been supported by anthropological research, with Milton (2008) arguing that it is difficult to motivate the public when the problem is presented as apocalyptic.

However, research on public attitudes to climate change in Australia has found that people themselves predict apocalyptic futures, but do not envision that they have the power to do anything about it, and as such are unwilling to engage in politics or even just vote for the Greens (Gow and Leahy 2005). Because of this, in line with Urry, Gow and Leahy (2005) argue that we may well expect an apocalyptic future. This research is built upon by Leahy, Threadgold and myself (2010) drawing on more recent data from high school students and business leaders in the Hunter. We found that while many people foresee dramatic, apocalyptic impacts on the environment, they are also unwilling to make behaviour change, or support policies which would encourage behaviour change. A similar disconnect between knowledge and action about climate change was found by Norgaard (2006; 2011). Norgaard’s ethnographic study, carried out in a

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5 The latter set of data coming from my own research for honours.
Norwegian village over 11 months, found ‘cultural denial’ to be a prominent response. This involved the collective practice of keeping disturbing knowledge at a distance, focussing on the past rather than the future, and emphasising Norway’s reputation as a socially progressive state (Norgaard 2006: 8-10).

Some see the problems of understanding climate change as one of communication. Inspired in particular by the work of linguist George Lakoff, whose popular text *Don’t think of an elephant* (Lakoff 2005) focussed on how to effectively frame environmental messages around values, these thinkers focus on the messaging and public discourse around environmental issues. This literature has looked at the role of imagery and emotions on perceptions of the risk of climate change, with a particular focus on how the issue is represented in the media. To that end, Boykoff has carried out extensive work looking at the way media norms function to confuse the issue of climate change (Anderegg, Callaway, Boykoff et al. 2014; Crow and Boykoff 2014; Boykoff 2011; Boykoff and Boykoff 2007). Carvalho has argued that in the UK media, there is a ‘general tendency ... to stay inside the parameters of free-market capitalism, industrialism and neoliberalism’ (Carvalho 2009: 491), seriously limiting the breadth of debate as to how climate change might be solved. On the other hand, Whitmarsh (2011: 698) has suggested that ‘alarmist media reporting’ in the UK may have led to an increase in scepticism about the problem, while Jennaway (2008) has argued that the Australian media has fostered scepticism about the science of climate change and discredited environmentalists; the differing views presumably reflecting the sources of media.

The ways in which media sources make use of imagery is also seen to impact how people respond to the issue. Leiserowitz’s (2006) research supports the findings of Bellamy and Hulme (2011) that egalitarianism is a strong indicator of concern about climate change, but also found that images of disasters associated with climate change had the effect of increasing concern. However, these images, as noted by Leiserowitz, were often of problems that were seen to be temporally and spatially distant, which impacts on the immediacy of people’s perceptions of the problem (Leiserowitz 2006: 64). Similarly, DiFrancesco and Young (2010) have argued that there is a ‘dearth of clear imagery around global climate change’ which ‘makes it more difficult for ordinary citizens to visualise potential impacts and consequences, and to link (often) abstract language claims to the real world and to everyday life’ (DiFrancesco and Young 2010: 531). This research suggests, then, that perceptions about climate change are both cognitive and emotional; people might be concerned but they often balance this against more immediate problems (Weber 2006).
A number of more recent projects have investigated the impact of experiential learning on concerns about climate change (Myers et al. 2012). A national phone survey in the US by Krosnick et al. had similar findings to the research above, but also found that ‘people who believed they had witnessed rising temperatures in recent years were more likely to believe in the existence of global warming’ (2006: 30). Borick and Rabe (2010) also found experiences of weather changes to be an important influence on participant views on climate change, as did partisan affiliation. Interestingly, Shao, Keim, Garand and Hamilton found that as a person moves from the lowest temperature in summer, to the highest, ‘the probability that individuals believe that “global warming is having a serious impact now” increases from 32% to 55%’ (2014: 128).

At the other end of the scale, there is a great deal of interest in why some people are sceptical of climate change, and whether they are likely to change their minds. Whitmarsh (2011) found that many people who are sceptical about climate change display a lack of trust in information sources, and think that there is a greater deal of disagreement on the science of climate change than there is. However, she suggests that this is likely to be ‘motivated reasoning’, a result of cognitive dissonance (Whitmarsh 2011). Similar to the community in Norgaard’s (2011; 2006) study, Whitmarsh argues that scepticism about climate change ‘may be interpreted [as] a mechanism of denial to cope with an internal discrepancy between the demands to engage with climate change and actual personal behaviour’ (2011: 698). Indeed, Poortinga et al. (2011) also found that those who are most sceptical are older, of a lower socio-economic background, and possibly less able to engage with behaviour change.

In Australia, Hobson and Neimeyer (2013) used a ‘deliberative’ process to test whether research participants would shift their views on climate change in May 2010. After a long interview process, 35 participants attended a four-day forum, beginning with questionnaires which indicated their starting position on climate change, moving through information sessions from scientists and policy advisors, and participating in general discussions about what sort of actions might be taken to mitigate climate change. Of the participants who were most sceptical, two left during this process. The researchers argue that this was a result of disingenuous engagement with the process, saying that these participants did not subject ‘their beliefs to the same scrutiny they subjected others’ to’ (Hobson and Niemeyer 2013: 407). Other participants were more likely to shift views, at least towards a more conciliatory perspective. However, as Hobson and Neimeyer conclude, given the time and resources that were invested in the process, that more did not shift indicates that the ‘political recalcitrance and a pervasive public discourse promoting
inaction around mitigation have fostered climate scepticism as an acceptable – and indeed at
time laudable – public position’ (Hobson and Niemeyer 2013: 409). It is of great interest to this
research, then, whether research participants here, who were interviewed within a similar
timeframe, also reflect these positions.

In their review of public attitudes to climate change in the USA and Europe, Lorenzoni and
Pidgeon (2006) highlighted the multitude of factors which impact on how people respond to
climate change. Trust in social institutions, a belief that changes will be effective, and the
seeming lack of immediacy of climate change are all barriers to initiating and supporting change.
The problem of communicating the issue is unresolved; with the key messages found in public
discourse of catastrophism and ecological modernisation producing both negative and positive
results (Carvalho 2009). As Lester and Cottle argue, ‘spectacle may prove essential for processes
of mobilisation and solidarity, but it cannot entirely substitute for the processes of political
debate and deliberation which must also inform the politics of climate change’ (2009: 933).
Almost 20 years earlier, Dunlap argued that all governments need is a ‘permissive consensus’ in
order to carry out climate mitigation policies (1998: 491). Almost 20 years on, it is still unclear
whether even this minimal consensus exists.

2.3 Sustaining business and politics

Perhaps some of the strongest evidence in favour of the ecological modernisation process is the
discussion around ‘corporate citizenship’ and sustainability. These ideas come from the business
and management literature, which may give an indication of their particular limitations (Moon,
Crane and Matten 2003: 1). In the early 1990s, ideas around corporate responsibility gained
increasing prominence in business circles, with multiple terms used to describe initiatives that
businesses had begun to embrace their social obligations to the community (Valor 2005). Ideas
of corporate citizenship originally covered basic principles of what it means to be a ‘good
corporate citizen’: to fulfil economic responsibility; to obey the law; to ‘engage in ethical
behaviour’; and to ‘[g]ive back though philanthropy’ (Carroll 1998: 1-2). Carroll stresses the
inter-related nature of these aims, particularly within the context of ensuring their financial
viability (Carroll 1998: 6). By contrast, the fact that none of the above criteria explicitly suggests
environmental responsibility is noteworthy for the current research.

The incorporation of principles such as sustainability and sustainable development, then, is a
fairly recent phenomenon and has been rather patchy in its development in individual
companies (Marsden 2000). Partly, this comes from the inconsistency of its use and the vague ways in which goals and priorities under the ‘responsibility’ umbrella are defined (Moon et al. 2003: 1; Valor 2005; Sharma and Starik 2002: 13-16; van Marrewijk 2003; Young and Tilley 2006). Marsden’s (2000) analysis of 12 companies brought together to discuss corporate sustainability found a broad variation in the ways corporate sustainability was enacted – and this is among companies that are committed to the idea. While some were able and willing to make major changes, for many it was a matter of implementing extra reporting or cost cutting measures which happened to also improve efficiency (Marsden 2000). Marsden’s research reinforces Pataki’s criticisms of ecological modernisation, finding that ‘the triple bottom line objective is so far more of an idea than a reality’ (2000: 16, original emphasis). Rosewarne (2003: 7-12) has also highlighted how these competing objectives stymied government processes in attempting to produce a program for ecologically sustainable development in relation to greenhouse gas reductions. While an investigation of the effectiveness of corporate sustainability and the detailed debates about how to define it are beyond the scope of this chapter, it should be enough to note here that it is both controversial and difficult to define (Beder 2000).

Interestingly, the early literature on corporate responsibility emphasizes the personal ethics of business people, rather than that of the company (Valor 2005: 192). In the introduction to Research in Corporate Sustainability (Sharma and Starik 2002: 11-12), the lack of empirical data on business people’s influence over environmental policy is identified as an area for further research which is unfortunately not taken up in that book. Little research has been specifically done on the opinions of business people in Australia in relation to climate change.

This is perhaps not surprising, as one of the difficulties of researching people in positions of power is access - as Donaldson and Poynting’s Ruling Class Men (2007), which was based on information already in the public arena, highlights. For this project also, the need to contact participants through their work and to limit the amount of time spent with them, meant that the collection of personal information was not an option. It is likely, however, that many participants will identify themselves as fitting with what Ehrenreich and Ehrenreich (1979) have dubbed the ‘professional-managerial’ class: while they are not the owners of capital, their particular position in the industry in which they work means they are likely to engage in a discourse that is protective of the company and industry in which they are involved. As Bourdieu points out, the everyday practices of employment impact on individuals’ prioritisation of both cultural and economic capital (Bourdieu 1984: 101-109).
Research in the USA has found that people with high cultural capital are more likely to engage in ‘ethical consumption’ - what the authors label an ‘ecological habitus’ – which involves ‘a reconfiguration of high-status tastes that is part of a re-articulation of the field of high-class consumption, fostered by a more general social valorisation of environmental consciousness’ (Carfagna et al. 2014: 160). This has also been found in Australia by Tranter, whose research indicates:

social and cultural specialists, and to a lesser extent human services professionals ... are more likely than manual workers to feel warmly about environmentalists, and more willing to pay for a better environment. However, managers are actually less likely than manual workers to be concerned about the environment (1996: 72)

Previous research in Australia has shown that these allegiances can cause ruptures in what is often presumed to be a homogenous ‘ruling’ class (Connell 1977). That is, that the competitive nature of a capitalist economy means that even those who might be seen to share a common, class-based, interest are likely to challenge each other for dominance when a threat arises. This is also what a traditional Marxist analysis on class fractions would argue (for example, see Poulantzas 1973; Wright 1985; Marx 1963). Beck has also argued that the specific dynamics of risk society will threaten to ‘split the business camp’ (1995a: 28). In relation to climate change, we have already seen divisions between different types of industry in their support and opposition for the government’s then proposed Carbon Pollution Reduction Scheme (CPRS) (Taylor 2009b; Grattan and Arup 2009). Local to the Hunter region, there have been disputes over land use in the climate change related issue of coal mining (Connor et al. 2008). The current research will pay close attention to whether or not this might be occurring because of climate change.

SansGov (2010a), a sustainability consultancy that works with industry and government, surveys small, medium and enterprise business on their opinions about government climate policy. In mid-2010 they surveyed businesses about the government’s then proposed CPRS, and found that:

- 64% of respondents are not clear on what the impacts of an Emissions Trading Scheme or a Carbon Pollution Reduction Scheme will be on them or their industry.
- 78% of respondents believe that not enough is being done to explain the key policies or their potential impacts.
- 63% of respondents believe that the Australian economy does not have the adequate number of green skills to manage an ETS implementation or its aftermath.
• 59% of organisations are moving ahead with the implementation of their own carbon reduction programs.

• 76% of respondents also don’t understand or are confused by what the Opposition means by direct action (SansGov 2010b).

These results do not indicate the opinions of larger industries, and detailed reports on them are not available to the public, but they do give some indication of business people’s concerns and provide a point of reference and comparison for the research in this thesis. That is, that while just over half of those surveyed are pursuing carbon reduction programs, there appears to be a great amount of confusion – and possibly mistrust – in relation to both of the major parties’ proposed climate mitigation policies.

In 2008, the Hunter Business Chamber commissioned a report on the potential economic impacts of the government’s proposed CPRS. The report explicitly ignored any potential economic impact of climate change itself on industries in the region as well as any new jobs or industry that might have been a result of the policy, although it somewhat contradictorily points out the that CPRS may have resulted in the loss of potential investment in coal-fired electricity generation expansion (HVRF 2008: i, 47). The report focussed on the preparedness and levels of knowledge about the CPRS, and found that there were low levels of both (HVRF 2008). Those industries deemed ‘emissions-intensive, trade-exposed’, however, were ‘most advanced in their understanding of the proposed legislation and the potential financial impacts upon their organisation’, probably as a result of their involvement in the government process (HVRF 2008: 33). These surveys are clearly geared towards business users, rather than social analysis, as is evident in their focus on potential economic impacts, knowledge and preparedness. They do, however, provide good background information for the present study, as well as documenting some trends in business concerns and attitudes about climate change and climate mitigation policy.

A number of writers have pointed out that the economic system has been socially constructed over history, in particular through ideological propaganda and state support (Bourdieu 2005; Patel 2009). Castoriadis (1987) argues that the way in which much of society engages with the economic system reflects the imaginary, unconscious idea that the economy is entirely separate from human control. This collective thought process is what makes it ‘true’:

There can never exist any truth that would be the ‘subject’s own’ in any absolute sense. The subject’s own truth is always participation in a truth that surpasses him [sic], a truth rooted in him and that finally roots him in society and in history. (Castoriadis 1987: 107)
The sociological perspective on this allows a way of examining exactly how it is that people ‘participate’ in this creation of ‘truth’.

There is a convincing body of work that argues that by creating alarm about possible damage to the economy, the fossil fuel lobby in particular has been successful in forcing delays to government and international climate mitigation policies. There is little doubt that the machinations of political systems in the West have impacted responses to climate change. McCright and Dunlap (2003) have detailed how, early in the debate about climate change in the US, conservative think-tanks and politicians leapt on the case to ‘challenge the legitimacy of global warming as a problem’ (McCright and Dunlap 2003: 349). This was carried out by promoting scepticism of climate science through their publications, media advertising, sponsoring community events, attacking the IPCC, meeting with policy makers and joining together to create special projects to intervene in international negotiations on climate policy and public debate (McCright and Dunlap 2003: 356-358). Ultimately, the authors argue, these actions caused enough of a disruption in the certainty about climate change to prevent policy designed to mitigate the problem.

In Australia, the reverberation of arguments from industry through government representatives has been well documented. As Marsden points out, in the year 2000: ‘Of the largest 100 economic entities in the world, measuring Gross National Products alongside company annual turnovers, only half are nation states, the others are big companies’ (2000: 11). In this situation, national governments are forced to deregulate and compete against each other for the economic opportunity to host corporate activity, making environmental protection beyond those things which directly (and immediately) affect national populations increasingly difficult.

Hamilton (2001: 26-27) has emphasised the effectiveness of industry arguments around ‘carbon leakage’ – the idea that companies will just move overseas if the government implements a national carbon price – in delaying climate change policy. Rather, companies have convinced governments to invest in ‘clean coal’ technologies through commitments like the Asia Pacific Partnership on Clean Development and Climate (Curran 2009: 207-208). Bulkeley has detailed the emphasis on protecting the economy in the ‘national interest’ that the Howard government successfully used in order to gain concessions in the Kyoto Protocol negotiation process – the outcome of which is tellingly referred to as ‘the fossil fuel clause’ (Bulkeley 2001: 436). Barnsley (2006: 404) says that under the Howard government, representatives of the fossil fuel industry had access to government officials, with environment groups sometimes locked out of policy negotiations. As others have noted, the Australian governments’ ‘final policy white paper [on
the proposed CPRS] appears to have been far more heavily influenced by primary industries than environment groups, with very low interim targets being set and large amounts of compensation offered to business’ (Howes, McKenzie, Gleeson et al. 2010: 15). Perhaps the most striking contribution to this body of literature is Guy Pearse’s High and Dry (2007) which details the extent of the relationships between government and industry, and led to a Four Corners program on the ABC (Cohen 2006) that suggested industry representatives were writing the government’s climate change policy.

While Pearse (2009) has argued that the role of the mining and resources industries in the Australian economy has been exaggerated, it seems that those in power are not convinced. As Rosewarne (2007) has effectively argued, there need only be a level of uncertainty about the potential impacts of climate mitigation for governments to stall on these policies. In Australia, the ambivalence evident in public opinion on climate change, combined with intensive lobbying on behalf of some industries, has led to a total removal of almost all measures put in place under Labor to reduce greenhouse gas emissions. At this stage, there is little evidence that an ‘ecological modernisation’ process is occurring. If Beck is right, however, these movements may be occurring in different ways, on different, ‘subpolitical’, levels. They may be occurring in the boardrooms and everyday practices of those with the financial power to begin the process of soft ecological modernisation. This research aims to contribute to these debates - to discover whether business people accept that the economy can change, or whether they do, indeed, agree with the radical environmentalists that it cannot and that we face an apocalyptic future.

2.4 Or revolution

While ecological modernisation is fundamentally reformist, Eco-Marxists, Deep Ecologists and some Anarchists argue that nothing less than the overthrow of capitalism can resolve the climate change issue (Baer 2008; Trainer 1995; McLaughlin 1993; Leahy 2008; Gould, Pellow and Schnaiberg 2004). These authors have a number of solutions to the climate change problem, and indeed have disagreements between them, but the basis of their position is put rather simply by McLaughlin (1993: 30): ‘capitalism requires growth, but growth cannot be indefinitely sustained within a finite world’.

While writers like Trainer (1995) emphasise the role of consumers in making change, those of the ‘treadmill of production’ school emphasise the impact on the environment of the processes of production (Gould et al. 2004: 300-304). As the opinion poll data discussed below indicates –
and is supported by qualitative data by Gow and Leahy (2005) – when it comes to deciding who should pay for climate protection measures, the general public do not want to pay more, but want government legislation on climate change. This implies either governments or industry will be paying the cost – if there is one – of reducing greenhouse gas emissions. As representatives of business, and consumers in their own right, the responsibility that participants place on the individual as opposed to companies or governments will be of great interest for the study.

The main level of agreement amongst these writers is that fundamental change involving strong government intervention is required, and that this intervention is unlikely to support the continuation of the growth economy: ‘there is no path out of the present crisis that leaves the capitalist mode of production intact. A successful reformist approach of the kind envisaged by ecological modernists is just another path to end capitalism.’ (Leahy 2008: 482). The need to reduce consumption – through individual action or government intervention – is expected to drastically alter existing social structures. Indeed, Trainer (2007) is particularly explicit that renewable technology – now and in the future – is not able to maintain a growth economy. Interestingly, these arguments fit with the conservative concern for jobs and the economy that is the debating point for not implementing policies to reduce greenhouse gas emissions (Rosewarne 2007: 33-40; McCright and Dunlap 2003). The extent to which participants in the research are concerned that government intervention on climate change will damage the economy can, then, be compared and contrasted with the opinions of both ecological modernists and the more radical theorists, although of course similar findings on this subject would not necessarily make participants revolutionary.
Chapter 3: Methodology

3.1 Aims of the research

As discussed in the literature review, there is a large amount of research into the causes and likely outcomes of climate change, government responses to the issue, and public opinion. Yet the empirical research into business responses to climate change is extremely narrow and often focussed on organisational case studies. These studies also tend to focus on businesses which are already engaging with environmental issues, and therefore do not give a broad vision of how climate change and policies related to the issue impacts on different types industries. While some business organisations (see, for instance SansGov 2010b and HVRF 2008) have carried out their own surveys in relation to levels of knowledge about climate change and the potential financial impact of government policy on businesses, these studies also appear narrow in their focus on economic issues, rather than having a broad interest in the various ways business people are responding. This research, then, aims to fill these gaps in both the business and social science literature. The research aims to discover the nuances of business leaders’ opinions about climate change.

For this reason, the research is largely exploratory, although it involves a number of key questions. These are:

- What are the attitudes of business leaders to the public debate around climate change?
- To what extent do these attitudes compete with, or complement, their view of the economy?
- How are business people responding to government policies aimed at mitigating climate change?
- What are business leaders’ preferred responses to climate change?

The ultimate aim of asking these questions is to discover new theories for social change in relation to environmental protection, and mitigating climate change in particular. The range of theoretical perspectives on the social processes of change in response to climate change is somewhat limited. Although the postulations of writers such as Ulrich Beck and others in the Ecological Modernisation school are useful, big picture analyses of the potential social and environmental impacts of climate change, they are not explanations of the current situation in Australia. Beck, in particular, offers an excellent critique of the development of risk society, but moves swiftly between describing the gravity of the problems we are facing into a somewhat utopian, cosmopolitan vision of how we might ultimately respond, rarely offering evidence for
the latter, an example being his later work on ‘emancipatory catastrophism’ (Beck 2015b). It is hoped that through examining the perspectives of business leaders on climate change, some of the gaps in the current literature relating to climate change may be overcome in order to better inform climate mitigation strategies.

3.2 Reflexive considerations

My own interest in the research topic came from my experience as an activist. Of note is that this began around social justice issues, and later moved to environmentalism. As a (small) city dweller throughout my life, I had little love of ‘nature’ or the ‘environment’. What concerned me about climate change – and other environmental issues – was a seeming lack of sense about our ability to recover what was being lost, as well as a moral concern for other species. When I first began working on climate change with a small local climate action group, Rising Tide, it was primarily as a spokesperson for social justice issues related to climate change. Yet the first task at the time was to convince others that climate change was happening. My experience was in line with the current consensus; that people believed in and were concerned about climate change in about 2006, but this began to dive after that (Lowy Institute 2014: 8-9).

Around this time, my commitment to activism also began to waver. It seemed like a lot of hard work with little result; and perhaps a lot of ‘preaching to the converted’. My sociological thinking took over, and I decided to try and discover what others – who we either hadn’t convinced at all, or had not convinced enough – were thinking. Thus, this research began with my honours in 2009, when I dropped all involvement with activism, decided to dress neatly and ask those who I suspected thought differently than I, what they thought about the issue. This involved both a practical and epistemological break (Karakayali 2004: 353-354) with what had been a familiar world. The research here is a continuation of this work on a much larger scale. In the later writing years (2013 and 2014) of the thesis I briefly returned to advocacy, working part time for an Australian Greens Senator as a policy advisor, and happened to be sitting in Parliament House the day that Labor’s carbon tax was repealed. By the time I was in that position, it seemed that much of the debate about climate change had lost its way. This thesis is far from providing answers to the issue, but may go some way towards helping.

3.3 A critical theory approach

Although it is not the aim of the research to prove or disprove the science of climate change, there is an obvious position taken in the aims of the research. My position on the science of
climate change is best explained by the IPCC, and is informed by the precautionary principle (Beck 2009: 53). In the most simplistic interpretation of the problem, the IPCC say that at the very least, there is an overall trend in the average temperature worldwide, that humans have played a role in this through our production of greenhouse gases, and something must be done to reduce them (IPCC 2007). The precautionary principle holds that if a potential risk can be alleviated, then actions should be taken to avoid the problem. There have been strong and salient critiques of this idea, as summarised by Giddens (2009: 55-59). These are that the principle, applied across a range of problems, may lead to contradictory advice, and that it can lead to complete inaction. Giddens prefers the idea of the ‘percentage principle’ – that ‘some form of cost-benefit analysis of possible forms of action’ (Giddens 2009: 58) needs to be carried out in order to direct action. However, Giddens has been heavily criticised for rejecting the relevance of environmental perspectives in favour of ‘an instrumental approach to nature, faith in technological progress and abstract systems of expertise, and the exclusion of ambivalence and uncertainty’ (Thorpe and Jacobson 2013: 100). As Beck points out (although in relation to a different problem), ‘if we anticipate catastrophes whose destructive potential threatens everybody, then the risk calculation based on experience and rationality breaks down... [and] all possible ...scenarios must be taken into account’ (Beck 2009: 53). When applied to climate change, it is evident that such a situation is the case. Indeed, the IPCC has been criticised for being overly conservative (Brysse et al. 2012; Anderegg et al. 2014) and regular updates of climate change data continually indicate that the certainty, and risks of the problem are increasing (Al Jazeera America and Associated Press 2014). Between the 2001 and 2007 reports, for example, data ‘in every instance [indicated] real-world changes were right at the upper limit, or lay outside even the worst-case scenario presented by the IPCC’ (Flannery 2008: 17). In lieu of a better principle, then, and in light of the difficulties of the type of calculations which are Giddens’ preferred approach, the precautionary principle is held here to be the best response to climate change. The fact that there is such fierce opposition to this approach, then, is a major point of investigation for the research.

The position on the science of climate change described above comes in many ways from a positivist perspective – that is, that the reality of the climate is seen as having ‘an objective structure’ (Sarantakos 2005: 35). Yet given the problematics of understanding climate change, there is of course an interpretive element in the level of caution taken. The precautionary principle is one argument that attempts to overcome the types of conflicts that arise between these two perceptions of reality; in terms of social science research, critical theory is another. Although not entirely accepted as a ‘paradigm’ of social research, critical theory is different from
both the interpretive and positivist paradigms in a number of ways that are crucial to the methodology of this research. Sarantakos argues that ‘critical theorists stand somewhere in between [positivism and interpretivism] and believe that although subjective meanings are relevant and important, objective relations cannot be denied’ (Sarantakos 2005: 35). Wynne (2002: 462) and Murphy (2004) argue for a ‘constructivist-realism’. This is summarized as the view that:

Humans socially construct their conceptions and practices (including those concerning nature and risk), as well as technologies, according to their culture and power. They are not, however, purely discursive spirits in a material vacuum, but instead embodied beings embedded in a biophysical world. Social constructions occur on both the discursive level – the focus of social constructivist analysis – and on the material level. (Murphy 2004: 252)

As argued by Pettenger this approach ‘assists in the understanding of how material realities gain meaning through social interaction’ (2007: 6). This perspective is important for the current project: responses to climate change will be mediated by participants through socially constructed meanings and institutions. From an ontological perspective, then, the research situates climate change as both a socially constructed concept of risk, as well as a process of change in the earth’s climate system which is currently occurring.

Through studying the ‘conflicts, tensions and contradictions’ (Sarantakos 2005: 35) in the business community around climate change, and hoping to find new solutions to the problem, the research can be seen as ‘critical social science’. That is:

‘engaged’ science, meaning that it assumes involvement and activism on the part of the researcher and theoretician ...to expose real relations, to disclose myths and illusions, to show people how the world should be and how to achieve social goals. (Sarantakos 2005: 37)

For this purpose, the research is also influenced by the methodology of grounded theory (Glaser and Strauss 1967), aiming to find new theoretical solutions and explanations for the current situation.

### 3.4 Participants

A brief overview of the climate change debate in the media shows two sides within business (for example, see Grattan and Arup 2009; Taylor 2009c). Broadly, there are those industries that are likely to be least affected by climate mitigation policies, which have had little involvement with the public debate. On the other side are those that will be penalised for their greenhouse intensity – such as the coal and aluminium industries – which have been more vocal in their opposition to proposed government policies. This indicates that the greenhouse intensity of a
business is highly likely to influence responses to climate change, and therefore also likely to influence the personal views of those managing such businesses. Participants were chosen with reference to (a) their stance as a ‘leader’ in their industry and (b) the greenhouse intensity of their industry.

In order to understand how these leaders approach climate change, the primary source of data was semi-structured interviews. While an examination of business practices and policies must form part of understanding how climate change is being responded to in Australia, these only reveal limited information. They do not reveal, for instance, what sort of role companies and their representatives play in policy negotiations. Nor do they explain the reasons why some responses to climate change are preferred over others. As documents of the end of a process, policies can only reveal the area on which some sort of consensus has been achieved within particular organisations or industries. Often they may only relate to ‘best practice’ scenarios, rather than what actually happens. In relation to the way issues such as climate change are framed and discussed by business people themselves, they offer little insight. Interview data provides a more personal, subjective and arguably less mediated source of information on the way business people are responding to climate change.

Approximately 50 participants were sought for individual interviews, in accordance with the University’s human research ethics guidelines (approval no. H-2010-0042). Business leaders were identified through local and national media, as well as industry advocacy networks. The sample was intended to be ‘purposive’ – that is, that participants were strategically sought from different industries which have a particular relationship to the research topic (Bryman 2004: 333-335). In order that the research provides a good case study of the region, participants were selected to attempt ‘saturation’ of the data available. That is:

that no additional data [is] being found... As [the researcher] sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated. He [sic] goes out of his way to look for groups that stretch diversity of data as far as possible, just to make certain that saturation is based on the widest possible range of data on the category (Glaser and Strauss 1967: 61)

The aim was to involve a representative sample of business leaders from various industries that are likely to have different priorities in relation to how climate change may affect their business practices. These included those who are ‘neutral’ business advocates, representatives from both carbon intensive industries and renewables; representatives from industries seen as ‘at risk’ from the impacts of climate change (water, insurance, wine growers, farmers); and other locally prominent business sectors which might be seen as neutral in relation to climate change (health,
education, service industries). Although participants were ‘self-selecting’, as can be seen in Table One, the resultant sample managed a suitable representation, with key industries in the region represented by one or more participants.

Interviews were carried out from May 2010 until June 2011. As there was a leadership spill in the Labor government on the 24th of June, 2010, a small number of interviews occurred when Kevin Rudd was Prime Minister, although the majority were under Julia Gillard’s leadership. The difficulties resulting from this period of tumultuous politics within the Labor Party, as they relate to climate change policy, are further discussed in Chapter 9. Potential participants were initially sent a letter of invitation and the information statement, which, was followed up with a phone call or email. Once a participant agreed to an interview, a mutually suitable time and place was arranged (in all but three cases, this was their place of employment) and they were sent the consent form and a second copy of the information statement ahead of the interview. All participants were interviewed on their own, with the exception of Mick and Narelle, who worked together in aged care on the organisation’s sustainability program. Consent forms were collected before or at the interview, at which participants were asked whether they have questions about the research and specific verbal permission – in addition to the consent form – was requested for the tape recording of the interview. Interview data was fully transcribed and pseudonyms given to each, which is how they are referred to throughout the thesis.
### Table: participants by industry, position and pseudonym

<table>
<thead>
<tr>
<th>Industry label*</th>
<th>Position*</th>
<th>Pseudonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Advocacy</td>
<td>CEO</td>
<td>Mack</td>
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<tr>
<td>Consultant</td>
<td>Director</td>
<td>Luke</td>
</tr>
<tr>
<td>Finance</td>
<td>CEO</td>
<td>John</td>
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<tr>
<td>Banking</td>
<td>Managing Director</td>
<td>Richard</td>
</tr>
<tr>
<td>Accountant</td>
<td>Managing Director</td>
<td>David</td>
</tr>
<tr>
<td>Thoroughbred Breeding</td>
<td>Manager</td>
<td>Dennis</td>
</tr>
<tr>
<td>Vintner</td>
<td>Manager</td>
<td>Kevin</td>
</tr>
<tr>
<td>Renewables consultant</td>
<td>Business Development Manager</td>
<td>James</td>
</tr>
<tr>
<td>Industry Advocacy</td>
<td>Deputy CEO</td>
<td>Natalie</td>
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<td>Chief Executive Officer</td>
<td>Simon</td>
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<td>CEO</td>
<td>Trevor</td>
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<td>Owner/ Operator</td>
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<td>Director</td>
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<td>Environmental Business Unit Manager</td>
<td>Lisa</td>
</tr>
<tr>
<td>Tourism</td>
<td>Manager</td>
<td>Michael</td>
</tr>
<tr>
<td>Aged Care</td>
<td>Accountant and Sustainability Advisor</td>
<td>Mick and Narelle</td>
</tr>
<tr>
<td>International Resources</td>
<td>Climate Change Manager</td>
<td>Oscar</td>
</tr>
<tr>
<td>Commercial Property</td>
<td>Manager, Environmental Sustainability</td>
<td>Chris</td>
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<td>CEO and Managing Directory</td>
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<td>Thomas</td>
</tr>
</tbody>
</table>

*Some industry and position descriptions have been generalised in order to maintain anonymity.

### 3.5 The interviews

Following Aberbach and Rockman’s (2002) experience of interviewing elites, the advantages of using semi-structured interviews are thought to outweigh the disadvantages. Participants were asked questions based on a number of key areas of interest to the research question. These are: level of engagement with climate change; responses to climate change in business practices; overall views about the public debate on climate change; specific questions in relation to preferred policy responses and political parties and participants’ perception of the future. The interviews began with a general question about participants’ role in their organisation.
Interviews were semi-structured, and while there was a particular order on the interview schedule that has least confronting questions earlier in the interview and more challenging or personal ones later, the order of questions was usually determined by the direction of participants’ line of discussion. This was to allow for a more ‘conversational quality’ that may assist in drawing out the underlying assumptions that organise participant responses to climate change and possibly the interview process itself (Aberbach and Rockman 2002: 674). It was also seen that this technique more easily allowed a rapport to be built with participants, adding to the depth of the data, which is one of the key advantages of carrying out interviews (Higginbotham et al. 2001: 268). This relates to the second advantage, which is that this technique particularly lends itself to a ‘narrative analysis’ – discussed below in more detail. Of the disadvantages, the order of the questions may not be uniform across interviews, which has the possibility of creating unexpected differences in the data.

3.6 Reflections on ‘studying up’

As an investigation into business leaders’ opinions, the research methods are guided by previous research in the social sciences that are described as ‘studying up’ (Nader 1972). ‘Studying up’ refers to the study of people who are seen to be part of a powerful elite, ‘who shape attitudes and actually control institutional structures’ (Nader 1972: 284), rather than the poor or marginal, which is more common in the social sciences. Despite a number of ongoing calls in the social sciences for more research to be carried out on those in power, such studies are still somewhat rare (Bowman 2009; Nader 1972).

Priyadharshini (2003: 423) and Nader (1972) have both noted that part of the reason for this may just be that social researchers have a tendency to study people and issues they like – which is more often the ‘underdog’ than the privileged elite (Nader 1972: 303). The subjectivity of the researcher goes deeper, however, than just their choice of research topic, and a number of writers have noted that studying the elite may well involve compromising the researcher’s own identity and political views (Priyadharshini 2003: 425; Gilding 2010: 758). As a researcher with a background in climate change activism, such concerns are particularly pertinent to this study. Although I am no longer active in these social movements, there might be seen to be an element of subterfuge in not revealing this to participants. Participants would certainly be able to discover something of my past with a google search, and, as suggested by both Priyadharshini (2003) and Nader (1972) this concern has guided my choice of research topics. This research has
required, then, an emphasis on an ‘inquisitorial rather than an adversarial’ approach (Priyadharshini 2003: 420).

The extent to which ‘studying up’ or ‘down’ has a specific impact on the research is still debated, and although Nader argues that the main issues – around ‘access, attitudes, ethics and methodology’ (Nader 1972: 301) – are problems to be dealt with in all types of research, she also notes a number of particular problems when studying up. There is a small body of literature dealing with the issues of studying ‘elites’ that has proven useful for this research design.

A much noted problem with ‘studying up’ is that of access. Problems of access have been cited as a main reason for relying on secondary sources (see, for instance, Donaldson and Poynting 2007) which, as documents produced for purposes other than social research, have some methodological limitations (Gilding 2010: 756-757). Gilding (2010: 761) has described the use of personal assistants to act as ‘gatekeepers’, but also notes that he, like a number of other researchers, was surprised at the amount of positive responses from ‘elites’ willing to participate. Gilding gives two reasons for this – participants desire to use the interview for personal reflection, and as a means of gaining publicity (Gilding 2010). The interview recruitment material for this research was targeted to the latter motivation, emphasising that the research is a chance for the business community to articulate their opinions on this controversial topic. Of course, in doing so, and especially as participants were contacted through their role in the company of which they are a part, there is likely to be a significant ‘reactive’ factor – awareness of, and response to being studied, and wanting to be an advocate for their organisation (Mouton 1996: 141). It would be a hard argument to put, however, that participant responses were not also ‘their own’. It is a false dichotomy to claim a person and a worker are not one and the same, even though behaviour may be different in each circumstance. At times, a number of participants made special note of the fact that they were giving their personal views, rather than the organisation’s, and it was not uncommon for them to confirm with me that interviews would be de-identified.

An important consideration when both recruiting and conducting the interviews was professionalism. A number of ‘how to interview elites’ type articles emphasise issues such as the importance of using the correct stationery for letters of approach, dressing appropriately (although not uncomfortably) for the interview, of being contactable and punctual (Gilding 2010: 758; Goldstein 2002: 671). In addition, gaining access on the researcher’s own terms is less likely when researching elites (Priyadharshini 2003: 423), and this has the potential to influence the ability of the researcher to answer their research questions. Keeping in mind that
potential participants would be very busy with their own work schedules, interview requests were deliberately kept short, at one hour each, and only one interview (rather than multiple visits) was requested.

3.7 Data analysis

The main analytical framework of the research is discourse analysis, which has a number of meanings in different disciplines (Robson 2005: 365). For the purposes of this research, it is used to refer to the ways in which people represent ‘aspects of the world – the processes, relations and structures of the material world, the “mental world” of thoughts... and the social world’ (Fairclough 2003: 124). Importantly, Fairclough points out:

Discourses not only represent the world as it is (or rather is seen to be), they are also projective, imaginaries, representing possible worlds which are different from the actual world, and tied in to projects to change the world in different directions (2003: 124)

Following Foucault, the research aims to discover the ‘rules which “govern” bodies of texts and utterances’ (Fairclough 2003: 123) in relation to climate change – to explain how participants represent the issue of climate change, and the possibilities for responding to climate change, through the way they talk about it.

Silverman (c2003: 340) points out that one of the roles of social scientists is to explain how ‘talk organises the world’ and that this can be done through semiotic, narrative and discourse analysis, which he explains as follows:

[S]emiotics treats texts as systems of signs on the basis that no meaning ever resides in a single term ... narrative analysis focuses on how accounts artfully use local cultural resources ... and discourse analysis focuses on how different versions of the world are produced through the use of interpretive repertoires, claims to “stakes” in an account ... and constructions of knowing subjects (Silverman c2003: 349)

While Silverman does not explore the relationship between the three, they undoubtedly inform each other. The signs emphasised in a semiotic analysis work towards building a ‘discourse’, and narratives are informed by knowledge of particular existing discourses. As discussed in the literature review, the problem of reconciling economic growth and environmental protection has been a major barrier to climate mitigation policies. The ‘economy’ and the ‘environment’ are often referred to in particular discursive ways that exacerbate this problem. The ways participants position themselves in relation to these discourses is revealed in the ‘stories that they tell’ about themselves and their position on climate change. As Silverman (c2003: 345) points out, narrative analysis can be used to identify where participants utilise ‘culturally
available resources’ – such as a (presumed to be) shared discourse around the economy or the environment, for example – to frame their views, and possibly seek an empathic response. In order to discover those existing discourses, newspaper clippings and public television data over the period from a number of key sources – the local newspaper, the Newcastle Herald, the Sydney Morning Herald, The Australian, and the blogs of prominent conservative commentators were used for comparative analysis. These were monitored intensively from November 2009 for 12 months and sporadically from then. In the final stages of analysis, the key narratives – about government policy, for instance – and discourses – such as those around environmentalists; were compared to interview data.

Initial coding of the interview transcripts was formulated around responses to questions, with primary phrases and words coded into categories that relate to existing issues in the broader social science and media literature. These were largely around questions of:

- whether they thought climate change was happening;
- whether they thought it was caused by human activity;
- whether they supported a price on carbon; and
- levels of support for renewable sources of energy.

The data was then examined for the overall flow and emphasis participants place on various topics – for instance, as discussed in greater detail below, one striking aspect of the interviews was that very little discussion about climate change itself actually occurred. In addition to the media archives, these levels of coding were used to provide a thorough analysis of the data and identify key themes and discourses used and created by participants to gain an overall understanding of their responses to climate change.

3.8 Discussion

The study seeks to analyse participant responses and the ways these reflect social processes in relation to dealing with climate change (Fairclough 2001). To this end, it makes use of Bourdieu’s “field of power” (Wacquant 1993) as a mechanism for analysing the data. This was not always an intention of the research, but became an obvious choice as the analysis progressed, and it became apparent that Beck’s evaluation of climate change as a risk was not a sufficient framework with which to analyse the data. The vast majority of participants did not see climate change itself as a major risk. Indeed, responses to questions about climate change were usually
very brief, while discussion about a price on carbon was often lengthy and impassioned. While Beck’s discussion, then, about knowledge and risk were useful, an additional mechanism was needed to discuss the machinations through which power was being played out in the interviews.

From a grounded theory approach, this needed to be guided by the data. The topics which were most prominent in the data aligned strongly with Christoff’s (2013: 356-357) categorisation of the discursive fields of climate change – primarily the ‘scientific’, ‘economic’, ‘political’ fields stood out, along with an intense distrust of environmentalists. Of his other fields – ‘ethical’ and ‘lived reality’ were less commonly discussed, and ‘technological’ issues were only occasionally touched upon. It became clear that participants were much more engaged with the fields they saw as being more powerful in terms of the ‘relations of definition’ of climate change (Beck 2009: 24-46). It was at first the vitriol with which environmentalists were discussed that turned me to engage with Bourdieu’s discussion of the conflict between economic and cultural capital (Wacquant 1993: 23); the discussions about coal and politics followed. Through their respective positions of employment, many interviewees are participants in the field of power through which much of the climate discourse is being played out (Beck 2010a: 254-255), and their discussion about climate change was much more clearly defined by their relations to politics, environmentalists, scientists, the economy and – for most, but not all - power, than it was to climate change itself.

It is fair to say, then, that while much has been written about the correct way in which ‘fields’ should be researched (Bourdieu and Wacquant 1992: 218-260), the field of power is used here more specifically as a concept than a methodology. Indeed, to construct a research project around Bourdieu’s specified methodology, on climate change and the field of power would be a lifelong – and possibly devastating – project. Thus the account offered here is a snapshot of the field of power, as it played out on the issue of climate change, in a particular time and place. It is but the beginning of such a project.
4.1 Sociology and the environment

A number of authors have argued that the development of sociology during the industrial revolution has meant that dealing with ‘environmental’ problems through a sociological lens has been a difficult task (Lever-Tracy 2008a; Catton and Dunlap 1980; Crook 2003; Murphy 2004). This is because sociology has traditionally followed the process of human movement away from living closely with our ‘natural’ environment – in agricultural societies - and towards one which is constantly under human development – to cities and suburbs. The growth of industrialisation developed at the same time as the view of modernity as a linear progression of human domination of the environment. As sociology followed these changes, our focus has been on issues related to ‘social’ (rather than ‘natural’) constructs, and human to human (rather than ‘environmental’) interaction, largely from a white, male, northern metropole perspective (Connell 2007). In this regard, sociology fits with what Catton and Dunlap (1980) call the ‘human exemptionalist paradigm’, which grew out of this process. In their call for a ‘new ecological paradigm’, Catton and Dunlap (1980: 15-47) argue that as a discipline, sociology needs to resituate our view of the environment as being central to social organisation.

This means overcoming what has been a central divide in sociology; between our understanding of processes of social construction and our physical environment. Lever-Tracy (2008a) has argued that there has been an increasing emphasis in sociology on the former which has inhibited the willingness of sociologists to explore problems seen to be in the realm of the ‘natural sciences’. Those at the extreme end of the social constructionist debate argue that ‘reality is a mental construct ... there are as many natures as there are conceptions of it and risk is what we think it is’ (Murphy 2004: 250), while milder forms emphasise the mediation of humans’ impact on the environment – at the expense of the impact the environment has on us. Murphy (2004) argues that this emphasis ‘suspending’ nature, as though it has no impact on social factors. In this way, even milder forms of social constructivism are, in practice, deterministic and narrowly focussed (Murphy 2004: 250). At the other end of the ‘constructivist-realist’ spectrum, extreme realists have a tendency to deny that problems exist unless they can be ‘scientifically’ proven (Murphy 2004: 251).

As argued by Lash, Szerszynski and Wynne (1996: 1-2), on the one hand sociologists from a realist perspective have a tendency to leave environmental issues to ‘the experts’ – the natural
scientists. Yet such experts are limited in their ability to understand the responses to these problems, which are necessarily socially constructed. This is vitally important for the current project: responses to climate change will be mediated by participants through socially constructed meanings and institutions, which, as Bourdieu (1985) has shown, are created through everyday practices. In particular, Bourdieu (1984: 101-109) argues that a persons’ occupation produces specific ‘fractions’ within classes that can influence taste, values and attitudes. The ways in which participants interpret climate change will have a direct impact on the way that they respond to the issues and, in particular as people in positions of power, this will have an impact on the rest of social space. The research here sits within the environmental sociology field, but is also inherently caught up in discussions about class differences. This chapter draws out the theoretical underpinnings of the research, starting with a brief overview of theoretical perspectives on modernity and the environment, the chapter then explores the way in which the thesis approaches issues of power.

4.2 Second modernity and reflexive modernisation

If sociology has been slow to come to the fore on environmental issues it may be in part because of the rapid transformation of society, creating a wealth of ‘problems’ for sociological analysis. From changes to family and gender structures, to the spread of technology and the slow but steady growth of global capitalism, there is no shortage of major and sometimes alarming transformations needing to be better understood. From a macro perspective, sociologists have tended to characterise these changes as either ‘post’ or ‘reflexive’ modernity. While there is a large literature on the differences between the two, both have ideas that offer an analysis of the changes occurring that are relevant to environmental issues. They share a view that the changes incorporate a lack of trust in scientific knowledge and technology, as well as a process of reflection – if not critique – of modernist assumptions about progress (Hajer 1996: 260-261). Further, there is a recognition from both perspectives that social and conceptual boundaries are breaking down, and becoming increasingly arbitrary (Beck and Willms 2004: 27-34).

However, while ‘post’ modernism implies a move away from modernity, ‘reflexive’ – or the second – modernity emphasises its continuation. According to Beck and Lau, there has been ‘no clear break with the basic principles of modernity but rather a transformation of basic institutions’ (2005: 526).
Thus Beck argues that:

postmodernist theory only tells us what is not the case. It doesn’t say what is the case ... when it’s stance is reasoned out to its ultimate conclusions, postmodernism finally seems to deny the newness and crisis nature of our situation ... whereas postmodernism simply celebrates this multiplication and opening up of boundaries, the theory of second modernity starts with the problem this new reality poses for individual and collective decisions, and with the problem that the continued existence of such decisions poses for theory (Beck and Willms 2004: 26-28)

For this reason, Beck (1996: 38-39) is critical of Zygmunt Bauman, who emphasises a sense of hopelessness and apathy arising from the post-modern experience. By contrast, Beck attempts to offer stronger possibilities for a more positive long term outlook.

One of these is an account of the reflexivity. As noted by Elliott ‘[r]eflexivity ... is defined as much by ‘reflex’ as it is by ‘reflection' (2002: 302). That is, within the second modernity, the urgency and complexity of problems faced by both individuals and our social institutions mean that responses need to be faster, and are often part of an unconscious process. It is then, both the emphasis that reflexive modernisation has on the need for decisions to be made and for a framework in which to understand these new demands, as well as its insistence that we are not ‘post’ modern that differentiates reflexive modernisation from the more descriptive work of post-modern theories (Beck and Lau 2005: 553). Reflexive modernisation theory has led to two related, but subtly different, concepts that attempt to explain how this situation affects our social relationships with the environment: risk society and ecological modernisation (McCright and Dunlap 2010: 103). The following sections will examine these, with an emphasis on the former which provides a society-wide view.

4.3 Ecological modernisation

Both Giddens (2009) and Beck (2008a) argue that climate change can be dealt with through technological innovation supported with government policy, usually in the form of a market mechanism like carbon taxes. This perspective is known as ecological modernisation and is perhaps the most favoured response to climate change policy. Ecological modernisation is the argument that economic growth and environmental protection can be achieved at the same time (Bäckstrand and Lövbrand 2007; Ward 2008; Lever-Tracy 2008b). Early writing on ecological modernisation was ‘based on the overarching hypothesis that capitalist liberal democracy has the institutional capacity to reform its impact on the natural environment’ (Buttel 2000: 59). This moved into attempts to identify how these changes could occur, as well as considering the
potential of globalisation to encourage less developed nations to apply its program (Buttel 2000: 59). Cohen (1997), in fact, suggests that ecological modernisation may be the path down which these nations may avoid becoming risk societies.

A number of writers have argued that the theory of ecological modernisation is still underdeveloped, and there are disagreements about whether it is a political program or an observation of current developments (Pataki 2009: 83; Buttel 2000; Cohen 1997). Mol argues that ecological modernisation can be both a ‘theory of social continuity and transformation’ and a ‘political programme’ (1997: 140). The former view has been criticised for lapsing into determinism, suggesting that ‘over time a society will proceed from pre-modernity, to modernity, and finally to ecological modernisation’ (Cohen 1997: 111).

Yet in order for this to happen, governments need to begin at least a ‘soft’ ecological modernisation program. This involves a “‘techno-corporatist” approach ... [that] focuses mainly on technological change as an autonomous outcome of market forces’ (Howes et al. 2010: 7). By contrast, the ‘strong “reflexive” approach ... encourages a deliberate and strategic political transition to an ecological democracy’ (Howes et al. 2010: 7). While it might be argued that soft ecological modernisation can begin the process of an ecological restructuring of the economy, effectively creating a ratchet effect towards ‘sustainability’, this is precisely where the theory begins to become unclear. As Curran (2009: 203) has pointed out; the very appeal of ecological modernisation depends on the idea that environmental reform can be achieved without structural change. By encouraging individual companies to take on ‘eco-efficiency’ measures – largely under an economic rationale (Howes et al. 2010: 9) – ecological modernisation appeals to companies wanting to avoid government intervention. The need for government intervention for the success of these programs, then, seems to go against one of the main advantages of the ecological modernisation program.

On the other hand, Konstadakopulos (2007: np) has shown that government support is needed to create the ‘environment industry’ – consultants to assist in environmental improvement – in order to make such a transition. Importantly, this research also found that resource intensive economies were resistant to such policy decisions (Konstadakopulos 2007: np). As Pataki has argued, ecological modernisation has a tendency to focus on ‘the internal organisational aspect of ecological problems by not addressing the issue of the nature of business organisations in general and their dominant form, the corporation’ (2009: 84) as well as the power that corporations hold in broader society.
In addition:

while EM privileges an exclusively rationalist frame assuming enlightened corporate managers who relatively easily realise the business opportunities lying in eco-efficiency improvements and change their language accordingly, social constructivist studies on organisational greening reveal the limits characterising institutionalised practices of business organisations (Pataki 2009: 84-84)

So there is a lack of clarity within the ecological modernisation framework as to how much government intervention is required, with research showing that there appears to be a barrier at which companies no longer support it as a political program. The extent to which different participants in the research support the ecological modernisation program, then, will be of great interest for the research thesis.

Although some key theorists of ecological modernisation, such as Mol and Spaargaren (2000: 20-22) have linked it with reflexive modernisation, there are some important differences. While Beck (1995b: 158-184) sees science as becoming increasingly scrutinised in the risk society, the ecological modernisation process – especially in its weaker form – is almost entirely dependent on scientific innovation. Indeed, Pataki (2009: 84) argues that the optimism about science and technological development in ecological modernisation may be both naïve and deterministic. Additionally, it has been argued that the emphasis on the role of the willing corporation in the ecological modernisation framework is at odds with Beck’s emphasis on social movements and ‘subpolitics in the restructuring of the state and political discourses’ (Buttel 2000: 62). Indeed, Buttel says Beck saw ‘radical environmentalism as an enduring feature of advanced industrial societies’ (2000: 59). It can also be argued that Beck has a broader view of the social changes that are occurring – or, from his perspective, need to occur – in response to these risks, and for this reason, Beck’s thesis is a good grounding for the research presented here. It is useful, then, to detail some of the key dynamics identified by Beck and how they might be applied to the responses of business leaders to climate change.

4.4 Risk society

Beck sees the processes of reflexive modernisation as creating a ‘risk society’. The new social dynamics of the second modernity entails the permeation of risks – both known and unknown – throughout society. These risks manifest at both the individual and society-wide levels. As the state relinquishes responsibility for risk, individuals are increasingly forced to manage it themselves. On a society-wide level, Beck has focussed on environmental hazards and to a lesser
extent terrorism as the types of risks nation-states are failing to apprehend. For Beck, then, reflexive modernisation:

does not imply (as the adjective ‘reflexive’ might suggest) reflection, but (first) self-confrontation. The transition from the industrial to the risk period of modernity occurs undesired, unseen and compulsively in the wake of the autonomised dynamism of modernisation, following the pattern of latent side-effects. One can virtually say that the constellations of risk society are produced because the certitudes of industrial society (the consensus for progress or the abstraction of ecological effects and hazards) dominate the thought and action of people and institutions in industrial society. Risk society is not an option that one can choose or reject in the course of political disputes. It arises in the continuity of autonomised modernisation processes which are blind and deaf to their own effects and threats. Cumulatively and latently, the latter produce threats which call into question and eventually destroy the foundations of industrial society (Beck 1994: 5, original emphasis).

In contrast to other dramatic changes in social organisation, the transition to risk society is not marked by violence and bloodshed but by our confrontation with increasing threats to society which we have produced. These risks were not created out of a conscious decision to impose environmental hazards or dangers, but have arisen as side effects of the ‘autonomised’ process of industrialisation. As such, the problems were not recognised until they reached levels of accumulation which turn them into risks.

The two tenets of risk society are the permeation of risk – often seen in environmental hazards – and individualisation, which offers a tool of analysis that relates more closely to how individuals respond to this new modernity. Although the aspects of risk as a social problem are most clearly related to climate change – and arguably have been much of the focus of response to Beck’s work – individualisation is important in understanding how participants in this research respond to the problem. It is useful, therefore, to understand both of these aspects of risk society in some depth.

4.5 Risk

Contemporary risks are different from hazards in pre-industrial society in that they are seen to be created by the process of modernisation – our increasing desire to control and understand the world around us has led to a contradictory state in which these efforts have created risk themselves. Beck has a very particular definition of ‘risk’ within ‘risk society’:

*Risk* may be defined as a *systematic way of dealing with hazards and insecurities induced and introduced by modernisation itself.* Risks, as opposed to older dangers, are consequences which relate to the threatening force of modernisation and to its globalisation of doubt. They are *politically reflexive.* (Beck 1992: 21)
While Beck’s earlier work focussed on the nuclear industry and toxic waste, in many ways climate change is the ultimate exemplar of the new types of risks we face. The two biggest sources of greenhouse gas emissions – wide scale meat production and burning fossil fuels – have been key to the development of the modernisation project. Burning of fossil fuels has allowed both the growth of industrialisation, and with it broad scale land clearing, mass movement of animals to slaughter houses and the ability for processed meat to travel across the globe. It is also worth noting – as sceptics sometimes like to – that greenhouse gases are not always considered pollution. They are part of the Earth’s natural insulation and are necessary for the growth of vegetation. Those concerned about climate change, however, point out that once these emissions reach particular levels they become a risk – and a grave one at that. In this way – and there are many more examples that could be added to the narrative – the desire to feed more people, to travel and spread the technologies of the world through mass production – the very basis of the industrialisation project – has led to climate change, one of the biggest risks humanity faces.

Crucial to understanding Beck’s concept of risk is recognising his emphasis on the way they are socially constructed. He argues that risk is discursive, that it is different from hazards or catastrophes, which relate to particular events themselves (Ormrod 2013: 728). In doing so Beck locates risk as occurring in a specific temporal space, between human recognition of a problem and the event of catastrophe itself:

The scope of the terrorist risk can be determined at best ex post, but not ex ante. Between these two points in time there is an abyss of known and unknown non-knowledge that hinders, and may even preclude, a rational approach to insecurity (Beck 2009: 135)

Thus Beck refers to ‘catastrophe [as] (loss) and risk [as] (anticipation)’ (2009: 135). Beck does not deny the materiality of such risks, but rather suggests that they do not become a part of the ‘risk society’ until they are recognised. In this way, Beck (2009: 85-90) argues that world risk society can be understood in both a realist and constructivist sense. Thus we see that knowledge about issues such as climate change come into the public consciousness just as much from lay people as it does from experts.

Environmental risk is constructed through discourse and the institutionalisation of measures to deal with the problems it poses (Beck 2009: 86-87). Thus Beck speaks of an ‘institutional constructivism’ whereby “[n]ature and the ‘destruction of nature’ are institutionally produced and defined ... within industrially internalised nature’ (2009: 90). In the case of climate change, Beck (2009: 84-85) argues that the Stern report is an example of ‘staging’ whereby a problem
that was ‘invisible’ is made ‘visible’ through references to socially recognisable examples of
disaster such as drought and famine.

climate change is not (yet) a reality. It is a risk, something which threatens to become a
reality, a future projected into the present, an anticipation bearing all the hallmarks of
uncertainty, whose aim is to change present actions, specifically those of governments and
managers, and ultimately of all human beings throughout the world. (Beck 2009: 85)

Here Beck is not arguing that climate change does not exist, as some critics (Lever-Tracy 2008b)
have claimed. Rather, he is emphasising the need for climate change to be brought into our
social and institutional consciousness. That is, there is a process of recognition and
interpretation that is socially constructed through publically mediated discussion and debate
that leads to the recognition of climate change as a risk which must occur before it is to be acted
upon.

Ideally, recognition of risks leads to response, and how these are carried out is an important part
of the dynamic of the risk society. Risk, then, is evidenced by our response:

Risks always depend on decisions – that is, they presuppose decisions. They arise from the
transformation of uncertainty and hazards into decisions ... The incalculable threats of pre-
industrial society ... are transformed into calculable risks in the course of the development
of instrumental rational control, which the process of modernisation promotes in all
spheres of life (Beck 1996: 30)

While some (such as Elliott 2002) have interpreted these comments to argue that Beck sees risk
as calculable, a closer reading would emphasise the ‘uncertainty’ he addresses. For, as is
discussed in further detail below, Beck argues that these decisions are actually made in a context
of ‘non-knowing’. He argues that decision making is hampered in the risk society, as ‘the
calculation of risk as it has been established so far by science and legal institutions collapses’

4.6 Non-knowing

While the modernist response to risk is to attempt to calculate the threat and make decisions
on the basis of such calculus, our inability to have a thorough knowledge of the problems we are
facing makes this impossible in the risk society. Beck argues that as societies ‘are confronted by
the challenges of the self-created possibility, hidden at first, then increasingly apparent, of the
self-destruction of all life on this earth’ (1995b: 67), they become more sceptical about the
relationship between technology and ‘progress’, as well as the scientific institutions which are
seen as advocating that paradigm.
Right from his early work on environmental risk, Beck (1995a; 1995b) has argued that the realisation of risk has created a deep mistrust of science and technology. That the development of industrialisation has brought about so many risks has highlighted the lack of knowledge and the limits to the possibilities of reaching a definitive understanding of the world around us. This, Beck argues, is the state of ‘non-knowing’. In contrast to the modernist narrative of ever increasing knowledge, the risks – such as those posed by nuclear power for instance – appear to be increasingly difficult to understand. As Harriet Bulkeley has noted, ‘[r]isks are produced within modernity, but their distanciated, unpredictable and imperceptible nature means that the institutions of modernity are not able to respond to them’ (2001: 433). This is in contrast to the modernist view, where a lack of knowledge was ‘regarded merely as that which is not yet known; nothing in the world is held to be unknowable and hence the triumph of knowledge is only a matter of time’ (Beck and Wehling 2013: 36).

Beck argues that, contrary to the idea that further human effort needs to be engaged in order to increase knowledge, it is this process itself which has created the risks we face today:

> World risk society is a non-knowledge society in a very precise sense. In contrast to the premodern era, it cannot be overcome by more and better knowledge, more and better science; rather precisely the opposite holds: it is the product of more and better science. (Beck 2009: 115)

In later work with Peter Wehling, Beck (2013) identifies three ways in which non-knowing is interpreted – epistemic awareness – the extent to which we are aware of a lack of knowledge; social intentionality – which may be a conscious, individual choice or may be a result of ‘the actions and omissions or persons or groups’ (Beck and Wehling 2013: 40) and temporality, which ‘speaks to the possibility of transforming non-knowing into knowledge over the course of time’ (Beck and Wehling 2013: 40). Of the latter is also the possibility that we may never know.

The status of science and knowledge has a very prominent role in how we respond to climate change, and this is discussed in further detail in Chapter 5, ‘Non-knowing and ambivalence…’ but it is worth noting here that Beck and Wehling’s (2013) conclusions about this situation are somewhat unsatisfying. Many an environmentalist would agree with their argument that the ‘idea implicit in such a politics of non-knowing consists in declining to use certain forms of knowledge and technologies, not because concrete risks can be specified, but ‘only’ because the scale of the non-knowing entailed seems too great and too risky’ (Beck and Wehling 2013: 53). However, rather than being ‘innovative and provocative or, if you will, “revolutionary”’ (Beck and Wehling 2013: 53) as they claim, this view is one that has been argued for some time as the
‘precautionary principle’. The question in relation to climate change, then, is how it interacts with non-knowledge, and how this produces action or inaction.

4.7 Beck’s relations of definition

One answer to this from Beck (2009: 24 - 46) is that within a risk society, relations of definition have overtaken relations of production as a central organising principle and a means of exerting power. This new dynamic, according to Beck, is one way in which power is democratised. As Beck argues ‘[r]isks are constructions and definitions based upon corresponding relations of definition’ (2009: 30, original emphasis). This is underpinned by relations of domination. Beck argues that relations of definition are played out within the ‘rules, institutions and capabilities which specify how risks are to be identified’ and that these ‘form at the legal, epistemological and cultural power matrix in which risk politics is organised’ (Beck 2009: 32). The examination of relations of definition involves four key ideas: who determines what is considered risk; what knowledge is involved with this; what counts as proof; and who decides how we are to respond (Beck 2009: 32). Decisions are then made on a basis of which definition is believed, rather than on the basis of objective knowledge.

Making a decision in this context is, of course, an extremely difficult task. Within the context of non-knowing, and indeed the very nature of the risks themselves, following a course of reasoned definition is almost impossible. Indeed, Beck points to the issue of organised irresponsibility (2009: 27-31), whereby the ability to apportion blame, previously carried out by our scientific and legal systems, becomes increasingly evasive. As with climate change, the causes are so numerous that the ability to respond with legal reprimand is incredibly difficult⁶, and at the same time the burning of fossil fuels is a central part of the industrial project itself; the issue of where to apportion blame and how to respond becomes paralysing. So we are left, as Beck notes, with a situation where ‘the institutions of modern society must unavoidably acknowledge the reality of catastrophe while simultaneously denying its existence’ (2009: 149). That is, we are caught in the problem of having a general recognition of climate change while doing little of substance in response.

Beck argues that this failure of traditional political institutions to deal with risk creates a ‘subpolitical’ space in which expert knowledge and non-government institutions are encouraged

⁶ –Although a recent judgement in the Netherlands, directing the Dutch government to cut greenhouse gas emissions by 25% in the next five years appears (Howard 2015), in this particular case at least, to have broken the impasse over how to attribute harm (White 2004: 278-284)
to engage with the problems and suggest solutions. Beck defines this as politics ‘outside and beyond the representative institutions of the political systems of nation-states’ (1999: 39). This process is, presumably seen to be more democratic because it involves greater and more direct engagement with decision-making: where ‘previously “private” decisions are rendered “political”: legitimacy [is] increasingly locate[d] outside the political system in economic, technological, scientific, community and consumption sites’ (Bulkeley 2001: 433).

However, the valorisation of subpolitics as democratic fails to take into account the necessity for political subjects to be formed through transparently democratic processes. As such, de Vries argues that a ‘democratic deficit looms where subpolitics emerges’ (2007: 806) as subpolitics does not account for the production of new political objects. Further, as Bulkeley (2001) has shown, the realm of subpolitics is not necessarily progressive; already in the case of climate change we see corporations form alliances with community groups and government under the guise of providing solutions, but at the same time undermining institutional attempts to agree on global reductions for greenhouse gases.

There is another way forward for such agreements, however, and on this Beck is somewhat more honest about the speculative nature of his argument. This is in cosmopolitanism. That risks such as climate change do not follow national boundaries makes climate change, as Beck (Beck and Sznaider 2006; Beck 2010a; 2010b) has argued in a number of papers, the ultimate candidate for a cosmopolitan solution. This requires, however, first a recognition of the problem and, perhaps even more difficult, a decision making process which considers the impacts on all participants and is able to reach a consensus on how to respond (Beck 2011: 1355). In the case of climate change, this appears to have become increasingly evasive, raising the question of who is – and is not – in a position to define the problem.

Beck (1999: 111- 112) notes that the problem of what he and Anthony Giddens call ‘manufactured uncertainty’ encompasses two problems. The first is that increasing technological knowledge opens up further risk; the second is that we may not know what these risks are (Beck 1999: 140-141). Beck appears to acknowledge this when he notes in the case of BSE (Bovine spongiform encephalopathy – more widely called ‘mad cow disease’) that the extreme response to manufactured uncertainty is totalising – to argue that if we cannot know the absolute outcomes of risk, we should deny them (Beck 1999: 141). This seems a fitting analysis of climate change. Indeed, much of the public debate has been focussed on the extent to which we agree – and mostly we do not – on whether it exists and how dangerous it is. Indeed,
Norgaard (2006; 2011) has written extensively on the aspect of denial involved in experiencing climate change.

As is evident from the literature review, the contestation over our knowledge about climate change has been fierce. While Beck refers to a ‘culture matrix’ of how these issues are defined, he has a tendency to underestimate the influence of existing power structures. This has led Ormrod to argue that ‘even within the field of expert opinion, the overwhelming message is one of uncertainty. What is more important is the politics surrounding how decisions regarding risks are made’ (2013: 729). Elliott is also critical of the lack of detail in Beck’s predictions: ‘[t]he general, tendential assertions he advances about business and organisational restructuring assume what needs to be demonstrated – namely, that these new organisational forms spell the demise of social class, as well as the viability of class analysis’ (2002: 304). Given the nature of the current research in examining the attitudes of business leaders, this is a crucial issue. In order to examine this, it is necessary to attend more specifically to how individuals might take up particular positions in the cultural matrix.

4.8 Individualisation and class

If risk society has created a sense that institutions have failed, this has been assisted by the withdrawal of the nation state under a neoliberal political system. The idea of individualisation has been explored by a number of key contemporary social theorists, including Zygmunt Bauman, Anthony Giddens, Ulrich Beck and Elisabeth Beck-Gernsheim. The key tenet of individualisation is that our society has moved away from collective, institutional responsibility for people’s welfare and increasingly imposed a model whereby the individual is responsible for their own well-being (Dawson 2012).

Economic and ideological neoliberalism have driven this shift, as ‘the neoliberal market ideology enforces atomisation with all its political will’ (Beck and Beck-Gernsheim 2002: 24). This, however, has both positive and negative outcomes, as traditional social structures have become more fluid and less constricting. Giddens (1991) refers to this as a process of de-traditionalisation and argues that this has had the effect of disrupting our ontological security. As our ideas about gender, family structures and life paths become increasingly about choice rather than tradition, and while this freedom may be welcomed by many, it also has the effect of producing anxiety. In such a situation, we then need to actively produce a biographical narrative that deals with risk and creates an individual sense of ontological security. As Giddens puts it: ‘we are not what we are, but what we make of ourselves’ (1991: 75).
The inference here is that a much greater range of choice is available to the individual, who is no longer limited by previous constraints like ethnicity, gender and class. In this process, it is argued that people are disembedded from any sort of class consciousness:

> class as a community of fate declines steeply ... new blendings of economics and democracy are discernible in the rise of political civil rights within the workplace, a blend which opens up the possibility of a post-capitalistic world (Elliott 2002: 303)

Indeed, Beck argues that ‘[a]n economy that becomes capable of learning ecological lessons will split’ as ‘business [recognises it] can profit from the successes and hazards it has unleashed’ (Beck 1999: 102). Fifteen years later, this prediction needs further examination.

Beck’s dismissal of class as a key sociological tool has been one of the most highly criticised aspects of his theoretical vision; numerous defences of the ongoing value of class as a tool for social analysis have been mounted against Beck (Atkinson 2007; Curran 2013; Roberts 2010: 140-143). As Elliott argues, Beck fails to recognise the way in which individualisation can increase inequality: ‘individualisation may actually embody systematically asymmetrical relations of class power’ (2002: 304). Thus Elliott calls for a means of developing ‘analysis for explicating how patterns of power and domination feed into, and are reconstituted by, the socio-symbolic structuring of risk’ (2002: 304).

This has been echoed by Curran (2013) who argues that the emphasis on the distribution of ‘bads’ in risk society would be a useful way of looking at class, alongside – rather than instead of – the distribution of ‘goods’ such as wealth. Curran’s argument returns to Beck’s conceptualisation of risk, questioning Beck’s claims of the totality of risk – which Curran says is more about disasters – and our ability to calculate them (Curran 2013: 47-49). In particular, Curran argues that Beck’s ‘rejection of gradations of knowledge of risk renders opaque the social processes that structure the distribution of risks’ (2013: 50). That is, people will respond to their own perceptions of risk without an ability to fully know what they are, and that this response is likely to be based around an individual’s position in terms of wealth, as well as how likely we are to suffer from the ‘bads’: ‘knowledge of the main contours of existing risks enable the wealthier to choose to better insulate themselves from many key social material risks’ (Curran 2013: 51).

While Beck responded to such criticisms by recognising that risk exacerbates inequalities, he remained reticent to withdraw from his claim that class is a ‘zombie’ category (Beck 2013). This leaves both a gap in the risk society theory for an exploration of the impact of risk on social dynamics of inequality, as well as a gap in the utility of Beck’s work for this project in particular. As Elliott argues, Beck underemphasises the ‘social structuring of the perception of risk ... Beck’s
theory cannot grasp the hermeneutical, aesthetic, psychological and culturally bounded forms of subjectivity and intersubjectivity in and through which risk is constructed and perceived’ (2002: 300-301).

4.9 Zombies are real

There are indications already in the Hunter community that Beck could be right about a ‘split’ among business leaders in relation to climate change (Connor et al. 2008). Such a split is not necessarily, however, a new phenomenon; traditional Marxist analysis of class fractions has shown that competition for dominance is ongoing amongst the ruling classes (Poulantzas 1973; Wright 1985; Marx 1963). Connell (1977) has also argued that there is no such thing as a homogenous ruling class, and shown that the priorities of individuals within what we might term the ‘ruling class’ are often in competition until the class as a whole is under threat. While examining how business people respond to climate change presupposes that they are in a position of power, it does not presuppose a specific class position. While participants are leaders in their organisations, the businesses range from multi-national corporations to locally owned small businesses. As such, participants’ social position can be fairly seen to be ‘elite’, and they are likely to fit with what Ehrenreich and Ehrenreich (1979) have dubbed the ‘professional-managerial’ class: while not all are not the owners of capital, their particular position in the industry in which they work means they are likely to engage in a discourse that is protective of the company and industry in which they are involved.

While the concept of individualisation emphasises the idea of conscious choice in such matters, it fails to identify the influence of everyday practices of particular employment positions, knowledge accumulation and social networks. While Beck refers to the ‘concept of “practical experience” (similar to Pierre Bourdieu’s (1984) concept of habitus)’ as means of understanding the ‘preconceptual, non-ideational foundation of discourse’ (2009: 207); he does not elaborate on this. This lack of a theory of practice has been noted by a number of scholars (Alexander 1996: 134), most importantly by colleague Scott Lash (1994: 153-156) who has critiqued the cognitive explanations that both Beck and Giddens’ ideas of reflexive modernisation suggest. Both Lash (1994) and Binkley (2009) have suggested that the work of Pierre Bourdieu offers a more useful analysis for understanding the influence of everyday practices on how we understand our relationship to the risks of reflexive modernisation.
Bourdieu is, indeed, critical of purely cognitive analyses:

The arguments that have developed ... around classifications and classificatory systems have one thing in common: they forget that these instruments of cognition fulfil as such functions other than those of pure cognition ... Practical taxonomies, instruments of cognition and communication which are the precondition for the establishment of meaning and the consensus on meaning, exert their *structuring* efficacy only to the extent that they are themselves *structured*. This does not mean that they can be adequately treated by “structural”, “componential”, or any other form of strictly *internal* analysis which, in wrenching them from their conditions of production and use, inevitably fails to understand their social function. (Bourdieu 1977: 97, original emphasis)

Such a view underlines Bourdieu’s insistence on relationalism; that it is the *relations* between an individual and society, rather than one or the other, which must be the focus of sociological thinking (Bourdieu and Wacquant 1992: 15). To this end, the research turns to a number of Bourdieu’s key concepts in order to examine the ways in which participants’ responses to climate change reveals both the ways in which their ideas are structured, as well as the extent to which they themselves structure the debate.

### 4.10 In the field

Wacquant argues that Bourdieu’s ‘key concepts of *habitus* and *field* designate bundles of relations’ (Bourdieu and Wacquant 1992: 16, original emphasis). He explains:

A field consists of a set of objective, historical relations between positions anchored in certain forms of power (or capital), while habitus consists of a set of historical relations “deposited” within individual bodies in the form of mental and corporeal schemata of perception, appreciation and action. (Bourdieu and Wacquant 1992: 16)

The habitus, then, is affected, and *affecting*; as we respond to others, we are both perpetuating and expressing ‘practices and the perception of practices’ (Bourdieu 1984: 170) that we have internalised through our own experiences. Fields ‘designate the social and symbolic spaces around a specific activity and a specific stake’ (Mangez and Lienard 2014: 183). According to Wacquant:

Each field prescribes its particular values and possess its own regulative principles. These principles delimit a socially structured space in which agents struggle, depending on the position they occupy in that space, either to change or preserve its boundaries and form. (Bourdieu and Wacquant 1992: 17)

The concept of field has been used to investigate a wide range of social phenomena, such as law, politics, journalism, education, science, religion and more (Hilgers and Mangez 2014: 5-6).
Bourdieu argues that each field possesses its own system of logic, which reproduces ‘the power relations of which they are the product’ and can have the effect of limiting ‘awareness and recognition of the possibility of different or antagonistic beliefs’ (Bourdieu 1977: 164). Following Plato, Bourdieu calls this ‘doxa’:

just as the “right opinion” “falls right,” in a sense, without knowing how or why, likewise the coincidence between dispositions and position, between the “sense of the game” and the game, explains why the agent does what he or she “has to do” without posing it explicitly as a goal, below the level of calculation and even consciousness (Bourdieu and Wacquant 1992: 128)

The power of doxa is affected by illusio; that is, one’s ‘investment in the game’ or field (Bourdieu and Wacquant 1992: 98).

Following its own logic, each field places greater or lesser importance on the types of capital possessed by those within the field. In addition to economic capital, Bourdieu identifies cultural and social capital as forming the matrix of social relations. Cultural capital can exist in three forms: in the embodied state, i.e., in the form of long-lasting dispositions of the mind and body; in the objectified state, in the form of cultural goods … which are the trade or realisation of theories or critiques of these theories, problematics, etc.; and in the institutionalised state … [which] confers entirely original properties on the cultural capital which it is presumed to guarantee (Bourdieu 1986: 243, original emphasis)

Meanwhile, ‘social capital is the aggregate of the actual or potential resources which are linked to possession of a network of more or less institutionalised relationships of mutual acquaintance or recognition’ (Bourdieu 1986: 248). Although there are means of transferring each type of capital into another, some are more difficult than others – for instance, Bourdieu argues that the transformation of economic capital into social capital through an act such as offering a personalised gift, involves a great deal of both time and money, which may not be seen as a wise ‘economic’ investment, but may be of great social benefit (Bourdieu 1986: 253). To these three types of capital, Bourdieu also speaks of symbolic capital, which is not so much a form of capital itself, ‘but what every kind of capital becomes when it is misrecognised as capital, that is, as force, a power or capacity for (actual or potential) exploitation, and therefore recognised as legitimate’ (Bourdieu 2000: 242).

It is through the particular field, and the field of power which symbolic capital is misrecognised. Each field is influenced by the field of power, which ‘operates as an organising principle of differentiation and struggle’ (Swartz 1997: 136), and is used by Bourdieu to discuss the dynamics of domination. Bourdieu developed the field of power as a means of understanding domination
outside of the usual classificatory systems; to explore the ways in which the ‘configuration of power relations within which the dominants ... of society are arrayed and pitted against one another’ (Emirbayer and Johnson 2008: 13; see also Wacquant 1993 for a detailed discussion of this). Within this field, economic and cultural capital work in a ‘chiasmatic structure’ to shape hierarchies of power. As Swartz observes, ‘the greater the difference in asset structure of these two types of capital, the more likely it is that individuals and groups will be opposed in their power struggle for domination’ (Swartz 1997: 137). This observation is incredibly pertinent to the debate over climate change, which often fundamentally pits the environment against the economy, a discourse which is heavily influenced by and played out in the field of power.

In addition, Bourdieu (1984: 101-109) speaks specifically to the way in which employment in a particular industry – a space in which different types of capital are prioritised over each other – can impact on one’s habitus. Echoing the work of Marx (1963) on class fractions, Bourdieu notes the conflicts that arise over the differential power given to different types of capital:

The fractions whose reproduction depends on economic capital, usually inherited – industrial and commercial employers at the higher level, craftsmen and shopkeepers at the intermediate level – are opposed to the fractions which are least endowed (relatively, of course) with economic capital, and whose reproduction mainly depends on cultural capital. (Bourdieu 1984: 115)

Interestingly, Bourdieu argues that both the rich and the working class value the material pleasures of life, while much of the middle class favour asceticism (Bourdieu 1984: 214-219). This latter point is important to any work examining climate change, as many of the solutions around living more sustainably fit this latter preference.

4.11 Discussion

Beck has been heavily criticised for being polemical and lacking empirical data to support his claims that risk has become the overarching concern of late modernity, and especially for his somewhat glib claims that ‘smog is democratic’ (1992: 36) and class is a zombie category (2013). At times it might appear that Beck lays himself victim to his colourful writing style, as he has indeed outlined his concerns that social inequality will be exacerbated by risks at the very least. At times Beck’s writing appears almost predictive, advocating the type of response he believes will help as though it is already happening. While moving away from Beck’s own style of part-speculation part-analysis, it is useful to reiterate the vitality of his work; the fundamental positioning of risks as central to the second modernity and the potential for our understanding
of how we relate to the environment within reflexive modernisation provide an excellent framework within which to study climate change.

While others such as Bourdieu offer a nuanced exploration of how individual identity and practice is guided by the social, there is little space in his work for incorporation of the bigger issues of politics, globalisation and environmental hazards on the scale of climate change within his theory. Indeed, there is little in the broader sociological literature that centres social change around the types of massive scale impact we as a species are having on the planet, and how this might affect our social organisation. If Beck is lacking in these details, it may be because sociology, until relatively recently, has not been a party to the discussion. The research presented in this thesis aims to contribute further to that discussion. By its very nature this research rejects Beck’s assertion that class is no longer a useful tool of analysis. There are, however, some indications that the business community may well be ‘split’ in its response to climate change. The key questions for this research are not only whether this is occurring, but the extent to which it occurs, how governments and policy makers might respond, and the impact of these social dynamics on climate change itself.
Section Two: Risk society and modernisation

Chapter 5: Non-knowing and ambivalence - resisting the logic of science

5.1 Introduction

It’s just straight scientific fact that the greenhouse gas acts in a way that light goes through...but it traps heat that’s radiated back from earth. That’s a fact, nobody can debate that, although people (short laugh) who might not have a full understanding of it, may try to – you know – talk about ‘what possibly could a gas do’ – well that’s what it does ... It’s another scientific fact that warmer air holds more moisture and that then has implications for precipitation intensity and distribution. Fact – you can’t argue with that.

Another fact on it all is that as emission levels rise, then the oceans act as a carbon sink... So they’re all facts.

- Chris, commercial property development

The development of industrialisation has been coupled with awe at the ability of human understanding – through science – to explain our surroundings. From the systems of the Earth, to an individuals’ psychological makeup, and for some sociologists, our social systems as well, there is little question that the human project for much of the 19th and 20th centuries has been to expand and refine our scientific knowledge. The pace at which knowledge, science and technology grew gave credence to the idea that humankind could achieve almost anything. History, it might seem, began with the Enlightenment; a process through which we separated the human from the non-human, the modern from the natural.

Climate change has undoubtedly raised a challenge to this process. Firstly, as Latour (1993; 2013) and numerous others (for example Catton and Dunlap 1980; Murphy 2004) have argued, this perception of the distinction between nature and humanity was always problematic. The very idea that we are separate from nature involves a socially constructed boundary which is always in the process of being made and remade through subjective interpretation. Secondly, the somewhat exuberant perception that modernisation is equivalent to ‘progress’ has been challenged by climate change. As Beck (1992; 1994; 2009) has repeatedly argued, the process of modernisation has created unforeseen risks that have contradicted our faith in science and technology. This has occurred in numerous ways.

Through the rapid development and deployment of technology and the specialised nature of scientific knowledge, ‘modernisation’ has created more gaps in our understanding of the world.
Beck (2009: 115-128) calls this non-knowing; another result of the success of modernity, non-knowing refers to the proliferation of knowledge and information, which makes it difficult – sometimes unintentionally, sometimes deliberately so – to understand what we do and do not know, to identify the gaps in our own knowledge, and therefore to act accordingly. The risks created as part of the modernisation project then become a source of scepticism of the scientific institution (Latour 2013), and the ‘facts’ – as reported by Chris in the quote above – are seen as subjective: ‘it ultimately becomes a political question whether we interpret a given situation...as one of knowing or of non-knowing – and act accordingly’ (Beck and Wehling 2013: 39). This chapter makes use of Beck’s ideas of non-knowing as a means of understanding and considering the implications of participants’ views of the science of climate change.

5.2 On knowledge and action

Beck (2009: 24 - 46) argues that within a risk society, relations of definition have overtaken relations of production as a central organising principle and a means of exerting power. This new dynamic, according to Beck, puts power in the hands of those who are seen to have more authoritative knowledge, and moves it away from those who own or control the physical production of goods. As he argues ‘[r]isks are constructions and definitions based upon corresponding relations of definition. Their existence takes the form of (scientific and alternative scientific) knowledge’ (Beck 2009: 30, original emphasis). Within this process, however, ‘institutionalised norms potentially equip specific groups with the power to impose their definitions and interests against the will of other groups’ (Beck 2009: 33). Further, Swyngedouw (2010: 217) argues that ‘[s]cientific expertise becomes the foundation and guarantee for properly constituted politics/policies’. He describes this process as ‘science-politics short-circuiting’ (Swyngedouw 2010: 220) and has argued that the framing of the issue as a universal concern has led to a situation whereby ‘decision-making is increasingly considered to be a question of expert knowledge and not political position’ (Swyngedouw 2010: 225). In relation to climate change, these comments imply that the voices that will be best heard are scientific elites – that the problem, once identified, will be taken up in the political realm at the behest of expert knowledge. This has been far from the case.

There is no doubt that climate change has been subject to a struggle over definitions. The degree to which the science of climate change – in particular that coming from the IPCC – is accurate, is the most intensely debated aspect of the issue. Much has been written about the long history of coal, oil and gas companies’ involvement in the development of a counter-narrative to climate
science (see, for example Boykoff and Boykoff 2007; McCright and Dunlap 2010; Jacques, Dunlap and Freeman 2008). From the outset of the establishment of the IPCC in 1988, the Global Climate Coalition was created by a group of energy companies in order to combat the scientific basis of climate change and any policies that may be put forward to mitigate it (Urry 2011: 20). These arguments against climate science are strongly represented in both conservative media and by politicians seeking to prevent climate mitigation policies, and have been shown to have some resonance in the broader populations of rich Western nations in particular (Krosnick et al. 2006). These perceptions are important to understanding our response to the issue. Because the nature of climate change is such that its impacts are dispersed over time and space, the extent to which it is seen as a risk – rather than the extent to which it physically manifests – is likely to be the crucial factor in decisions about how to respond. Beck calls this the ‘staging’ of risks (2009: 11-16).

For this reason, a great deal of research has been focussed on people’s understanding of climate change, as well as their concern about the issue. Much of the early research on attitudes to climate change emphasised the importance of knowledge about the issue, and was based on the assumption that an increase in knowledge of the science of climate change and its likely impact would lead to behaviour change. This perspective, labelled the knowledge deficit model (Stoutenborough and Vedlitz 2014), provided the model for many of the early responses to climate change, with projects like Al Gore’s 2006 film An Inconvenient Truth (Guggenheim 2007) being one of the most prominent examples of attempting to bring about change through knowledge. A major film production explaining the science of climate change and its impacts in everyday language, accompanied by an ongoing education programme and information about what people could do about the problem, the film was a clear attempt at informing the public about climate change, and moving them towards individual, if minimal, action (Jacobsen 2011).

The extent to which knowledge of climate change influences concern or support for climate mitigation has been one aspect of social research that has had surprising results. A number of authors (Norgaard 2011; Bulkeley 2001) have found a lack of support for the ‘knowledge deficit model’ – that is, the idea that those who lack the detailed knowledge of climate change are less likely to support measures to prevent it, although Stoutenborough and Vedlitz (2014) have argued that ‘scientific measures of knowledge’ on climate change are contrary to this.

It is important, however to recognise the difference between knowledge and risk perception. While increased risk perception is likely to result in willingness to act, knowledge does not necessarily lead to a perception of risk (Stoutenborough and Vedlitz 2014). While
Stoutenborough and Vedlitz found there have been some problems with the way knowledge deficit has been measured, their research agrees with the broader perspective coming through the social science literature that argues that ‘reducing the knowledge deficit model does not appear to be the prime mover’ (2014: 30). Qualitative fieldwork from Bulkeley (2000; 2001), Threadgold (2012) and Norgaard (2006; 2011) has found that people may have a great deal of knowledge – or even be affected by the impacts – of climate change and still operate with some level of denial. This type of research is no longer surprising. It might also be observed that under the knowledge deficit model, the rapid growth in awareness of climate change that followed the fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC 2007) – which is widely recognised as a turning point for a general acceptance of the science of climate change – should have resulted in a globally concerted effort to reduce greenhouse gases. That this did not occur is now, eight years later, largely self-evident.

Both qualitative and quantitative research into attitudes on climate change can give us some ideas about why the knowledge deficit model is at best only a part of the explanation of the now apparent inaction on climate change. From a sociological perspective, it is not surprising to find that a person’s subjective positioning will influence their understanding of risk. Tranter (2013) has suggested that the most prominent factor in Australia is political allegiance. This is also supported by Stoutenborough and Vedlitz (2014) who have found that political ideology is a consistent indicator in relation to climate change attitudes. Interestingly, numerous studies show a tendency for people to believe they are better informed about climate change than they are (Stoutenborough and Vedlitz 2014). Previous research has also pointed to gender and income as issues that affect one’s interpretation of the science. In general, women are more likely to support environmental causes, as are younger people, those on a medium income and those who are more highly educated (Shao et al. 2014). Research in the Hunter region from Gow and Leahy (2005) found class allegiance to also be a significant factor in attitudes to climate change, although earlier work on the broader Australian population by Tranter (1996) suggested it is only a weak indicator. Malka, Krosnick and Langer (2009) have also found that a conservative political leaning and a lack of trust in scientists will make people less likely to agree that climate change is happening.

This existing sociological literature is able to give some indication of what might be expected from business leaders when they are asked about the science of climate change. On one level, their positions as professionals and managers might be expected to indicate a commitment to existing economic structures. On the other, their presumed higher levels of education and other
individual characteristics might be expected to influence their knowledge and concern about climate change. The data suggests that business leaders working in greenhouse intensive industries are more likely to be critical of the science, while those in low carbon industries are often more supportive. Overall, however, participants appear ambivalent about the science, reflected in a preference for discussions which frame the issue in terms of efficiency and sustainability. These initial findings inform the rest of the thesis, where the implications of this preference are fleshed out in further detail.

5.3 Believers

With a few prominent exceptions, the idea that climate change is happening was generally accepted by participants. When asked what they thought about the science of climate change, it was common for participants to declare that they had a ‘belief’ that it is happening. Despite each having quite varied views about how we should respond to climate change, many participants used the term ‘believe’ in their interviews:

- Basically I believe in the science, how it impacts. - David, accounting
- I do believe there is a climate change occurring, and that we’ve contributed to it. - Richard, banking
- Climate change – I’m a believer, I know it’s happening, I don’t discount it in any way shape or form. - Mark, fitness industry
- Step one, we believe in climate change, we think it’s a bad thing, we think something should be done about it. - Oscar, international resources

The prominence of these proclamations appears to indicate an adherence to the dominant scientific discourse that climate change is a reality, and in declaring this to be the case participants are also reinforcing this. While the majority of participants stated a ‘belief’ in climate change, however, in line with other research, these declarations do not always manifest in a concern for the issue, support for a carbon price or even agreement about the causes. Participants varied widely in the level of detail and passion with which they spoke about the science of climate change and what they believed was causing it. Oscar, for instance, glibly declared towards the end of his interview that ‘we’re in for climate change – big time’; while Mark discusses his concerns for future generations and aspirations to make changes in his business practices to reduce their carbon footprint. While some offered detailed observations of current changes in the weather that they attributed to climate change, others were more
hesitant to make such claims, or to indeed talk about climate change in detail at all. In this way, intentional or not, the declaration of ‘belief’ can be seen as a means of neutralising the discussion.

5.4 Knowing without knowing - science, climate and weather

Participants who are supportive of the science on climate change tend to work in areas that are not greenhouse intensive. There are three broad categories into which these participants’ industries can be placed. Service industries like law and fitness; industries that are potentially at risk from the impacts of climate change like farming and water; and industries that are promoted as part of the solution to climate change like renewable energy and efficiency consultants. These participants draw on their own experiences to discuss climate change. Those who have researched the area – like Chris, who is quoted above – explain their understanding of the science in detail – while others prefer to talk about their own observations of the weather. This supports previous research which indicates there are a number of factors that influence concern about climate change (Shao et al. 2014; Krosnick et al. 2006; Borick and Rabe 2010; for further detail on this, see Chapter 2). In large part their views on climate change defer to the science, which they clearly see as settled on the idea that climate change is occurring and that it is primarily caused by human activity.

A small number of participants articulate a position on the science of climate change that comes from their own research and knowledge that is directly related to their occupation. Alison is an organic farmer who has been publically active in the debate. She directly links her occupation to her concern about climate change:

    I wonder this myself, is it possible, for anyone in business to not have an awareness, a consciousness, an understanding of ecology, and believe in climate change?
    - Alison, organic farmer

Brendan works as a sustainability manager working in the water industry. In his interview, he described an industry-wide engagement with the potential implications for the industry, and it is part of his job to train staff in environmental awareness:

    ... when it comes to drought and water quality and water demand, all those sorts of things, we’re quite vulnerable so I think the industry sees that it’s important to take a pretty strong stance ... as an industry body there’s no, no scepticism at all.
    ... I’m an environmental scientist, and I’ve got full confidence that what the climate scientists are telling us – is really, an extremely complex and scary sort of scenario.
    - Brendan, water
These participants are strong stakeholders in the climate change debate and their certainty that climate change is caused by human activity is unambiguous. This might be seen as ‘motivated reasoning’ (Myers et al. 2012) whereby participants are highly engaged with the issue, and are stakeholders in alleviating its impact. Certainly there is an occupational congruence here which can also be seen in the participants who either do not believe that climate change is happening or that it is caused by humans. For the participants above, there is a straight forward relationship between the science and what needs to be done. Their views about climate change are shaped directly in this manner, and they are indicative of a strong belief in the logic of science. For these participants, then, the relationship between knowledge and action is reasonably straightforward.

From a somewhat different perspective, many other participants draw on everyday weather observations to explain their concern about climate change. These participants’ comments indicate ‘experiential learning’ where certainty is influenced by one’s own activities and observations (Myers et al. 2012). Adam is a managing partner in a local law firm who surfs, cycles and spends his holiday time trekking. He expresses an underlying respect for the environment, and says that he has noticed changes in the climate:

I think that climate change exists. I’ve surfed all my life. Um and I’m now 47 so I’ve been on the planet a little bit, you know if you do things like surfing you’re really a little bit I suppose more aware of - um you know natural - you know, rhythms of nature in terms of Spring, Autumn … it’s not say a scientific observation, an empirical observation, it’s more, well I mean I just see things that I didn’t see when I was – 5. Or 7 or 8, you know, a young kid. There are climatic sort of differences which I attribute to climate change.

- Adam, law

Adam does say that he thinks the science is clear – but what has really confirmed his perspective are his leisure practices, and the observations he’s made over the course of his life in carrying them out. For Adam, these observations coalesce with the science of climate change to produce a certainty that it is occurring, and that this is likely to be a problem for the natural world for which he has a high appreciation.

Thomas is another surfer who has observed changes:

as a surfer I see the changes that are happening to our weather systems and it’s just something I’ve observed in my lifetime. So when it’s personal, and being a ‘windy’ – you know looking out for the wind all the time – and things have changed since I was a kid, and people I talk to think so too. Now whether that’s a natural cycle or not who knows, but the evidence is pointing towards the fact that we’re doing things to change the impacts, and
even if it’s not human induced then surely we should be saying ‘well let’s stop emitting’ because we don’t need to emit and if there’s a price to pay for that, I think most people would pay.

- Thomas, renewable energy

While for Adam and Thomas, leisure practices have provided them with experiential understandings of climate change, others describe simply observing weather changes over time. David is the CEO of a local accounting business. He mixes memories of childhood weather with observations of the present to explain his certainty that climate change is occurring:

I think anyone our age, or anyone probably 40 and older has realised that the seasons aren’t what they used to be ... 20 [years ago], when we were growing up you could be in the sun all day without sunscreen, nowadays if you put people in the sun for – you know three or four hours without sunscreen you’ll burn and just on winters, just on the change of season ...

I think things used to get colder, you know we used to have a summer, we used to have a winter, you know we kind of have evolved where the seasons you know you can have a hot day in winter, and then you can have freezing days in summer.

- David, accounting

Mark is the CEO of a local fitness organisation in Newcastle. His arguments are similar to David’s, and include the certainty of the causes.

I can’t remember as a kid having the types of storms, the types of weather patterns that we’re having at the moment. You know, I simply just – and I grew up in this region. I just, the ferocity ...

I’m, you know, I’m saying almost weekly we’ve stuffed up the planet when you see the, the huge clouds come over and the types of storms we’re getting, so that’s just from a personal point of view but yeah, we’ve changed the planet.

... I see the people surrounded by me, who would have, sort of teenage and above kids ... where we see it now is really the next generations and even potentially our children’s children in that, seeing now the effect of this will have a bigger effect on those.

- Mark, fitness industry

The prominence of weather observations as a means of explaining concern about climate change may give some indication of the limitations of the knowledge deficit model – that is, that abstracted, scientific knowledge often has little meaning until one experiences the impacts (Weber 2006; Shove 1997). Yet, as Norgaard (2011) has also shown, these experiences do not always lead to the implementation of behaviour change, or support for policies intended to influence this. These participants often make specific comment about the lack of scientific rigour of their observations, yet they are decidedly certain in their concern. Indeed, David’s romanticisation of a time when ‘you could be in the sun all day without sunscreen’ would be clearly countered by looking at current skin cancer rates. These comments, then, suggest a willingness to be convinced by the scientific certainty of climate change if it can be aligned with participants’ current values (Bulkeley 2000; Bellamy and Hulme 2011) – something which may be indicated by Mark’s comments about intergenerational responsibility, or Adam’s enjoyment.
of ‘nature’\textsuperscript{7}. In this case, their views about climate change are complementary to their interpretation of the science, but interestingly the science is not their first point of reference.

While for some personal experiences collide with scientific information to provide certainty, for Dennis, a horse breeder, a third ingredient – concern over land use – appears to influence his perspective. A highly topical development in the debate about climate change in the Hunter region has been the dispute over land use between the coal industry, and farmers, vintners and horse breeders (Connor et al. 2008). In some cases, this dispute has resulted in limitations to, and rejections of, new mining projects (Tasker 2015). Dennis emphasises that he is not against coal mining, but he is concerned about its rapid development in the Hunter region. He also says that he has already observed climate change:

\begin{quote}
There’s no doubt about that ... we’re seeing the effects of climate change already … you can’t keep digging up all the carbon from below the surface and putting it above the surface and circulating it around the air without it having some sort of effect, real effect ... I mean we already have water issues, the weather patterns I mean we feel that they’re different ... the lack of water, the temperature, you know the temperatures have certainly been a bit hotter over the last decade.
\end{quote}
- Dennis, thoroughbred industry

Dennis’ comment, ‘you can’t keep digging up’, is a reminder of the destruction that the coal industry represents to his industry, and here his location as someone who works in a rural area manifests in a concern about weather patterns and the always-present concerns about water.

The diversity of paths through which participants who are certain that climate change is happening and is caused by humans is a somewhat unexpected discovery of the research. While much of the public debate focuses on arguments around the science, very few of the participants here appear to have come to their level of certainty about climate change through this logic alone. Rather, participants who are concerned about climate change appear to have numerous reasons for their concern. While for some it is a result of their occupational position and research, for others it is experiential – a result of leisure practices, closeness to younger family members, or just based on weather observations. In this regard, the data supports the idea that reflexive modernisation has produced a scepticism about science which creates ‘non-knowing’ (Beck and Wehling 2013). This condition means that

\begin{quote}
those who are robbed of their senses and judgment must use the knowledge and non-knowing which they accumulate concerning their lamentable condition as a ‘currency’ to negotiate their… survival in their struggle with the controlling authorities. (Beck 2009: 116)
\end{quote}

\textsuperscript{7} Unfortunately, the limited time for interviews did not allow for a more in-depth discussion about broader values, although these can sometimes be gleaned from the more candid statements interviewees occasionally offer.
To this end the data also supports the concept of individualisation (Beck and Beck-Gernsheim 2002; Giddens 1991); within the context of a lack of reliable sources of information, people are more likely to draw on their own particular networks for authoritative information, regardless of the scientific clarity or reliability of that information.

5.5 Ambivalence

There are a number of ways in which participants’ responses to the science of climate change might be seen as ambivalent (Bauman 1990), and in many ways participants who fit this category are the most dynamic in terms of their ideas around climate change being unpredictable. Participants in this category encompass those who agree that climate change is happening, and that it is largely caused by humans, but are often vague in their discussion about the issue – while briefly acknowledging the science, they quickly then move on to speak about the risks associated with climate change policies, often in some detail. This category does not include those who acknowledge that climate change is happening, but move on to detailed alternative narratives about what might be causing it. So in this sense there is no reason to think that participants might oppose the idea that greenhouse gas emissions caused by human activity is resulting in climate change. Rather, the argument is that the lack of detail given by participants, and the ways in which they seem to balance the problem of climate change against other issues leads to a position of ambivalence in the broader public debate.

A number of participants’ comments on climate change were very limited, confined to a brief reference to company policy. Amber is the climate change spokesperson for a multinational mining company which owns numerous coal mines in the Hunter Region. She had previously worked for a Liberal government minister as their advisor before moving into the industry proper. Amber begins the interview by giving a broad overview of the company’s operations.

Her first mention of climate change is in terms of the company’s strategy:

One of the things I think that we’ve found is particularly with climate change you need to have a look at what the different climate change issues are in the different jurisdictions. They differ. Quite a bit. ... we tend to focus on financial impact, physical impact, and reputational – they’re really the big three. From a risk – a risk perspective.
- Amber, international resources

In regards to the science of climate change, Amber says:

We support the precautionary principle – in relation to climate change. So, you know – you need to take action. And I guess we’re – it does pose um social, economic and
Amber goes on to discuss the fact that the company is investing large amounts of money into a research institute to investigate carbon management. To her, it seems, this is what the precautionary principle entails – a need to protect their business from any fallout related to changes in government policy, rather than environmental conservation. As Anthony Giddens (2011: 55-59) has noted, ‘precautionary principle’ can be used in various ways, and the implementation of the precautionary principle against one risk – such as climate change - may need to be balanced against other risks. In this case, Amber is talking about multiple risks to the business – financial, physical, reputational, social, economic and environmental. In this sense, climate change cannot be dealt with in terms of a purely scientific or environmental impact. So the minimal ‘precautionary principle’ is invoked as the response to discussions about climate change, while there is a distinct lack of detailed discussion about environmental problems.

A number of participants provide similar responses. When the science of climate change is discussed in the interview, they very briefly note that it is happening but quickly move to speak of other, more immediate risks to their industry or particular business that need to be balanced against any efforts to mitigate it. Simon is the CEO of an aluminium company who has worked in the resources industry for nearly 30 years:

> Personally, and this is from a – certainly I know [company] has the same view that - the science is pretty clear to me. That there’s a manmade contribution to the issue; that the CO₂ emissions will need to be abated. It’s how we do it that’s the issue of course, and the complexity of the issue. It’s one of those issues that you start paying the price now for a return in a generation plus. Plus, it requires very strong collaboration across the globe between different nations with those facets, humans have demonstrated to date that they’re not particularly good at.
> - Simon, aluminium

The hesitance to talk in detail about the science of climate change, and the very fast move to discussing the risks associated with mitigating it is of course an indication of the difficulty of the problem. Participants in industries which are greenhouse intensive, as well as the target of environmental and land use campaigns, are in a particular position whereby they may well acknowledge climate change, but they do not want responses to the problem to impact their organisations. In this regard, emphasising the doubt in the science of climate change becomes a useful diversion. This results in ambivalence – that is to say, they are not denying the existence of climate change, or that humans are causing it - but the potential impact of policies to mitigate
climate change presents a barrier to action that may take the form of the ‘undecidable’ and ultimately result in ambivalence (Bauman 1990).

Trevor is the CEO of a Hunter based research organisation that is part of the energy industry. Prior to his position there, he had worked in various types of heavy industry for around 35 years. When it comes to the science of climate change, Trevor makes use of three of the major arguments put forward by people who are usually sceptical that climate change is caused by human activity:

The fact is that, there is an enormous amount of climate variability going on at the moment, um, there is a demonstration of increases in temperature and there's a number of contributive factors that could be causing that ... whether it be solar cycles or we talk about increased volcanic activity or we talked about natural weather patterns of the earth which are historical, we don't quite – we still don't understand. The reality of it is the one we are contributing to is humans. And it's the only one that we can have an impact on and probably my opinion is simple. I still relate to carbon intense industry as something that's not viable or sustainable, we need to alter it.
- Trevor, research

It is somewhat surprising that Trevor’s long discussion here results in him saying that current practices are ‘not viable or sustainable, we need to alter it’. At the same time as indicating doubts about the causes of climate change, he notes that humans are at least part of the problem, and argues that because this is the thing that we can control, we should. Yet the admission of non-knowledge – in the form of uncertainty around the level of human contribution to the problem – leaves a space into which other priorities can move. While Trevor does think climate change is happening, the discussion is much more about the economy than environmental impacts:

I don’t think the businesses are even getting involved with the discussion about whether it’s real or not – they’re accepting it. The argument is what is the severity? And what is the timing? – versus we have more immediate issues in the economy. ... So the question is how do we approach it, what is the most economically viable way that we can achieve a transitional stability?
- Trevor, research

Because the risks of climate change are so difficult to calculate, Trevor depicts a common position among participants; that the decision making process about how to respond to the issue needs to be within an ‘economical[ly] viable way’. This perspective, however, is highly problematic in the case of climate change, and is discussed in more detail in Chapters 6 and 7. Important for this discussion, however is to note that non-knowing, in relation to climate science, means that the fundamental organising principle around responses – for these
participants at least – comes not from within what we know about climate change, but, in large part, economics.

Some participants explained that they actively avoid the discussion about the science of climate change. These participants were often concerned about the issue, but would use avoiding the science as a strategy to encourage behaviour change with different motivators. Danielle clearly articulated a view that climate change needed to be framed around efficiency of resource use more than anything:

> whether it’s caused by man [sic] or not, um and so that, that’s what the debate is around and people are forming sides and getting their scientists out and - with really opposing views – and posing those as questions has set the framework for the debate whereas I actually think that’s not the debate at all. It really should be a debate around ah, we have natural resources that we use, for our daily lives - those resources are finite, those resources are vital, and they’re scarce. What can we do about making them last longer?
> - Danielle, lawyer

As we will see below, this argument can be effective even for those who are sceptical about climate change. Again, however, it has the problem of limiting any responses to climate change to an economic framework, rather than an environmental one. As Stuart Rosewarne (2007) has noted, the smallest amount of doubt provides an excuse for governments to do nothing. If the people who care about climate change are not willing to defend the science, then the parameters for decision making move elsewhere.

Interestingly, this ambivalence about the science can work both ways. James, who is a Business Development Manager for a large consultancy firm working on wind energy among others, also argues that the science does not need to be debated.

> I’m not caught up, on whether the science is right or not. ... the proposition that climate change is happening, I’ve got no hang ups for that at all, you know there’s a lot of evidence to indicate that it’s probably right.
> ... [I]f the fear of climate change means that we have a great empathy and we’re in tune and connected with the planet, collective – connected with nature, well that’s good.
> - James, renewables consultant

James’ views echo the comments about ‘belief’ above and are an important aspect of the non-knowing around climate change – they reveal an acceptance of the uncertainties about the issue and a willingness to enact the precautionary principle. Yet, as is increasingly evident, this is not always the case. It may well be that James’ comments that we might be more ‘in tune and connected with the planet’ is a similar leap of faith in how people will respond to the problem.
Kevin’s views are similar. His family operate a vineyard. He is passionately concerned about the environment, and often argues with his father – who received the original invitation to participate in this research – about climate change.

Things are changing, in my opinion – but that’s my opinion you know as I said, you contacted my father to start with, he’s 80 and he said he’s never heard so much garbage in his life – you know. But that’s a generational thing, I said, well ‘I’ll participate’ just – they just do not believe in climate change. I’m not convinced of the reasons – I’m not convinced that we’re causing [it] – I’m open on that – we could be. You know. We could be.
I think probably the mistake that the scientists are making is they’re calling carbon dioxide a poison, a bad thing, whereas from my point of view, plants really enjoy it.

- Kevin, vintner

He questions the language used by the scientists and overall seems doubtful that the exact causes of the changes can be definitively put down to humans. Interestingly though, Kevin stands out as one of the few participants who were unsure of the causes of climate change, but, as will be discussed later, is very supportive of the carbon tax and increased regulation of the coal industry.

The data here indicates that the status of climate change as a risk is tenuous. Beck emphasises the socially constructed nature of risk. That is, that ‘[r]isks are social constructions and definitions based upon corresponding relations of definition. Their existence takes the form of (scientific and alternative scientific) knowledge’ (Beck 2009: 30 original emphasis). If it is, then, the relations of definition in which power and action are decided upon, this ambivalence from both sides of the debate about climate change does much to explain the inertia around government policy, individual behaviour change and business responses to the issue.

### 5.6 Deniers

It’s like a question from the media, are you a believer or non-believer of, of that, you know that’s like asking me a question about is my personal faith critical in doing this job. It’s offensive. It’s actually offensive.

- Eric, shipping

Although participants who were completely negative about the science of climate change were a minority, they were often very strong in articulating their views. Often, but not always, these participants were from greenhouse intensive industries. The vast majority of their arguments were similar to those found in conservative newspaper columns, suggesting at least an ideological alignment between the two (Bowden and Leahy 2016). In many ways, the participants who were more sceptical of the science were more unified in their views. They criticised firstly the certainty about the science itself, the level of risk involved and whether
climate change was anthropogenic; secondly the sources of information, largely scientists and environmentalists; and thirdly argued that the economy was at grave risk if the government was to implement some of the solutions being proposed – namely a price on carbon.

Hobson and Niemeyer (2013) have argued that although people may not self-identify as a ‘climate sceptic’ there are a range of views that indicate at least some level of scepticism. They note a range of discursive arguments in which climate sceptics engage. These include ‘emphatic negation’ – ‘nobody is in a position to say whether it is real or not’ (these are the ones who say they are climate deniers) (Hobson and Niemeyer 2013: 408); ‘unperturbed pragmatism’ – based on the rejection of policy responses as a result of ‘cost-benefit analysis’ (Hobson and Niemeyer 2013: 403); ‘proactive uncertainty’ – arguing against any policy response because climate change might not be real; ‘earnest acclimatisation’, which emphasises adaptation as a response to climate change and argues that it is a natural phenomenon; and ‘noncommittal consent’ whereby people argue that it is probably happening but emphasise uncertainty about both causes and impacts (Hobson and Niemeyer 2013: 404).

For many of these participants, the perspective that the science is not accurate focusses on arguments about whether climate change is caused by humans, and if so, the extent to which that might be the case. Andrew is the Managing Director of a small coal company. He argues that humans are not powerful enough to have as dramatic an effect on the environment as climate scientists indicate.

Vanessa: do you actually think that climate change is being caused by us burning fossil fuels?
Um. My personal opinion is no. I believe there’s enough science against that theory as there is for that theory. ... we’ve been on this earth a snapshot of time and we just can’t comment what’s happened in the past, you know, there’s a lot of evidence to suggest that the cycle we’re going through now has happened previously so to say that it’s only because of man [sic], I don’t necessarily believe, I’d need more convincing before I’d agree that it’s humans that are doing it, and not the world itself.
- Andrew, coal

Steven, the CEO of a coal company, agrees:

[we] see evidence before us every day of what the climate’s done in the past and it’s done this in the past, and so I think it’s almost conceited to think that we somehow, after this has gone on, that we’ve done that.
- Steven, coal

These participants offer alternative causes for climate change which are prominent in the media discourse about the issue (Christoff 2013)

You look at the impact of one volcanic eruption and the amount of greenhouse gas that releases ... over a billion years, that has always been the way, at every two million, we have
this cycle and this is the first time that we’ve actually felt it. But that’s what I think’s
galvanising people’s perceptions, because they’re hearing about climate change, it’s all
mamnade, it must be us, and then they’re going, ‘it’s so hot’ and ‘it’s so rainy’ and we’ve
got floods and tsunami’s and cyclones, I – that’s really what’s doing it, in my opinion.
- Steven, coal

John, the CEO of a finance corporation, also argues that the idea of climate change has
permeated our perceptions of weather:

I think the general debate is way too emotive. We blame everything – so we have an unusual
week of weather, and everybody goes, ‘oh, it’s climate change’ – it’s bulldust.
... so let’s pick an example in 19... (long pause) probably around 1990 – thereabouts – a
piece of land on the sunshine coast - called Pincushion Island – was attached to the southern
um end of the Maroochydore river outlet and attached to Cotton Tree slash Maroochydore.
Alright. Storms come along, and they shift the whole river mouth. If you go to Cotton Tree
caravan park now and look out to where you could have walked up to Pincushion in 1990,
it’s now attached to the Northern side of the river mouth and it’s attached – and it’s
attached to twin wharves.
... It’s not climate change. It’s the river moving. And the oceans’ shifting. Which they do
(laughing). It’s no big deal.
- John, finance

One aspect of these participants’ interviews is the tendency to list the numerous arguments
against the science of climate change in their discussion. Both Andrew and Steven mention
volcanoes and natural cycles. In some ways, this suggests an uncritical reading of the ideas put
forward by those who deny that climate change is human induced. This willingness to be critical
of only one side of the argument - that climate change is anthropogenic - suggests that these
participants, too, are drawing their conclusions from sources other than the science. That these
ideas are prominent in the media, but not so much in the climate science, indicates that the
position has been taken from the former. In a remarkably similar way to participants’ claims that
environmentalists take their informational cues from emotions, then, these participants appear
not to have engaged with the climate science in any detail; rather, they have taken up the
sceptical discourse from conservative media without actually questioning it.

Other sceptical participants appear to use their own social networks for information on climate
change. Anthony is the CEO of a large consultancy that operates in a range of areas, including
greenhouse accounting and sustainability. He was the strongest climate sceptic among
participants. His reasons for disagreeing with the science range from a distrust
of academia, to
arguing the finer details of the science, and that the process of climate science has been
politicised:

I’m a sceptic and I’m a sceptic for sound - for technically scientifically trained reasons.
... if you start analysing these hundreds of thousands of scientists – who believe in all this –
if you start looking at them and peeling them away one by one, you’ll find that none of them
have actually done any work in this space, they’re all believing it and all passing on, saying ‘Oh I believe in it, and I’m a scientist’ but they haven’t actually partaken in the research, they don’t actually understand the non-linear mathematics involved in these computer models
- Anthony, consultancy

Anthony is vitriolic in his assessment of the way the public debate about climate change has progressed. He is notable for both the fact that he self-identifies as a ‘sceptic’ as well as being unique as a participant who discounts the science of climate change, but is working in a business industry that stands to make money from initiatives such as carbon trading. He is clearly critical of the idea of ‘belief’ for epistemological reasons. While he recognises that there is a scientific consensus about climate change, he does not believe that this consensus is based on good scientific arguments. The only people who can assess the science, according to him, are those who understand non-linear mathematics. The implication is that such experts on non-linear maths are equally divided on the topic – the apparent consensus among scientists represents only one side of the debate. Anthony actually speaks of his work colleagues’ disapproval of his views, which all suggest that his views are related to values outside of both the profit motive and his everyday work. The following gives an indication of where his views might come from:

[T]here is a significant number of scientists who don’t believe in it, and nobody listens to them, they’re quickly put down … But from a business side of things if people want to waste their money on this, well I’ll help them spend it. Because I do believe, what I do believe in is minimising footprint … Ah on the environment – ok … That’s, that’s a good thing to do.
- Anthony, consultancy

Anthony’s view that climate change is not happening, that action to reduce greenhouse gases will be damaging to the economy and that scientists cannot be trusted fits the idea of ‘emphatic negation’, that is, that he absolutely denies there is any truth to the idea that climate change is happening (Hobson and Niemeyer 2013: 403). Further, he expresses a ‘silent majority’ claim in arguing that dissenting voices are silenced in the public discussions on the science of climate change; something similarly argued by commentators such as Andrew Bolt (2009a) and Miranda Devine (2009). What is notable here, though, is his concern for ‘minimising [the] footprint … on the environment’. This fits with the views of participants mentioned above who argue that we should sidestep the debate about the science to move forward on the necessity for actions. But as we have seen above and will discuss in later chapters, the implication of this sidestep is that measures can only be supported if they are justified whether or not the science is true. In other words, resource efficiency measures rather than measures that might have a negative economic impact. This is a very limiting framework for action if the science happens to be true.
Another aspect of Anthony’s comments is the view that sceptics are being silenced. This is also put forward by Eric, the CEO of a shipping organisation which is strongly connected with the coal industry. Eric is very sceptical of the science and expresses a range of suspicions around the whole debate:

[W]ho is the independent? Who is the almighty independent, wise person who can cut through it? That’s where I’ve struggled.
... I actually think that the scientific community and what’s around that is heavily defined by the mantra of what we’re expected to deliver and if we don’t do that we’ll be ostracised. So deep down I have, I have some real fear around – before it even did its work, is that where it was going to head to?
Did they have as part of that group a balanced number of scientists who agree or disagree, because I read work where there’s equally another 300 eminent scientists who don’t agree with that work – so I go, too hard. It’s too hard for me.
- Eric, shipping

Where Eric differs to Anthony is that he is sceptical of the motivations of everyone involved in the debate. Eric expresses a desire for a ‘balanced’ discussion. In this sense, Eric may be a ‘true sceptic’, a victim of ‘non-knowing’ (Beck 2009: 115-128) who is paralysed by the competing and ever expanding knowledge base around climate change, and therefore is unable to make sense of it. While both Eric and Anthony express a desire for a balanced discussion, the Australian Centre for Independent Journalism has found that in 2011, 32% of articles in the Australian news rejected or questioned the idea that climate change was anthropogenic (Bacon 2013). Further, as Boykoff and Boykoff (2007) have argued, in many ways the desire for ‘balance’ and controversy lead the media to over-report the uncertainty of the science.

While Eric expresses a genuine doubt about the science of climate change, he aligns himself with sceptics in a very aggressive way, engaging with the ongoing debate around the differences between scepticism and denial:

... stop painting us as Neanderthals, as non-thinkers, as sceptics, as non-believers
... the demonization of ‘don’t tell me what to think or do’, but boy in this part here, ‘don’t you dare put your hand up to say I disagree or we’ll tar Tony Abbott with the sceptic, the denier, the mad monk, the’ – it all becomes very personal and not an environment that says we are open to a discussion.
- Eric, shipping

This theme is also taken up by Steven, the CEO of a prominent coal company with numerous operations in the Hunter.

I believe in anthropogenic um climate change, it’s whether it’s the five percent of the fringe of climate change or whether it’s the 90 percent driver is where I disagree with people I guess. My view is it’s at the fringe.
- Steven, coal
The terms ‘sceptic’ and ‘denier’ are important ‘discursive tropes’ in the public realm (Hobson and Niemeyer 2013; see also Christoff 2013). As Christoff (2013) notes, climate denial has little credibility in the scientific field, but is salient elsewhere and has been a major impediment for climate policy in Australia. ‘Denial’ is the strongest term used against those who question the science of climate change, and can, as participants have pointed out, be used as a dismissive mechanism in the struggle over definitional power. On the other hand, as Hobson and Niemeyer argue, scepticism ‘is a purposeful and incremental exercise in intellectual humility, which explores the fallibility of one’s own knowledge’ (2013: 397). In this sense, scepticism fits well with the idea of non-knowing, and may not always lead to absolute denial that there is a problem – it at least allows for the implementation of a precautionary move towards, in this case, lowering greenhouse gases. Yet here participants are attempting to distance themselves from both; preferring a more detailed explanation of their perspective and to avoid the labels used. This mechanism is a clear entrance into negotiations in the ‘relations of definition’ described by Beck (2009: 24-46) over a contestation for legitimacy for their perspective that participants feel has been denied them.

5.7 Discussion

Every one believes we need to do something about climate change and no one has a clue how much it’s really going to cost, it’s going to, it’s going to be very difficult, it’s going to be very expensive – much more so than is typically discussed in public fora.

The Greens position is – the science says that we need to reduce emissions at this trajectory in order to avoid dangerous interference with the international – with the climate system. Um so therefore we need to set our target, on that trajectory. And anything above that trajectory is unacceptable. So that’s sort of their position. … Which is logically all correct.

- Oscar, international resources

Oscar is unique in this expression that the science is saying we need dramatic cuts to greenhouse gases but the economics must take priority. In this he fits Hobson and Niemeyer’s (2013: 403) ‘unperturbed pragmatism’ model: that climate change is happening, but there is little that can be done and there are more important issues that need to be dealt with. Oscar is in fact surprisingly forthright in his views. Few other participants are.

While other participants engage with the science, there is little doubt that the aspect of non-knowing involved in climate science leads participants to draw on other knowledge systems to make sense of how to respond. Although there is undoubtedly great interest in beliefs about climate science, it is clear from participant responses – if not the lack of government action on the issue – that the science is but one field upon which the debate about climate change is fought (see also Christoff 2013).
Participants who are concerned about climate change engage with the science from a range of different knowledge bases. Very few speak in detail about the debates around the science. The prominence of weather observations may be indicative of a move away from scientific certainty as a means of knowledge formation. But they are also rightly criticised by those more sceptical about climate change for being unreliable indicators of climate change. Indeed, if we had to wait for the general population to be convinced of climate change as a result of weather observations, modelling from the US indicates that it would take between 21 and 86 years for the population of America to reach certainty that climate change is happening (Szafran, Williams and Roth 2012). Beck may attempt to disconnect the power of knowledge from its material base, in doing so he underestimates the extent to which those with material wealth are already linked into knowledge institutions (such as the conservative media), and the ways in which this plays out through the struggle of dominance over the relations of definition. In this way, non-knowing creates an ambivalent vacuum whereby the relations of definition are never settled, and the dominant economic paradigm remains in place. As Thomas aptly puts it:

I think there’s been a real backlash in the community against this climate science towards the scepticism. Because it’s easy to be sceptical – if you’re sceptical you’re not accountable. You don’t have to do anything, so why should I have to pay a carbon tax? Why should I support renewables when I don’t believe it’s even happening, so let’s just keep using coal.
- Thomas, renewable energy
Chapter 6: Eco-efficiency, the carbon tax and power - limits to ecological modernisation

6.1 Introduction

Of the numerous perspectives offered as a potential solution to climate change, ecological modernisation is the one that is most often put forward by environmental groups, governments, and sometimes industry itself, as the most viable. The ‘win win’ scenario offered by ecological modernisation in claiming it is possible to de-couple environmental damage from economic growth is seen to be appealing for businesses concerned about the potential economic impact of environmental protection measures (Norgaard 2011). As such, ecological modernisation emphasises the potential for ‘new relations between [the] state and markets’ (Christoff 2013: 18). With its base in sustainable growth, the language and intent of ecological modernisation – efficiency, innovation, technological improvement – has been popularised by the notion of ‘natural capital’ (Hawken, Lovins and Lovins 1999) – and measures fitting the ecological modernisation paradigm have been favoured by governments worldwide. These include state-sponsored efficiency programs, investment in research and development, subsidised solar power and, crucially, market mechanisms to reduce greenhouse gas emissions.

As discussed in Chapter 2, the idea of ecological modernisation has developed over some time, and is in a constant state of revision and contestation. Ecological modernisation can range from small scale ‘technological adjustment’, to policy discourse and, at a seemingly more radical end, a belief system which argues that ‘environmental protection is a precondition of long-term economic development’ (Shao et al. 2014: 107). As Christoff (1996) points out, this range of interpretations of ecological modernisation can be seen on a scale from ‘strong’ to ‘weak’. At the stronger end, governments may institute structural reform, increase regulation and force the internalisation of ‘externalities’ such as environmental problems; while at the weaker end governments favour market facilitation and take a minimal interventionist approach (Howes et al. 2010).

Ecological modernisation has been criticised on a number of levels. Firstly, the major problem identified with ecological modernisation is the fundamental idea that capitalism can be reformed. As Buttel (2000) argues, to a large extent it was this differentiation with previous environmental social theory – such as the treadmill of production (Beck and Wehling 2013) and the New Ecological Paradigm (Catton and Dunlap 1980) – that made it so appealing. Yet, like its
forerunner ‘sustainable development’, the ecological modernisation perspective is criticised for not taking into account any limits to growth (Swyngedouw 2010: 310). It has also been criticised for being overly optimistic about the possibilities for environmental protection through technological development and eco-efficiency (Pataki 2009; Mol and Spaargaren 2000; Latour 2013).

While these debates are informative as far as evaluating the capacity of ecological modernisation for environmental protection, very little research has been done on the acceptability of the main tenets of ecological modernisation to the business leaders it presumes will be implementing many of the changes proposed. As Pataki puts it, much of the research makes use of an ‘exclusively rationalist frame assuming enlightened corporate managers who relatively easily realise the business opportunities lying in eco-efficiency improvements and change their language accordingly’ (2009: 84). This chapter explores the range of participant responses to three key features of the ecological modernisation programme: eco-efficiency, technology, and the transformation of state-market relationships. Beginning with an initial analysis of the general discourse of ecological modernisation, the chapter turns to these key features of ecological modernisation, in the context of responding to climate change, in order to gain a deeper sense of their acceptance by participants.

6.2 ‘In-principle’ support

An initial analysis of participant interviews reveals a generally positive perspective on the key themes of ecological modernisation, especially around efficiency and the use of market mechanisms – as opposed to government regulation – to respond to climate change. Simon is the CEO of an aluminium company, and early on in the interview, he articulates the perceived ‘win-win’ scenario advocated by the ecological modernisation perspective:

[M]any of the drivers for reducing emissions are the same drivers for improving business efficiency and process efficiency so we have been doing that some for some time, and with good results. And that won’t stop, it will continue but the critical issue is a lot of that work has got the aluminium smelters in Australia to a pretty good spot in terms of overall emissions.
- Simon, aluminium

It is unclear from Simon’s comments whether the motivation for such changes is environmental protection or economic efficiency, and in this sense his argument that efficiency measures are part of the mainstream idea of business practice in general could be disputing the need for ecological modernisation at all. What is evident here, however, is an overall approval of efficiency measures as a means of environmental protection.
Additional to his support for efficiency, Simon argues that a ‘well-designed’ (‘and I emphasise well-designed’) emissions trading scheme would be an acceptable approach to climate change in particular.

The advantage of a well-designed ETS is that I do believe it’s the lowest cost; to have a market to find the lowest pathway there and also the pathway leads to a finish point.

- Simon, aluminium

This is also supported by Amber, a senior executive in an international resources company, who supports such a measure because it would be the lowest cost option for climate mitigation:

We think it’s best to go with market based policy measures, because they’re going to be the most efficient – and the big driver there is least cost abatement.

- Amber, international resources

Such positive perspectives on the emissions trading scheme, however, were couched in very particular terms. At the time of the interviews, both the aluminium and coal industries were still in heated negotiations with the government about the particulars of the scheme, so in some ways it is likely that they were not wanting to compromise that negotiation by being seen as too oppositional. If this was the case, it was largely successful as both the coal and aluminium industries came out of that process with generous concessions. This observation need not, however, undermine the point that these participants indicate a clear preference for ‘market based’ measures as opposed to other measures that may include more drastic government intervention (and therefore fit the stronger end of the ecological modernisation spectrum). Market based measures will give them the flexibility to respond with the lowest cost measures possible – a key advantage of weak ecological modernisation in terms of being acceptable. The dramatic response of industry to the carbon tax, then, indicates a view from participants that the legislation has gone too far; perhaps beyond the acceptable goal of giving the appearance of protecting people from environmental harm (White 2004: 279) to actually attempting to be effective.

The implementation of new technology is also crucial for businesses wanting to work within market-based mechanisms, as well as more generally respond to environmental problems. While there has been somewhat of a withdrawal within ecological modernisation theorists on their dependence on this argument (Christoff 2013), it is clear that within businesses technological development is required if they are to maintain profitability while responding to ecological restraints. New technologies are needed for business growth as well as improving efficiency. Ryan – a general manager with an aviation company – describes the connections between efficiency, business models and technology in relation to his industry:
Obviously engine technology is all about reducing fuel use and noise at the same time, and there’s been significant advances in them so all the new technologies are becoming clearly more fuel efficient, clearly less noisy and so they’re – those things will continue rolling in, as their improving their – the age of their fleets anyway. But again, they have a very strong mandate to do those sorts of things because it’s in their interest, in their cost base anyway. So, it’s a win-win.

- Ryan, aviation

Although not all participants have such a positive view of the current technology available to them, it is an ongoing theme of the interviews that technological change is crucial if we are to deal with climate change.

For participants who show a strong level of concern around climate change, the ecological modernisation path is seen as necessary – it is one that both business and the public relate to, and possibly the only way of mitigating climate change. Lisa, who works for a major maintenance company, speaks of her perceptions of how people are responding to climate change:

People are thinking ‘It doesn’t just make sense to the environment, it makes sense to me, dollars wise, to make these changes’, which I think then encourages people to do it. Especially business, business can see that there’s money to be saved and it’ll make a difference to their bottom line so, now, it’s really worthwhile, you know what I mean – even if they don’t believe that it’s going to make a difference to the world or anything like that, it’s going to make a difference to their business – which is good.

- Lisa, maintenance

On the surface, then, the key ideas of ecological modernisation are uncontroversial among participants. The general narrative of efficiency and technology working together to save money, increase profits, and protect the environment, is a well understood and accepted perspective to take on the issue. Such a response is also noted by Gendron (2012). However, she also notes that participants in her study commented on the limits of the extent to which they were willing to take this up, and they placed a considerable emphasis on governments as being primarily responsible for environmental issues. Many participants in this study also reflect these attitudes. The remainder of this chapter will explore how participants place limits on the extent of ecological modernisation that they see as possible – or even desirable – and how this impacts on their responses to climate change.

6.3 Eco-Efficiency

A popular conception of ecological modernisation is the ability for eco-efficiency to deliver environmental and economic benefits. The argument is that while some industries may be curtailed, the development of new technologies will assist in maintaining economic growth as well as allowing those industries to improve their environmental standards – presumably
imposed by governments. As Jänicke argues; ‘the demand for environmental efficiency is likely to grow, thereby providing innovators with incentives to invest in environmental technologies’ (2004: 202). The effectiveness of eco-efficiency, however, has been challenged as being overrated, as well as failing to bear out any real results (Young and Tilley 2006; Pataki 2009). Young and Tilley (2006: 403) point out that the emphasis of ‘easy gains requiring limited investment’ masks other environmental impacts which may be more detrimental. While many participants argue that climate mitigation through eco-efficiency can save both business and individual consumer’s money, they also note that these benefits have limitations.

The most common response from participants when discussing such limits is the cost of investing in efficiency. Mick and Narelle work for a care home which has made significant investments in its sustainability program. They are jointly charged with leading a special committee that implements organisation-wide initiatives, and speak passionately about their roles. They are very forthright when asked about any barriers they face:

*Vanessa:* So have you found implementing some of the things that you’ve done – have there been particular barriers or, you know?
*Narelle:* Um cost pretty much and trying to find funding grants.
*Mick:* Cost and legislation.

- Mick and Narelle, aged care

While Narelle and Mick are enthusiastic about the changes they have made in their work place, they note that much of their time is taken trying to find grants to pay for them, which is further hampered by bureaucratic processes and changes to government policies. As well as a lack of trust in government, this reliance on outside funding can be seen as a somewhat contradictory argument to the idea that environmental protection can save money, because there is a limit to either the willingness or ability of the organisation to invest in eco-efficiency measures. This can be seen to reveal a lack of trust in the overall thesis that we can use eco-efficiency to overcome the costs of environmental protection, and shows a failure of this perspective to convince even those who are working in environments that are supportive of other ecological modernisation measures. Partly because of its dependence on government funding, and the costs involved, this example gives a critique of the effectiveness of eco-efficiency.

A further critique of eco-efficiency is its emphasis on easier, simpler changes. As Young and Tilley argue, this is seen to support ‘a ‘managerialist’ approach to corporate sustainability, in the sense that solutions being generated are business centred and not environment or sustainability centred’ (2006: 404). The problem they see with such an approach is that eco-efficiency hits limits when it comes into conflict with economic barriers, so that business people are less likely
to implement anything that does not have a fast enough payback. Participants in this research who have made changes in their businesses often cite this limitation. John, who is the CEO of a finance company, describes an audit process through which his organisation went. As he points out, decision making around some issues was delayed because of the cost:

The ones [changes] that we have made is we watch our use of power and turn off power points where appropriate. We don’t turn on lights unnecessarily – so here, in this room there’s plenty of natural light. We have upgraded some equipment in our kitchen so that it’s more energy efficient - so the fridges and ovens and stuff. Um – what else?

It’s primarily practical – was it practical, was it cost effective, could we do this without major disruption to the actual running of the business?

... The issues in relation to the lighting, which would have cost substantial money, like $28,000 – the landlord has decided not to go ahead with that. The benefits to us in terms of dollars would have been minimal over the next period of our lease, but it would have been substantial to the owner over a longer period of time, so his choice was to – ‘I’ll delay that. I may do it, but I’ll delay it’.

- John, finance

Ryan, also, notes that they will not look at retrofitting as part of their sustainability program, because it cost too much:

We’ll look at well, grey water, those sorts of things but we won’t do that until we start to look at new facilities – for us to try and retrofit – which is probably my point – into existing facilities can sometimes be quite cost prohibitive whereas when you’re looking at new facilities, you can build it in as part of the construction and make it a lot more attractive from that point of view.

- Ryan, aviation

Leaving aside the question of whether they had considered embedded energy as a problem for new purchases and developments, it is noteworthy that while both of these participants are willing to take on sustainability measures, they are not willing to spend extra money on the process. As Pataki (2009) argues, such limitations are commonly cited, and show the persistence of the dominant paradigm of the profit motive in business, rather than a willingness to reconceptualise the ideas of environmental responsibility into business in a meaningful way.

This is where the argument whether business people’s motivation is economic or ecological becomes important. Consider the following comment from Anthony, the CEO of a large consultancy company:

I do believe, what I do believe in is minimising footprint. Ah, on the environment – ok. That’s a good thing to do. Minimise our footprint, maximise the efficiency of our industrial processes. Minimise waste– maximise the ongoing support of ecology. And all those things, all those things that are traditional green things I believe in. I really hate this, the lies and the fear that comes from the greenhouse – supposed greenhouse effect.

- Anthony, consultancy
Anthony’s argument is similar to that of Simon, from the aluminium industry, which is given above. There is a ‘win-win’ benefit in eco-efficiency because it makes good business sense, and supports the environment. But Anthony’s add-on – that the ‘greenhouse effect’ is a ‘lie’ – gives a very specific context in which decisions about efficiency are made – that is, if there is a tension between economic and ecological commitments, then any concern about the environment is likely to be deprioritised.

Thomas, who works in renewable energy development, sees efficiency as the key motivation for change:

“I’m not saying that we are [causing climate change], but I’m saying that if we are, we should do something about it. I’ve always been an advocate for vehicles that have less emissions, for power that has less emissions, for more efficient ways of doing things, energy efficiency, renewables. I’ve always felt that that’s the way we should be going anyway, even if that’s [climate change] not something we’ve induced. And I wouldn’t be prepared to have even a stab at what those impacts are percentage wise – because it might only be a very small impact percentage wise and I’m sure it is, particularly when you look at things like bushfires and volcanoes and those sorts of potential climate impacts, I’m sure, well there’s a lot of ways of saying this is manmade [sic] and this isn’t, but then there’s an interrelationship as well. So it’s really difficult.
- Thomas, renewable energy

Like many others, Thomas questions the cause of climate change but seems content that the discussion about the science is not important, assuming efficiency will deliver the same outcomes. Eco-efficiency, then, is fine while it is within the limitations of traditional business models. This is why the central argument about ecological modernisation as being complementary to the growth economy is so important – yet we see in participant responses here that there are numerous doubts about this.

Oscar, a senior executive in a multinational resources company, is extremely sceptical about the ability of efficiency to enable economic growth to continue in a carbon constrained environment:

Efficiency will give you a little bit. Let me take you through a very simple example which looks just at the energy sector, right so not any other sector, just stationary energy...
if you look at just the energy sector, and consider what emissions are a function of ... emissions are a function of global population, right, times the GDP per capita ... times emissions per unit of energy ... and you say ‘ok, let’s look forward to 2050’, right so people generally say let’s pick a number of 50% reduction by 2050, right? Projections are, in 2050 the population will be about 150% of what it is now, about 9 billion, right, if you assume about 1 or 2 percent, year on year, economic growth, global economic growth, which is what we’ve done for the last hundred years, the GDP per capita will be 220% of what it is today, right? If you assume that we’re able to be 40% more efficient than we are now,
energy efficiency wise, right, which is extremely optimistic but let’s just say that we can – our economy uses only 60% of the electricity it uses today for the same output ... What does that mean in terms of what the energy sector needs to look like? ... you can’t have any coal, you can’t have any gas – all you can have, is, well not that you can’t have any, but the average needs to be down there so you need a majority of all of these renewables, nuclear and coal and gas with carbon capture and storage. You can’t have just lots and lots and lots of coal like we have now.

- Oscar, international resources

Somewhat ironically, many of the more radical criticisms of ecological modernisation have made the same point. York and Rosa (2003) point out that because the pace of industrial growth is so fast, it often cancels out the benefits of efficiency measures. This is known as the ‘Jevon’s Paradox, a situation where greater efficiency in resource use leads to increased consumption of that resource’ (Hobson and Niemeyer 2013: 280). This has been found across numerous industries in various case studies, such as the Japanese car industry, the coal industry, and across modern economies more generally (Hobson and Niemeyer 2013; Malka et al. 2009). So, if eco-efficiency in itself is not believed to be as cheap or effective as ecological modernisation claims, it may be worth looking at completely different technologies.

6.4 Technology

Like the concern about the cost of environmental protection, the debate about how a growth economy can be powered with low carbon technologies is an ongoing and prominent one in relation to climate change. One of the key disputes here is whether there is a marketable solution to climate change that allows current levels of consumption and population growth to continue. As Jänicke (2004) points out, this is key to a successful ecological modernisation strategy, yet efficiency in particular has stringent limits. Prominent Australian environmentalists like Ted Trainer (2007) argue that this is not possible, while many others have controversially supported nuclear energy as a means of resolving the issue. The argument is that while there are several renewable energy options, they have their own limitations in terms of both the resources needed to make them as well as technological barriers related to energy storage and distribution. As with the ecological modernisation paradigm more generally, participants are broadly supportive of technological innovation – especially those who work in sustainability management. At the same time, however, the limitations of technology are a common theme in interviews. Again, these limitations are recognised in terms of the costs of different technologies, as well as their actual ability to deliver positive environmental outcomes.
Chris is possibly the most positive participant in relation to ecological modernisation. He is the sustainability manager of a large commercial real estate organisation, and is pushing for strong greenhouse gas reduction goals in his organisation.

We still need electricity in our lives so we just want it coming from greener sources ... but well put it this way, the technology is out there, it exists and we could produce a lot of power on our rooftops. It’s just that right here, right now it’s not commercially responsible for us to do it.

- Chris, commercial real estate

While in Chris’ view, renewable energy meets the ecological modernisation criteria for technology as being readily available, the expense is not something the company is willing to bear. The cost of renewable energy is in contradiction here with the responsibility to shareholders to produce the maximum possible profit:

We’re a public listed organisation, with investor fiscal responsibilities, so which gets to the whole commercial aspect so you know we could go on, procure say green power, across all of our sites, potentially, but that’s a 30% cost increase, you know we spend a reasonable amount of energy and that gets worn either through our shareholders or it’s passed onto tenants, which has an impact on rent.

- Chris, commercial property development

Chris’ comments are a classic example of what Pataki (2009) means when he claims that ecological modernisation ‘is black-boxing the internal organisational aspect of ecological problems by not addressing the issues of the nature of business organisations in general and their dominant form, the corporation, in particular’ (Pataki 2009: 84). He is highlighting a fundamental contradiction between being a ‘publically listed company’ which has a duty to shareholders and the ability to pay for environmental protection.

A further argument about the limitations of renewable energy technologies is about its ability to meet demand. James is a business development manager for a large consultancy firm, and a strong supporter of innovation in the company. He is enthusiastic about nuclear power, but does not see renewable energy as being able to meet demand:

I think one of the big problems is baseload. Now gas, and coal, and nuclear, can give you the baseload. The other fellas I don’t think can, from my reading. So I guess that’s where I probably see it.

- James, renewables consultant

Climate change in particular clearly raises specific technological problems for the types of solutions suggested by ecological modernisation. This is largely because the growth economy is so dependent on electricity. As Trainer (2007) and others have argued, the abilities of technology, much like efficiency measures, are unable to keep up with demand. It is not
unreasonable to expect that the more technologies that become available, the more likely is the demand for growth. Whether renewable energy has the potential to provide base load power is still under dispute. It does not, at the moment, do so. The dependence, then, on existing technological fixes of the ecological modernisation framework are exposed in this instance as vulnerable.

At the time of the interviews, a major option being promoted by the coal industry as a potential way of reducing their greenhouse gas emissions was carbon capture and storage (CCS). The industry was undertaking a major public campaign after renaming 'clean coal' technology - which involved the washing of coal so that it was 'cleaner' to burn - to include the potential to store the carbon dioxide that is released as part of the burning process in underground aquifers. Environmentalists sought to expose the dangers of the process, such as the potential for leakage, but also argued that the technology did not yet exist, while the government provided significant funding for research and development of the technology. Given that context, Oscar was surprisingly frank about the limitations to CCS:

Well look, they’re [carbon capture and storage technologies] available now but they’re not commercially viable. They are a licence to lose your shirt, basically. They’re expensive to build, they’re expensive to run and you produce electricity which is way too expensive and it’s not competitive in the market.
- Oscar, international resources

He later goes on to say that they might be cost effective by 2030. Far from the optimistic vision for potential technological innovation, then, Oscar’s comments show a hesitation to commit to change before the technology is available. It also highlights the tensions between the existing, industrialised economy and the goal of an 'ecologically' modernised one - that technological change is often more difficult and expensive (to paraphrase Oscar’s own words) than might be expected.

The potential for CCS is not the only technological barrier highlighted in interviews with the mining representatives. Fugitive emissions from coal mining are also an area where they say there is limited potential for emission savings. Steven, the CEO of an Australian coal company, says that the carbon tax should not be applied to the fugitive emissions from open cut mining for this reason:

The whole point of putting an ETS, carbon tax, whatever, is to try and change behaviour to come up with technologies to solve issues to over time reduce carbon footprints. There is no answer, particularly in open cuts, to reduce fugitive [emissions]. There’s currently no technology to solve it so there’s no point in proposing something that embraces it when there is no solution.
- Steven, coal
Although Mol and Jänicke (2010) have argued that later theorists of ecological modernisation have sought to reduce the importance of technological innovation, the particular problems highlighted by participants here are evidence that they still see technological change as being central to any approach to environmental protection that will allow an ongoing growth economy. Participants’ see measures such as the carbon tax as being detrimental to their business operations, and because of this, as is discussed below, many oppose its implementation.

6.5 Transformative relationships

Because ecological modernisation does not seek to challenge the status quo, its proponents argue that it will bring about new relationships between the state and the ‘market’, who will work side by side in developing policies towards environmental protection (Christoff 2013; Latour 2013). It is argued that ecological modernisation ‘implies a partnership in which governments, business, moderate environmentalists, and scientists cooperate in the restructuring of the capitalist political economy along more environmentally defensible lines’ (Dryzek 1997, cited in Swyngedouw 2010: 309). This idea is similar to Beck’s (1997) concept of ‘subpolitics’, where a joint realisation of the risks being created through the process of industrialisation result in a radical rethink of the way society is organised. Those more sceptical of whether such processes are occurring argue that in the ecological modernisation literature in particular there is a gap where there is a tendency to ignore issues of the institutional power of business (Pataki 2009).

The implementation of the carbon tax in Australia is a good illustration of this. The process of engagement between industry, the public and the government was at first cautious, and later hostile, despite the final outcome of the carbon tax being relatively weak (Spash and Lo 2012). The significant role that early debates around the then Carbon Pollution Reduction Scheme played in the downfall of Kevin Rudd’s Prime Ministership is testament to the opposition to such schemes (Chan 2012). The emphasis from both the public and industry in relation to the carbon tax has been much more about the potential expense and risks to economic growth than about the environment, revealing a deep distrust of the government and the process of developing the carbon tax, but also a strong resistance to change.

The limits of peoples ‘willingness to pay’ is evident in both business and individual approaches to climate change. Surveys in the US, UK and Australia consistently reveal that while people may be concerned about environmental issues, they are not likely to agree that they should pay the
costs themselves (Saad 2009; Ipsos MORI 2010; Hanson 2010). As environmental advocates in their workplace, it might be expected that people such as Mick and Narelle would be part of the smaller sample of people who are willing to pay. Interestingly, however, when the interview discussion changed from initiatives in the workplace to the carbon tax, there was a rapid movement from environmental advocate to consumer. While they are concerned about environmental issues, there is a strong resistance to paying for any changes themselves.

Mick: if you want on orange or you want something that’s overseas that’s going to come, you know from across the other side of the world, pay a tax on it by all means, you know, it’s not something you have to [have] – but everybody needs electricity, everybody needs water, you know why put so much tax on them – so much emphasis on tax like that? Narelle: Where’s the compensation? Because in a lot of cases your compensation is going to the lower income earners and those of us who are in the middle-
Mick (interrupting): Mmm – always cop it Narelle (raises voice): Always cop the tax but never cop any of the rebate because apparently we earn too much, but we don’t, we’re probably classified as the working poor if you want to look at it that way because we – we miss out on all the benefits that the others get, we’re not in the bracket that the higher income earners are in so they can get out of it, so we cop the tax and that’s all.
- Mick and Narelle, aged care

In contrast to many other participants in the research, Mick and Narelle’s evocation of the problems of the ‘middle’ and the ‘working poor’ are strongly aligned with the anxiety of middle Australia depicted in Clive Hamilton and Richard Denniss’ (2005) work on overconsumption, as well as Pusey’s (2003) middle Australia. Speaking from this personal position, they are deeply concerned about the costs a carbon tax might have on them. This is consistent with their practice at work also, where many (although not all) of their initiatives are dependent on outside funding. These comments from Narelle and Mick highlight two distinct problems with ecological modernisation. Firstly, there is a strong distrust in the system and government which is supposed to be implementing policies to protect the environment. Secondly, there is a distinct lack of ‘willingness to pay’ for environmental protection from consumers themselves. So for these participants, it is not the role of either the individual business or consumer to make changes to protect the environment. In line with Gendron’s (2012) business people, and Gow and Leahy’s (2005) research on people in the Hunter region, Mick and Narelle argue that the primary responsibility for environmental protection – and paying for it – lies with the government. At the same time (and also in line with Gow and Leahy 2005) Narelle’s comment about compensation relates to the government saying they will compensate consumers, and shows a strong distrust in relation to how the government will handle such an issue. It is noteworthy that Narelle and Mick make no mention of being able – or willing – to reduce their own electricity consumption in order to make up for any extra costs imposed. So here a lack of
trust in government and a belief that environmental protection is expensive, combine to create a strong barrier to the carbon tax. The possibilities for eco-efficiency, it seems, effectively disappear when they are discussed in terms of personal change.

While Mick and Narelle speak from their own perspective, numerous participants raise the spectre of growing costs for the consumer as a problem for the carbon tax. Anthony, who is opposed to the tax largely because he is sceptical about climate change, also predicts the very response from the general populace that Mick and Narelle express above:

[talking about how people will respond to the carbon tax] ‘I don’t like this and by the way ah my power bill’s gone from $300 a month to $1,000 – I don’t like that either. Ah and you know I can no longer buy cheap TVs because ah you’ve now got to buy these Rolls Royce TV’s that don’t use as much power.’ And so people will start to react.
- Anthony, large consultancy

Amber sees this as a political problem:

If there’s anything the opposition has done, they have shone a light on um, ‘well what’s it going to do to my hip pocket?’ So she [Julia Gillard] needs to handle that very, very carefully, because that could actually turn around and bite her. But I mean the ...the big question I think going forward is can she, can she um address this issue of household costs
- Amber, coal

These perspectives show a more complex picture than a straightforward ecological modernisation view on climate change allows us to envisage. On the one hand, both Anthony and Amber have reason to be concerned about the carbon tax in particular and to argue against it. Anthony is steadfast in his opposition to it, and, as he does not agree that climate change is caused by humans, it makes a lot of sense for him to argue against increasing costs when he does not think it will improve the environmental outcome. Amber, on the other hand, has a professional interest in the debate more broadly, and may be simply stating her own political analysis of the situation. Both are referring more generally to the broader public debate on climate change. Proponents of ecological modernisation have already pointed out that resistance to the idea that we need to change, and engagement by hostile stakeholders in public policy processes are major barriers to the ecological modernisation project (Malka et al. 2009), and there has been some work on how this has been filtered through to public opinion, but here we see that to a large extent this has been successful, and there is a lack of trust in the idea that economic growth will be maintained if a carbon tax is implemented.

Participants from greenhouse intensive industries consistently argue that they are beholden to the international nature of their industries, and that any carbon tax would have to take this into account, which makes the implementation of an effective carbon tax particularly problematic.
While many of the following participants claim they support a price on carbon, the boundaries within which their support holds are narrow:

... don’t impose a price here that you know ah the Indonesians or the Columbians or the Mongolians don’t face because then it’s just another cost of business, that’s actually a cost of business that we can’t really bear, so having an 18 billion dollar liability for coal mining industries alone, is not exactly the best outcome when you’re fighting in a competitive world for the market.

- Natalie, industry advocate

Here, Simon is again running the aluminium industry line:

If Australia is paying the cost of the higher production of those commodities before it’s reflected in the world price for those commodities, the Australian economy – Australian manufacturers and Australian resource companies – lose.

-Simon, aluminium

Rather than move towards environmental protection, then, such participants argue that this can only be done in an international forum – even though the respective industries they represent also argue against measures to curb greenhouse gases within those international forums too (Levy and Egan 2003). Far from agreeing that the decoupling of the economy and environmental harm can be achieved through a carbon tax, these participants argue that such initiatives will be detrimental to both their own industries as well as the national interest.

Oscar argues that the government and treasury have misunderstood the basic costs, and that their modelling is inherently flawed:

the cost trajectory that treasury predicted for [the] CPRS which even at 5% reduction was starting at US 20 bucks a tonne and then increasing at 4% real each year, which is 7% total including inflation roughly; if you take out the availability of cheap overseas credits, then it doesn’t go at 4%, it’s probably going to go at something more like 10%. So instead of it being 40 bucks in 2020, it’s going to be more like 100 dollars in 2020 – or something like that ... I remind you - reducing emissions is difficult and expensive. It’s difficult and expensive. I can’t stress that enough – it’s difficult and expensive and people don’t realise how difficult and expensive it is.

- Oscar, international resources

Oscar’s comments reflect a deep distrust, which is prevalent among the vast majority of participants, not only of the government’s understanding of the issue, but, more importantly in relation to ecological modernisation, of the ability of the carbon tax to balance the line between environmental protection and economic growth. Both of these issues are a barrier to the type of co-operative arrangements aspired to under an ecological modernisation framework.
6.6 Discussion

It is certainly not the case to say that there is across the board resistance to the ecological modernisation project among participants in this study. However, this study joins the body of research in pointing out that there are several ‘real world’ limitations to ecological modernisation, and the carbon tax has clearly highlighted these. As Buttel (2000) has argued, one of the most appealing features of ecological modernisation is that it fits within the current economic paradigm. Yet, as we see in the debate about climate change, this is also a major weakness. The downplaying of issues of power relations between government and industry in a capitalist growth economy within ecological modernisation masks the barriers to change which, in the case of Australia, largely come from the fossil fuel industries (Curran 2009). As Gilding (2011) has argued, this might be seen as a competition between ‘new’ and ‘old’ industries. Jänicke (2004: 204-205) calls them ‘modernisation losers’ and argues briefly that one strategy to respond to such industries may be to reduce subsidies for environmentally destructive industries. Yet as we have seen with the carbon tax, industries in Australia have gained subsidies as appeasement for the change.

While many participants reflect the attraction of the ecological modernisation framework, when it is discussed in detail in terms of eco-efficiency, technological change and attempts to implement new ways of accounting for the economy, there is a strong resistance and hesitation. These interviews show, then, that despite the appeal of ecological modernisation, there are structural impediments to its progress. This has, to a limited extent, been recognised by some ecological modernisation thinkers. Jänicke for example, has argued that structural change ‘i.e. the relative or absolute reduction of a product or process - may be indispensable’ (2004: 203) where resistance to ecological modernisation is strong. As is discussed in Chapter 9, ‘It’s so political’, in some of the more extreme interviews this is precisely how participants view the carbon tax – as an attempt to shut down some industries – and this explains their fierce opposition to it. What is clear from this examination of the ecological modernisation framework in particular, is that while there may be some rhetorical concessions to it as an idea, participants in this research are far from the practices of reflexivity required for its implementation.
Chapter 7: It’s the economy

7.1 Introduction

If participants are ambivalent about climate change, these attitudes invariably come from an alternative frame of reference than the science. Their rejection, too, of ecological modernisation indicates severe limitations to the way participants are able to conceive of responding to climate change, even for those who are concerned about its impact. It does not take a great deal of analysis to see that participants’ primary concern is with the potential economic impacts that responding to climate change might have. Indeed, while debates about the science are important, the principal tension among participants is whether the economy can withstand the proposed solutions to the problem and continue to grow. Although the classic business model includes an ability to respond to risk through innovation, transformation or diversification; it is to be expected that business leaders would be more deeply entrenched in arguments about economics than any other sector of the community.

A prominent feature of participant interviews was the emphasis on the economy, especially in light of the fact that interviews were specifically identified as being about climate change. This is clearly in part a result of the surrounding policy debates about the carbon tax, as this too was a dominating topic of conversation. Participants regularly expressed concern about the need to balance the economy and environment in a way that, more often than not, favoured the growth economy. This goes some way to explaining their negative response to the carbon tax as well as a range of measures which fit the ecological modernisation model.

Although alternative views of economic functioning exist, the 20th and 21st centuries have seen the growth of a global, neoliberal economic system. This is evident in the development of organisations like the World Economic Forum, the World Trade Organisation and the World Bank, as well as the proliferation of multilateral and bilateral trade agreements, which push for the removal of trade barriers and have an overall stated aim of increasing trade and growth. On a national level, the peeling away of the welfare state which operated under principles of Keynesian economics in the 1980s occurred under conservative and left-leaning governments.
While the neoliberal program appears to have become established as the general consensus among Western nation leaders, the risk society and climate change in particular threaten to impose problems for some of these ideas. Beck argues that climate change signals a need for a green modernity that ‘will have to include a new vision of prosperity which will not be the economic growth held by those worshipping at the altar of the market’ (2010a: 262) and that ‘the dynamic of the world risk society must count as a historical refutation of the neoliberal conception of the minimal state’ (Beck 2009: 63). Beck accepts that the consequences of dealing with climate change entail some limitations to growth, but he also takes the optimistic view that this can be alleviated through the ecological modernisation process. As we have seen in the previous chapter, however, participants in this research have not incorporated such transformative views in response to climate change.

In the process of examining participants’ views on climate change, then, it is important to understand their vision of how the economy does — or should — operate. In a broad sense, the identification of participants as business leaders places them within the economic field. Participants were identified primarily for their role as business leaders in the Hunter region and all but three were interviewed in their place of work. Although it was made clear to participants that interviews were about the participants’ personal views on climate change, these views are clearly influenced by their occupation and particular industry. It is also reasonable to expect that the particular position of participants, as leaders, and sometimes owners of their business, makes it more likely that they would be personally invested in their business interests.

While neoliberal economics attempts to disassociate itself from social practice through the idea of the rational, self-interested individual, Bourdieu argues that ‘the social is present in its entirety in every “economic” action’ (2005: 3). The development of particular beliefs about how economics should function is not only a matter of refining markets, but has been a historical process which has occurred within the field of power, and been implemented by individuals, each with their own version of what the limitations of government intervention and market freedom should be. The false distinction between economics and social practice is, however, perpetuated by economists under the guise of economics being a ‘pure’ science. Bourdieu emphasises both the changeable nature of the economic field as well as the influence of habitus
on how people operate within it. This means of understanding the economic field allows for a more nuanced approach to the data in this research, opening up the possibility both for contestation within the economic field as well as a social understanding of participants’ movements within it.

Making use of Bourdieu’s methodology of field analysis, this chapter situates participants within the economic field. It sketches out participants’ discussion of the economy and how this impacts on their views of climate change. The key ideas related to how participants see the economy operating are reflected in dominant neoliberal ideas of the economy. Participants argue that the economy operates as a rational actor and that decisions are made on a model of pure investment for profit. Yet the economy is reified, perceived as an entity in its own right which requires constant input and must always be in a state of growth. The sale and distribution of coal is intrinsically tied to this and restricts what we can and cannot do in relation to climate change. Introducing a carbon tax militates against the growth economy model. Yet there are some fractures over this, which suggests that some of the concern about climate change, and in particular land use, has had some follow through with these participants. Whether these arguments have an impact on the economic field in general, however, is questionable. The chapter therefore contributes to the discussion about how risk, in the form of climate change, impacts the economic field.

7.2 The economic field

Fields are described by Hilgers and Mangez as ‘social spaces with a specific legitimacy and functioning’ which come about through the ‘differentiation of the domains of human activity’ (2014: 2). The boundaries of the field are in a constant state of contestation (Emirbayer and Johnson 2008: 8). Within each field there are two poles of hierarchisation; the autonomous pole – which represents values specific to the field, and the heteronomous pole – which relates to the field of power (Hilgers and Mangez 2014: 8-10). The field of power is discussed in more detail in the following chapters, but it is useful here to note that, like all fields, it is contested through ‘the opposition between cultural capital … and economic capital’ (Hilgers and Mangez 2014: 8). Like the field of power, the economic field is pervasive, and increasingly powerful, in other fields (Hilgers and Mangez 2014: 8-10; Swartz 1997: 135; Swedberg 2010: 9). To consider, for example, the environmentalist field – an autonomous pole in this field would be the protection of the environment above other competing priorities. The mechanisms and strategies deployed by proponents of ecological modernisation, as well as centre-left political parties aiming to
convince voters of the need for action on climate change – such as economic reports like those of Nicholas Stern (2007) in the UK and Ross Garnaut (2008) in Australia – indicate the influence of the economic field at the heteronomous pole; a struggle by those in powerful positions to legitimate environmentalism. These strategies are clear attempts at engaging the so-called rational, economic thinker – or ‘homo economicus’ – with the hope that showing climate change itself is a threat to business as usual will stimulate action on the issue.

Bourdieu’s economic sociology gives us some hints as to why this might be the wrong strategy. Declaring ‘homo economicus’ an ‘anthropological monster’ (Swedberg 2009: 232), Bourdieu argues that the concept attempts to completely remove the social from any account of human action within the economy – a situation which simply does not exist. Rather, Bourdieu argues, ‘economic theory has allowed to be foisted upon it a definition of the economy of practices which is the historical invention of capitalism’ (Bourdieu 1986: 242). Assuming all practices are ‘self interested, it has implicitly defined the other forms of exchange as noneconomic, and therefore disinterested’ (Bourdieu 1986: 242). It is this lack of understanding of the habitus of an individual; the influence of social fields, daily practices, and cultural and social capital, that limits the economic analysis of any given situation.

The economic field, then, is not necessarily fixed in the neoliberal paradigm. There may be influences on those working within the field – such as the concepts of corporate responsibility or sustainability – that can, through the field of power, make changes to the standards and assumptions contained within it. While ‘entry into the field requires the tacit acceptance of the rules of the game’ (Swartz 1997: 125), this does not mean the power structures within the field are fixed. Rather, strategies of conservation, succession and subversion are carried out by ‘players’ in the field to determine its shape (Swartz 1997). For example, the shift away from Keynesian economics towards neoliberalism has been a major, historical shift within the economic field. Despite this, there is little recognition from the vast majority of participants that neoliberalism is but one way of viewing the economy.

In this research, participants overwhelmingly reflect a sense of the economic field as one aligned with the neoliberal paradigm. The economy is depicted as needing constant growth, and, partly because of globalisation, markets are seen to respond according to an independent logic that is entirely out of the control of human activity. This is based around the principle of the right to consume, which is almost seen to be a social justice issue. In these ways, participants reflect a neoliberal ‘doxa’ – a ‘belief ... in the game and its stakes; they grant these a recognition that escapes questioning’ (Bourdieu and Wacquant 1992: 98).
7.3 Growth or anarchy

The need for ongoing economic growth is the cornerstone of neoliberal ideology. This is often linked to poverty alleviation. In very simple terms, the argument is that as productivity increases, capital will be reinvested, creating jobs. This growth in employment also creates an increase in individual consumption, which in turn also creates more jobs. This argument is put forward by both neoliberal thinkers, who relate economic growth to individual freedoms (Friedman and Friedman c1962), as well as economists influenced by Keynesian economics who are more supportive of the welfare state (Friedman 2005; Kuznets 1966). These views have long been challenged by environmentalists, who argue that there are physical limitations to such a possibility (Meadows et al. 1972).

Economic growth was given as a common limitation to the framework within which any responses to climate change must occur. While many participants argue that climate change needs a response, the competing priority of economic growth is never far away:

It [a price on carbon] needs to be able to do it in such a way of course that it doesn’t sacrifice all – the cause of it all being productivity and wealth generating capacity of the Australian economy .... there’s a really good chance that [if] it goes rather wrong [it will] dissuade ongoing investment in certain sectors of the economy that are propping up much of the economy at the moment. That over time Australia just ends up in a much weaker economic outcome.
- Simon, aluminium

While for Simon productivity is ‘the cause of it all’, Trevor says outright that the economy is more immediate than climate change:

I mean climate change, I don’t think the businesses are even getting involved with the discussion about whether it’s real or not – they’re accepting it. The argument is, what is the severity and what is the timing? Versus, we have more immediate issues in the economy.
- Trevor, research

Oscar says that all of the options for dealing with climate change involve reducing the economy, which is politically unacceptable:

You either spend a lot of money to decarbonise your economy, or you just reduce your economy, either way it’s very expensive. Reducing your economy means making people poorer – and nobody is going to vote for that (laughs). Ok, so nobody’s going to say ‘well I think I should only earn 60% of what I earn next year so I spend less so I reduce economic activity which will reduce emissions’
- Oscar, international resources
This is because the economy, ultimately, is the ‘measure of our success’:

The measure of our success is the work that we win and the projects we can get involved with, and how we grow the economy and how we are perceived.
- Mack, business advocacy

Participants here are outright disregarding the possibility of any slowdown of growth – it is the ‘measure of our success’; ‘the cause of it all’; ‘nobody is going to vote for that’. In this they reflect the analysis of White, who argues that ‘capitalism in essence means expansion’ (2002: 85). Yet the benefits of this are questionable. Such ideas have caused a number of researchers to investigate whether economic growth does actually lead to poverty alleviation (Wilkinson 2009) as well as whether it makes us happier (Hamilton and Denniss 2005); and have overwhelmingly found that there are limits to which growth is effective in this regard; yet clearly here participants are clinging to the idea of economic growth as being the most important priority.

In order to continue growth without too much intervention from governments, it is common for companies to sign up to sustainability principles or programs. Thus corporations regularly have social and sustainability reports, with some implementing a ‘triple bottom line’ whereby social, environmental and economic goals are supposed to work together. To this end, participants will sometimes talk about the need to ‘balance’ these goals, as Chris does below:

Whilst we need to address the issue, we can’t undo broader social considerations so we need to keep a focus on keeping the economy strong and all that kind of jazz, but it’s about getting that balance right.
- Chris, commercial property development

While Ryan speaks of a ‘clear commitment’ to ecologically sustainable development (ESD), the first issue he mentions is ‘economic growth’:

We have a very clear commitment to all the ESD principles so obviously economic growth, ah the social benefits that come from an airport and the social responsibilities, so that can range back into environmental issues as well issues like noise ... the major environmental areas concern for us are more around electricity usage, being a major consumer, one of our major costs, and we’re a major consumer for electricity.
- Ryan, aviation

Amber resorts to reading directly off her company’s promotional material, which argues that economic and social development is about increasing access to energy – her industry:

*(reading off company’s Sustainable Development report)* ‘[Company] believes access to an affordable, reliable and securable energy is fundamental to our economic and social development’
- Amber, international resources
Ideas of sustainable development have been highly criticised as publicity mechanisms more than any real attempt to take social and environmental considerations on board (Marsden 2000). Participants here reveal the difficulty of implementing these ideas – what happens when social or environmental goals come into conflict with economic ones? It seems that they are deprioritised. Chris notes not only the need for balance but says outright that the economy is the priority. As argued by White, ‘at the heart of these processes is a culture that takes for granted, but rarely sees as problematic, the proposition that continued expansion of material consumption is both possible and will not harm the biosphere in any fundamental way’ (White 2004: 279). While many participants here express a desire to be socially and environmentally responsible, the data in this research has no examples where the latter is prioritised above growth. Such thinking follows the title of Milton Friedman’s (1970) provocative article, ‘the social responsibility of business is to increase its profits’; the presumption being that economic growth and business prosperity is, above all else, the primary means by which societies are measured.

Friedman (1970; c1962) also argues that neoliberal policies are the best way to achieve individual freedom. In the risk society, consumption has become a way of identifying oneself, a means of creating a biography that is no longer given or forced upon us by social expectations (Beck and Beck-Gernsheim 2002: 1-21). This individual right to consume, to whatever extent is within our means, is inextricably linked to the need for growth. Consumers dictate what is acceptable:

You know basically, all businesses today, it’s got to be air conditioned, all homes have got to be air-conditioned, your cars have got to be air-conditioned and stuff like that – so you know it’s basically, that’s just on the consumer level –
- David, accounting

And if such demands are not adhered to, there is a threat of chaos:

Look at designer shopping malls, look at Charlestown Square. You imagine what’s going to happen when you have unknown brown outs in that shopping mall. Because you don’t have a reliable baseload energy. It’s anarchy. You’ll get people injured, you’ll have looting, you’ll just start to see a change in behaviour. Now if you want that, let’s talk about it. That’s my point.
- Eric, shipping

This way of thinking puts the individual consumer, rather than the producer, at the centre of responsibility for climate change, a highly problematic claim which ignores the ‘social construction of need’ (White 2002: 89). While the idea that the market responds to consumer demand is doxic within a neoliberal ideology, White has outlined the relentless pursuit of
commodification through the transformation of a product’s ‘use-values’ into ‘exchange-values’ (White 2002: 85). This pursuit, he shows, actually creates the market, rather than the other way around. The example given by participants here of air conditioning becoming perceived as a necessity is a case in point; the very fact that we have not always had air conditioning to the extent we now do reveals the way in which capital has increased the stakes and expectations of consumers.

Participants argue that growth needs to occur not only on a national level, but an international one as well. Just as Oscar notes above that ‘reducing your economy is going to make people poorer’, participants argue that people in China and India deserve and need economic growth in order to reach the levels of consumption that we in the West currently enjoy. This is often framed as a social justice issue; any attempts to stop exporting coal are said to impact the development of other nations, which have more immediate problems than protecting their environment.

Our biggest single challenge is no doubt the disparity of earnings and lifestyle and poverty across the world - absolutely no doubt. I mean locally … China’s tackling the issue head on, and India and so forth – but … they’ll have stable middle classes who will be consuming a couple of billion tonnes of coal extra to what they are today … but Africa for example … is a huge issue for mankind [sic] I think – and the poverty and the disease - going forward … and part of that’s going to have giving them energy too, and where that’s going to come from?
- Simon, aluminium

Jonathon, who is environmentally minded, is cautious in his critique. On the one hand, he speaks for those in poorer nations, arguing ‘it’s not really their immediate concern’:

So all I’m just saying is that in terms of some place, in terms of quite a lot of places on the planet it’s not really their immediate concern. So you know, basic health care and living conditions and you know I mean I’d like there to be less population growth but that’s coming from someone with four kids living in Newcastle (laughs) so I’m saying … I would think people especially who live in a privileged existence, need to be careful that they’re not hypocritical about it because they don’t live in the conditions that other people do.
- Jonathon, lawyer

Luke turns this type of argument around, and is critical of what he sees as the mainstream Australian perspective:

The people who are in countries like Australia, who are in an extremely privileged position, will want to maintain that privilege.
- Luke, consultant

There is a strong presumption among participants that economic growth is desirable and inevitable, and this is couched in terms of both a necessity for Australia to maintain living
standards as well as for poverty alleviation, particularly in industrialising countries. What is also of note here is the distancing of ‘voice’ that some participants use. Jonathon notes his own privilege by saying he had four children, even though he’d like to see ‘less population growth’ – a means of suggesting this as at least part of the solution to ‘others’ without really suggesting it. Luke, on the other hand, seems critical of the complacency of Australians but does not state his own position. While participants put forward arguments that may seem well meaning, none make a note of the fact that people in these nations are themselves responding to climate change, and the role that the international economy plays in this. China, for instance, has argued that its increasing emissions have been a result of manufacturing products for consumption in richer nations (Helm 2011: 21), and is currently carrying out a major program of slowing the growth of coal fired power in its most populous regions which could also impact on the nation’s own economic growth (Fern Tay 2014). What can be seen here is that the neoliberal view of the economy means two things for climate change – that the cause of the problem is individual consumption, rather than production; and that there should be no right to impede the access of others to this consumption.

7.4 Globalisation, cosmopolitanisation

In addition to the argument that Australia has a moral imperative to export coal so that developing countries can continue to grow, there is an extent to which this outcome is seen as inevitable. The spread of neoliberal policies across the globe is arguably the first step in what David Harvey (2000: 53-63) describes as the process of globalisation. Other steps have included rapid technological growth, the spread of information and communications, and, for those who can afford it, physical mobility of individuals across the globe. These latter processes, however, have developed at a much slower rate than the former, resulting in differential consequences for those living in richer, and those living in poorer, nations (Harvey 2000: 53-72). For those in richer countries, many argue that we are experiencing a new era of cosmopolitanism; a compression of time and space (Harvey 1990: 260-307) which gives exposure to a multitude of cultures but also risks. Beck describes cosmopolitanisation as a situation where the ‘nation-state is increasingly besieged and permeated by a planetary network of interdependency, by ecological, economic and terrorist risks, which connect the separate worlds of developed and underdeveloped countries’ (2008b: 4). While ideally, such a situation might create a sense of connectivity, an understanding of a shared future which results in collective responses to risks like climate change (Beck et al. 2013), the competing risks under cosmopolitanisation make for
a multitude of potential responses. This situation is often expressed by participants who are concerned about Australia ‘leading the way’ on climate change.

It’s pretty clear I think that the Prime Minister [Kevin Rudd] was trying to set it up for a Copenhagen big deal – not reading the tea leaves on China and the USA – supports the fact of where we fit in the world. And I don’t think we’ve improved on a clear reason as to why we’re doing what we’re doing.

- Eric, shipping

For Andrew, not only is the economic impact of reducing emissions on our own too costly, but he argues that our own consumption is so small that it will not be effective:

There’s no overall global strategic plan, so we can do all we like here in Australia and we could stop our industry and we could do everything. But unless you get China and India to do the same, it’s going to be useless. Our carbon footprint compared to theirs is miniscule. So it, it’s got to be taken on a global front.

- Andrew, coal

David agrees – it is more important that other nations reduce their emissions first:

We’re a very, very small fish in the ocean compared to the rest of the world and you know basically, what are we twenty – ten million? Well there’s 1.2 billion Chinese, there’s a billion Indians, there’s 400 million Indonesians sitting on our door step so if they’ve got to change, well we change, and what’s the benefit?

- David, accounting

Simon sees the overarching problem as being about development:

Well I think the principle barrier is the developed world versus the developing world, recognising that for any global response to really have a tangible positive impact on the outcome is going to require the United States and China and India, to be part of it.

- Simon, aluminium

These arguments against governments taking action on climate change are common both in interviews here and in the broader discourse (Bulkeley 2001: 438-439; Doulton and Brown 2009: 194-197). Participants here appear to be drawing on a number of arguments and assumptions. The first is the idea that Australia is – or was – leading the way by intending to implement a price on carbon. This claim is highly questionable. Finland introduced the first tax on carbon as far back as 1990, closely followed by the Netherlands, Sweden, Norway, Denmark and Switzerland (SBS 2013). In 2005, the European Union began an emissions trading scheme; in 2008 Aotearoa New Zealand implemented emissions trading and in July 2010, India implemented a nationwide tax on coal (SBS 2013). In 2014, the World Bank reported that ‘[a]lmost 40 countries and more than 20 cities, states and provinces already use carbon pricing mechanisms or are planning to implement them’. This includes China, which has ‘pilot emissions trading systems in seven cities and ... plans to create a national system in 2016’ (World Bank Group 2014). Far from leading the
way, Australia is increasingly behind. The second idea, that Australia’s emissions are incredibly small, is also incorrect. According to the Organisation for Economic Cooperation and Development, in 2010 Australia was the largest emitter of greenhouse gases per capita – emitting 24 tonnes of CO₂ equivalent greenhouse gases per person (OECD 2012). This figure, however, would be trebled if emissions from coal exports were included (Christoff 2013: 351-352).

A further argument as to why such policies are not desirable is that of ‘carbon leakage’. This refers to the argument that if there is a price on carbon in one country, companies will just move their operations to another. In this context, participants talk about the need to compete on an international level. Amber argues that Australia would be leading on climate mitigation, putting it at a disadvantage in the global market:

Why should Australia go first – or not go first, why should it go further than our competing – nations that we compete against. Our economy, particularly in Australia is very – the competitive advantage has come off the back of the resource sector.

- Amber, international resources

Simon also points out that Australian coal burns more efficiently than other types of coal, and that trade exposed industries would need extra assistance to continue operating if a price on carbon was implemented:

I just think, we are an export orientated – oriented economy and the reality is we compete and we’ve got to compete on a level playing field. I don’t think we can race out in front of the rest of the world.

... if you don’t offer some form of transitional assistance for that section of the industry, you’ll just end up with the carbon being generated elsewhere. In some cases at a higher tonne of carbon per tonne of commodity than it was in Australia, which would be – all you’d end up [with] there is a double negative – if you ended up potentially damaging the Australian economy, and you’d end up damaging the planet.

- Simon, aluminium

Natalie brings the point back to the unique position of the Hunter region in the debate:

I guess from the – particularly the coal industry’s point of view because that’s what comes up at the Hunter – our concern remains about not acting ahead of our competitors because we are a trade exposed industry, not acting ahead of our competitors when it comes to imposing a carbon price on, on us.

- Natalie, industry advocate

Such views are based on a number of presumptions: that the global demand for coal will continue; that developing nations will continue their growth trajectories; and that companies will operate only where the price of the commodity is cheapest. Simon’s comment about being on a ‘level playing field’ reveals little recognition that inequalities between nations already exist – be they around carbon pricing, employment regulation, or anything else. There is a strong
argument, as well, that Australia overall is a stable, secure place in which to do business (Hamilton 2000: 58-63). This makes it very likely to continue to receive foreign investment, whether or not there is a price on carbon. Simon’s reference to ‘carbon being generated elsewhere’ which would have a ‘higher tonne of carbon’ is also misleading – Australia is in fact the only major producer of aluminium that uses coal fired power, others, including those in poorer nations, use hydro-electricity (Hamilton 2000: 88). Further, the Australian industry receives much cheaper rates for their electricity than individual households or other businesses (Turton 2002: 25). Whether or not participants are aware of these alternative analyses or not, their engagement with the issues is clearly limited.

The prominence of these types of concerns in both national and international debates about how to respond to climate change are no doubt reflective of the reality that we are currently living in an increasingly globalised economy, and this gives rise to a number of anxieties. These anxieties are expressed clearly in the following discussion with Mick and Narelle:

Mick: they need to lead by example and look into things before they, you know, do things like carbon taxes and all that sort of stuff and make sure that Australia[ns] aren’t just copping it, you know when the rest of the world and being disadvantaged by it, because all the good work that you do, if you go and introduce a tax that’s going to be seen to be unfair, and you think, ‘well ok, we’re Australia’, and yes, you do have to make a stand sometimes and you do have to go out there and lead the way but if we’re going to be disadvantaged as far as the rest of the world, as far as trading and stuff like that, all the good work that they do, they’re going to undo it, because people will just turn.

Narelle: The economy will slow down

...Mick: You know, I’d be thinking, ‘ok well they put the tax in and it drives me out of business, but are they going to drive the bloke that does exactly the same job as me, on the other side of the world – are they going to drive him out of business too?’ More than likely not – and that’s, that I think is the concern. Ok, like I said before it’s good to be a leader and all of this, but at what cost, you know, and is it going to be fair, is that manufacturer going to be on a level playing field as the bloke across the other side of the earth

Narelle: But you’ll go to other countries and it’s hard to find anything that we produce here. You know like your vegemite or your tim tams or – you know it’s hard to go overseas and find a lot of Australian made products over there.

- Mick and Narelle, aged care

Mick and Narelle’s interview was very interesting in terms of the contrast between their passion for environmental initiatives in the workplace and their clear articulations of the problems of globalisation. While they are positive about efficiency, there is a strong anxiety about the possibility of being forced to make changes. Narelle articulates what she already sees as an inequality of the globalisation process – ‘you know it’s hard to go overseas and find a lot of Australian made products over there’ – while Mick sees a price on carbon as an ‘unfair tax’ which is an affront to people’s ‘hard work’, threatens to drive people out of business as it removes the ‘level playing field’ [again]. As Narelle says, ‘the economy will slow down’. Such comments
reflect a sense of a lack of control over the political process, as well as a lack of trust in those advocating such policies.

Of course, the argument that a problem like climate change needs a global response is well accepted – even if the means by which this is achieved is not agreed upon. Yet participants reflect a lack of engagement with such processes; concerns about how we respond to global problem of climate change are largely neglected in favour of discussing anxieties about the economy. There is a clear interpretation of the problem of climate change as being a problem about the economy – implied in the following discussion excerpt with Simon:

It’s now definitely moving into the economic discussion – ok, well what are we going to do about it; it’s going to impact on the economy. Um – to the extent that you can get lost in the economic debate.
- Simon, aluminium

This imbalance of engagement reveals a situation in which participants are reacting more strongly to how the carbon price might impact their business than the actual problem of climate change – the priority is the company’s economic interests rather than the risk of climate change itself. At the same time, there is a lack of recognition of the role of coal exports in producing carbon emissions in countries that are growing. So while on the one hand, the interconnectedness of the economy is put forward as a reason not to take action on climate change, on the other, there is no recognition that this interconnectedness requires engagement from all nations – that is, Australia needs to participate in the solution. This suggests that the process of economic, neoliberal globalisation has been much faster than that of cosmopolitanisation.

7.5 The economic automaton

The economic field has emerged, historically, through the creation of a universe within which, as we commonly say, “business is business,” where the enchanted relations of friendship and love are in principle excluded (Bourdieu and Wacquant 1992: 98)

A key feature of the neoliberal economy is the idea that human intervention should be kept to a minimum; the economy should be left to regulate itself. This follows the notion of the ‘free hand of the market’ in which rationality, and profit maximisation operates to increase growth. This is further entrenched through the process of economic globalisation, where national markets are intricately linked to international ones through trade. If participants are concerned about the way the economy will respond to a carbon price, they are forgetting that the economy – and our notions of it – have changed over time.
Despite the clear political basis for implementing the policy settings under which this process occurs, the move towards a globalised economy is often depicted as a ‘natural’ part of the process of modernisation. Participants speak of the economy as operating independently of any human intervention, and where human intervention is recognised, it is within the type of ‘rational choice’ framework advocated by economists like Gary Becker (Bourdieu 1986: 243-244). This has the effect of reifying the economy; de-historicising the process by which ideas about the economy have developed as if it could not operate any other way.

Yet these notions developed over time, and not without opposition. The idea that the market operates best with little or no state intervention was exemplified in the 1980s, firstly by governments moving away from currency regulation, and secondly by the ongoing negotiations to remove trade barriers on exports (Harvey 2000: 61). Such moves were an attempt to operationalise the idea of Adam Smith’s ‘invisible hand’ – that allowing an individual to pursue their own self-interest is the best way to increase a nation’s wealth (Stiglitz 1991: 1). This idea, although a minor part of Smith’s work, was taken by political leaders and economists such as Milton Friedman to imply that governments should increasingly ease restraint on business in order to assist profit maximisation (Houseman 2006: 54). Despite being highly contested, the notion that markets have their own self-regulating mechanism is now deeply entrenched in not only the rich Western nations but those still pursuing ‘development’ (Chang 2002). This notion is also evident in participant interviews, as participants speak of business practices and the economy as if it were an automated system with specific values and accepted responses for which there is no alternative.

You know the fundamental truth is government can put in a policy that’s – their right, that’s what they’re elected to do. Businesses will respond in whatever the best interest is for their shareholders and protecting their assets. And the government can’t expect them to do anything else.

- Amber, international resources

Amber’s comments here are surprising, in part because most commentators argue that under a neoliberal perspective, the role of the state is primarily to police property ownership (Harvey 2005: 64-67). Given that the policy discussion occurring in the interview is in relation to a price on carbon, it would be fair to say that such a policy would be outside of this realm. The addendum – that business ‘will respond in whatever the best interest is for their shareholders and protecting their assets’ is both a reference to carbon leakage and a veiled threat. Her final comment, however, removes any responsibility, Friedman style, as any ability for businesses to respond differently is not possible, ‘the government can’t expect them to do anything else’. In
this way, the interest of shareholders becomes an automatic reflex, and so is set as a boundary of the economic field.

Predicting the ‘behaviour’ of the economy, therefore, comes to be seen not only as an objective science, but these guidelines work as a self-regulating doxa for the maintenance of the field itself. Anthony sees the market as operating in a circular manner; his prediction is that the automated process of the economy will not allow decisions to protect the environment to be maintained in the long term:

There’ll be – you know those extremist movements, will get their way partly – hopefully not too much – and it will all suddenly become a problem, the economy runs down, people are out of work, everything costs much more than it used to cost. Then suddenly it will go back – a bit overshift – and then, you know, we’ll be ripping it out of the ground and don’t worry about the ecology. And it’ll come back again.
- Anthony, consultancy

In Anthony’s argument, even if the ‘extremist movements’ achieve only a small amount of environmental protection, the ‘economy runs down’; much like the comments from Eric about the kind of anarchy he envisages if shopping centres were to experience a brown out, Anthony depicts a vision of disaster until we go back to ‘ripping it out of the ground’.

Anthony situates the idea that we need to do something about climate change as ‘extreme’ and argues that the impacts will be dire – the economy will respond by making people suffer. He suggests, also, that we will respond by returning to our current behaviour. Similarly, Oscar says the economy can ‘learn’:

You have to start – you have to allow the economy to learn, right, which means you have to allow people to learn, to become comfortable and familiar with it, you can’t just drop this on them. Um, they won’t accept it.
- Oscar, international resources

Oscar’s comments evoke the idea that you can ‘coach’ the economy, but it needs to be slow – ‘comfortable and familiar’ – the programming needs to be set within, or near to, the particular boundaries of the field. In this way, these participants invoke anthropomorphosis as a means of understanding the economy. They ignore their ability to intervene and shape the economic field; rather they give over to preconceived ideas about what the boundaries are.

So participants see the economy as an independent operator, programmed with specific boundaries in place, but the settings need to be right in order to get the desired outcome. To this end, ideas which are outside of the economic field become ‘emotional’, ‘irrational’, or ‘radical’ and are directly contrasted with the ‘common sense’ doxa of the field.
Vanessa: What about the role that the Greens have played in the debate and in the policy development I guess too?
I think they're just as bad. You know they've got their little group of experts who are all talking about the same issues in the same debates and I also think that the Greens are always really emotive – and I think, that’s very easy to dismiss, you can then dismiss their message, you know, if they're not presenting their arguments in an economic and a rational basis; for business, it’s too easy to dismiss them. You just get emotive – radical – fringe. I think they may have some good ideas, and they may have some ideas that should be considered but it’s too easy to dismiss the ideas, because you can dismiss them.
- Danielle, lawyer

The separation of emotion from rational decision making is one of the central dichotomies of modernity. The idea that the two are polar opposites are most prominent in ideas about gender, but are very much reflected in the way we envisage the economy functioning as well. As is explored in more detail in Chapter 10, ‘The green elite’, the so-called emotive arguments from environmentalists is one of the most common criticisms of their position. However, participants can also become emotive themselves when they speak of the need to protect the economy. Eric is worried about a ‘killer blow’:

The issue of dealing with – is Australia moving too early without the world, and we’re going to be damaged, is a killer blow ... I’ve now listened to the new Prime Minister [Kevin Rudd] say, we need to do this now, or there’ll be pain in the future when we need to do it, I go, why? Tell me why. Tell me what’s going to happen in the future that makes the pain now, because scare doesn’t work for me.
... We want to, if we want to end up in tents and on the backs of horses and so on, if we want to talk about the balance – I don’t know what the answer is, I don’t want the world to explode. But no one’s giving, convincing me of anything in this rhetoric of hyperbole. And not talking about the social impact.
- Eric, shipping

While Steven would question the mental faculties of those who want to implement change:

But for us to penalise the economy externally is just screwy. It really is.
- Steven, coal

John is even more dramatic, evoking the atomic bomb:

To give you an analogy of how I think they were going to introduce their policy, not dissimilar to when Paul Keating introduced the fringe benefits tax to try and combat an issue with how businesses were spending money on entertainment. And instead of addressing that area, he, in my world picture, to deal with a few weeds in the garden, used an atomic bomb. Waay over the top reaction which for two or three years, destroyed restaurants, families – the social impact of all that –for no real economic gain, except another tax for the government. So same with the carbon – throwing an atomic bomb on the front yard to deal with a few weeds.
- John, finance

Here we see both John and Eric turning the disaster analogy around, reframing risk as being more about the economy than the environment. Implementing a carbon tax is ‘screwy’, a ‘killer blow’ – or even an ‘atomic bomb’. The wording incites visions of dystopia, widespread suffering
and death. There is little recognition that what participants are talking about is a disruption to the market; a socially constructed exchange system which only has power over people’s lives to the extent that our social institutions and citizens grant it. In speaking about it in such extreme terms, participants show an ultimate reification of the market. It is seen as a threat to our survival without so much as a passing acknowledgement of the circumstantial nature of its existence. Ironically, their emotional descriptions also show a lack of the type of rational responses that are supposedly central to economic decision making.

7.6 Dissent

There were, however, a few participants who were willing to push the boundaries on the economy. They argued either outright that we needed to protect the environment as an absolute priority, or that the economy could be transitioned away from coal. These participants sometimes drew on arguments from the ‘limits to growth’ thesis or ecological modernisation, which is discussed in further detail in Chapter 6, in some ways aligning themselves with the environmental movement; yet this alignment too had limitations.

Alison was the most strident of these. Here she identifies a fundamental conflict between ‘economy’ and ‘ecology’:

> We live in an ecology, not an economy – you don’t know who said that? I must find out who said that but it’s a great line. I often think of it because it sums up to me the heart of where people are coming from when they’re making decisions, so it’s very hard to accept what we hear and learn about climate change, if you do believe we live in an economy, because if you have an ecological awareness, then clearly you have concerns about climate change.

-Alison, organic farmer

Alison’s dissent to the idea that we live in an economy is a direct challenge to the views of other participants. More importantly, she outlines an ontological point of difference and the difficulty this has in resolving climate change; believing ‘we live in an economy’ makes ecological awareness extremely difficult. In claiming ‘we live in an ecology’, Alison specifically places herself outside of the economic field, and prioritises ecological values above economic ones. This is also evident in her career choices, which have seen her go from being a successful journalist in the city to organic farming. As Bourdieu explains, a field is:

> a space within which an effect of field is exercised, so that what happens to any object that traverses this space cannot be explained solely by the intrinsic properties of the object in question. The limits of the field are situated at the point where the effects of the field cease (Bourdieu and Wacquant 1992: 100)
If the coal industry then, has convinced participants that it is crucial to the economy, and participants in the field prioritise economic capital above all else, then the arguments that Alison makes are an attempt to influence the field of power differently. Yet in doing so – especially through directly quoting environmental logic - she risks marginalising herself within the field, limiting her influence.

Kevin is the other participant who stands out in strong opposition to the coal industry:

"The trouble with the government in my opinion is it’s not based on the well-being of the people. I think it’s based on the economy. All, everything the government does is based on the economy, not on national well-being. I think probably happiness, and national well-being, and health should be priorities for the government, not the economy. In my opinion - I don’t know whether you’ve done anything on the economy or not, but they seem to think we’ve got to grow. You know, it’s a recession if we don’t grow. What the heck. As long as everyone’s happy, what’s it matter? Why’ve we got to get bigger? Why’ve we got to increase our profit by 12% every year? Can’t we just be happy? And that’s why the government’s not going to do anything, because they’re basing all their decision making on the economy. You know. I know the economy’s important, I know you’ve got to have money, you’ve got to finance these things. But I don’t think it warrants the sort of emphasis they’re putting on. Alright."

- Kevin, vintner

As with Alison, Kevin is speaking to concerns that are really outside of the economic field; his comments are really more from an environmentalist or social justice field perhaps at their more autonomous poles. These sort of statements from participants are extremely rare – opposing the economic determinism shown by others, they are in fact the only ones. Thus, while Beck and others speak of a potential split among business leaders, there is very little evidence of this occurring with any significance. Rather, the reified economy is depicted as necessarily in a constant state of growth; with an appetite reliant on coal. With these simple examples it is possible to observe the reproductive side of the field of power, and the way in which it is ‘bound up with the social structure’ (Hilgers and Mangez 2014: 185). That is, that the issue of climate change has been shifted away from the focus of environmental impact and towards one of the economy.
Chapter 8: Life. Brought to you by mining.8

8.1 Introduction

One cannot study the ‘ruling class’, the ‘elite’, the ‘dominant’ (whatever we may want to call them) without elucidating the conditions under which they reproduce themselves insofar as the very structure of the space of power they occupy is inseparable from its dynamic, from the mechanisms which produce and perpetuate it (Bourdieu, in Wacquant 1993: 19)

As the idea that the climate is changing has spread across much of the globe, a complex web of vested interests has formed around the issue. As Boykoff (2011: 12-15) has detailed, the most prominent interests in the climate change debate have been scientists and environmentalists on the one hand, and on the other, carbon-intensive business and conservative politicians on the other. As early as the late 1980s carbon intensive industries responded to the formation of the IPCC with their own Global Climate Coalition, set up ‘to counter efforts to take action on climate change and to promulgate climate change scepticism within government, the print media and later, especially, the new media’ (Urry 2011: 20). As a small section of the business community located around the world’s biggest coal port, participants in this research are squarely at the centre of these debates. It is almost impossible for participants to distance themselves from the locality of these debates. The central business organisation for the region, the Hunter Business Chamber, at the time of the research was physically located on the edge of the coal port, at the previous BHP steelworks site. The daily regional newspapers featured ongoing debate about the role of mining in the region and the proposed carbon tax. Whether participants have a business stake in the climate change debate or not, they are certainly aware of the reputation of the coal industry, and are vocal in their opinions on a price on carbon. This chapter analyses these opinions to explore the ways in which the coal industry has managed to maintain its dominance in what Bourdieu calls the field of power (Wacquant 1993).

In the lead up to the 2007 NSW state election the Minerals Council of New South Wales rolled out a campaign in defence of the mining industry. With the catchphrase: ‘Life. Brought to you by mining’, the campaign emphasised the role that mining plays in providing energy for households and individuals. At the time there was a strong campaign against the proposed Anvil Hill mine near Muswellbrook, with locals concerned about farmland impacts for the first time joining with international NGOs and local environmental groups concerned about climate

8 From 2007 NSW Minerals Council advertisement (Frew 2007)
change (see Connor 2012). If that was not sign enough, when the Minerals Council threatened a small climate change activist group, Rising Tide, with legal action if they did not take down a website spoof of their campaign (Frew 2007), it became clear that the Council was out to combat any concerns about the coal industry’s impact on climate change. In the years following, the coal industry has gone to great pains to ‘reproduce’ itself and ‘the space of power’ it occupies. This is carried out through strategic investment of the industry’s economic power - through the formation of lobby groups such as the Minerals Council, community engagement and investing in direct advertising campaigns. Through these mechanisms, the industry attempts to ‘sell its story’ to the broader public and decision makers alike.

This story is that the industry has a strong cultural connection with the people in mining regions, that our current way of life is dependent on the industry continuing to grow, and that the economy will fall apart if the industry is unduly burdened with legislative restrictions. A campaign site set up by the NSW Minerals Council in 2013 is instructive as to how the industry sells this message. Its headline motto is ‘Hurt Mining Hurt NSW’ and the front page contains links to an exhibition titled ‘see our miners in a new light’, a request to sign up to be a ‘voice for mining’, a page outlining how many businesses supply the mining industry in different parts of the state, a counter story to the Australian Institute’s report which had argued that mining receives large government subsidies, and a number of news items in support of the industry (NSW Minerals Council NSW Minerals Council Ltd. 2013a). The ‘NSW mining history’ page opens with the following:

Mining has been part of NSW for more than 200 years, providing jobs, independence and wealth. No state has played a more prominent role in the history of Australian mining than NSW. Coal mining in Australia began near Nobby's Head in Newcastle in the 1790s, with the first coal shipment leaving Newcastle in 1799. (NSW Minerals Council NSW Minerals Council Ltd. 2013b)

This emphasis on the importance of the industry in ‘providing jobs, independence and wealth’ has been key to coal industry’s rhetoric – be it in debates about climate change, land use or other resistance to the development of the industry in the region (Connor, Freeman and Higginbotham 2009; Campbell 2014).

There is little doubt that these types of mobilisations of resources, and investment in public relations, are successful. The final proposal for the carbon tax contained massive concession for both the coal and aluminium industries (Drape 2011; Taylor 2011; Manning 2011). In 2010, the industry spent $22 million in an ultimately successful campaign against a proposed mining tax (Davis 2011); and in 2011, an alliance of industries including the Minerals Council were reported
to be planning to spend $10 million against the carbon tax (Coorey 2011). That the nation currently has no mining or carbon tax is clear evidence of the political success of the industry’s campaigns (McKnight and Hobbs 2013). Further success of the coal industry’s strategy is evident in this research. Even participants who are worried about climate change are broadly supportive of the coal industry, taking up many of the types of arguments that the industry puts forward in its public outreach, to the extent that many express an inability to see the economy of the region reduce its dependence on coal. To this end, it seems the industry has maintained a strong position in the field of power which – as the Australia Institute (Campbell 2014; Richardson and Denniss 2011) has convincingly argued – is comprehensively stronger than its mere economic contributions would suggest. The misrecognition of the coal industry’s economic capital is doxic.

The mobilisation of the industry’s capital is skilful; investing both economic capital – through an intensive public relations campaign – and social capital – through networks – to disseminate its narrative to the public, arguing that coal is central to not only the economy, but the social and historical fabric of the nation. As Bourdieu notes, economic capital ‘is also endowed with symbolic properties – this economic capital can be invested, for example, in the realm of culture, where it is converted into symbolic capital by the purchase of art works, the creation of foundations, the financing of ‘civic’ activities, etc.’ (in Wacquant 1993: 23). In the same way, the narrative promulgated by the industry becomes a form of symbolic capital, misrecognised at times as economic, and other times as cultural, capital. Regardless, then, of whether the industry is absolutely crucial to the economy, it is misrecognised as such, and protected within the field of power from most of its opponents.

8.2 The field of power

As soon as there exist several forms of inheritance, i.e. of power, it is imperative to make sure that each of the different categories of heir remain in their respective place. (Bourdieu, in Wacquant1993: 21)

Bourdieu uses the field of power as a means of investigating the broader struggles for power which occur across social space, and in all fields. These struggles are between those already in a position of power and, as with more specific fields, relate to the value given to different forms of capital. In Bourdieu’s words:

I speak of the “field of power”, rather than of the dominant class, the latter being a realist concept designating an actual population of holders of this tangible reality that we call power. By field of power, I mean the relations of force that obtain between the social positions which guarantee their occupants a quantum of social force, or of capital, such that
they are able to enter into the struggles over the monopoly of power, of which struggles over the definition of the legitimate form of power are a crucial dimension. (Bourdieu and Wacquant 1992: 229 - 230)

This conception of power not only signals a shift away from a more materialist view which might be guided by economic demographics and categories in order to identify individuals in positions of power, but emphasises relations of power between both those individuals and the types of capital they would defend. Thus Bourdieu argues that this struggle over which is the ‘legitimate form of power’ occurs between holders of differential levels of cultural and economic capital: ‘At one pole of the field of power, we find agents who are very well endowed in cultural capital and poorly in economic capital and, at the other pole, individuals and families very rich in economic capital but poor in cultural capital’ (in Wacquant 1993: 23). This means that power is never stable, nor is it allocated objectively; rather, it needs to be constantly maintained and legitimated, and is always contested. For the coal industry, the threat of climate change, and the possibility of support for renewable energy, challenges the industry’s historical position of power – hence Beck’s (1995a: 28) claims that risks have the potential to generate a split within the business camp, which is a key player in the field of power.

Indeed, to the cultural, economic and social schema proposed by Bourdieu, Beck adds the idea of ‘legitimatory capital’ (2005: 240-243) as a response to risk. This capital is mobilised by global civil society by way of exposing the wrong doings of corporations:

[A]dvocatory movements of global civil society are the originators, advocates and judges of global values and norms. ... by sparking public outrage and generating global public indignation ... focussing on individual cases, whether it be environmental scandals, where corporations are ‘caught in the act’ and found guilty of wrongdoing, or the pain-filled biographies of victims of torture that arouse the world’s conscience. They establish the perpetrators guilt by (ideally) disseminating truthful information and thereby effectively staging a public trial where they are the prosecutor, global public – consumers – and judge rolled into one. (Beck 2005: 238)

Unlike cultural, economic and social capital, Beck argues that this type of capital is not transferrable; indeed, he specifically notes that corporate advertising has the opposite impact of its intention: ‘anyone who advertises must have something to hide!’ (Beck 2005: 240). Such a prospect is certainly one which should be considered. The debate over the carbon tax would seem to make these claims somewhat dubious, although there is little doubt that part of the tensions that are observed in this research are related to the legitimation of particular world views.
Hilgers and Mangez argue that the field of power ‘is bound up with the social structure and more especially with the social and symbolic relations among the social fractions dominant within the social structure’ (2014: 185). In examining participants’ views on the economy, the previous chapter has emphasised the structural side of this dynamic. This is the first of three chapters that will emphasise the ‘social and symbolic’, mapping out some of the relational aspects of participants’ views on climate change. How participants value the perspectives of other powerful interests, such as the coal industry, politics, scientists and environmentalists, is central to understanding their response to the problem. This chapter explores participants’ attitude to the coal industry, while the chapter following will contrast this with the way participants speak of the political field. The third chapter to focus on the field of power will examine participant attitudes to scientists and environmentalists.

8.3 It exists, therefore it must be dug up

It seems fitting to begin such an exploration with participants who work for the industry itself, although it is not surprising that these participants are articulate in their repetition of these arguments. Natalie talks about our economy as being linked to coal by ‘nature’:

Australia’s actually a country that does produce – that is actually quite emissions intensive because that’s what we export, that’s the nature of our economy, and then so I think the problem’s just a lot more complicated.
- Natalie, industry advocate

Natalie’s argument that Australia is emissions intensive because of the coal we export is misleading, firstly because Australia’s coal exports do not count as part of our nationally calculated emissions. As the Garnaut Review (2008: 153) has noted, Australia has high emissions per capita because of our dependence on coal fired power. Regardless, the suggestion that coal is ‘the nature of our economy’ implies a perception that little can be changed, even if there was a will to do so. Mack is an advocate for the manufacturing industry in the region and also pursues this argument. Seeing coal as the region’s ‘competitive advantage’, he suggests that the growth of the manufacturing industry is also dependent on coal:

We have a challenge in the region – that’s, that we’re a carbon challenged area, a lot of the industry we’re involved with is related to coal mining, to power production, aluminium smelting and related industries, so if there is risk here, that these industries will change, there is a risk to our members and to the industry that work will change, industries will go
away etc. I think our competitive advantage is more the niche, the support products, the technology and so forth and that’s related to coal, and it’s related to clean coal, and we’ve got to make the most out of that.

- Mack, business advocacy

As industry advocates, these participants speak by necessity to the dominant members of their organisations, which include many coal companies, so these arguments are not surprising. What was surprising, however, was the extent to which these arguments were advanced by other participants in the research, suggesting that they are deeply embedded – doxic – in these participants’ ideas about the economy and the region.

Jonathon, who is concerned about sustainability more generally, sees the fact that we have coal ‘on our doorstep’ as making it impossible to leave it in the ground:

I do think that the coal industry whether we like it or not, is a major economic player in terms of our living standards, in terms of you know as a sustainable economic place, the coal industry plays an important part of that. And that’s just a feature of the fact that we’ve got those resources on our doorstep.

- Jonathon, lawyer

Jonathon explicitly links the idea of ‘sustainable economic development’ to coal, as well as being fundamental to ‘our living standards’. Luke, who also argues that climate change is a problem, argues that coal is fundamentally tied to our living standards:

I don’t think we’ll stop mining or exporting coal for a long, long time – the world needs coal, there’s no doubt about it, we cannot stop the coal train tomorrow and expect life to go on as normal, we’re going to need substantial amounts of coal, there will be a viable coal mining industry for a long, long time.

- Luke, consultant

Luke’s arguments here are strongly reminiscent of the coal industry’s ‘Life – brought to you by mining’ campaign. His argument that it is not possible for ‘life to go on as normal’ if the coal industry contracts and that ‘the world needs coal’ directly take on the themes of the necessity of the industry to the region. Yet recent research shows that 93 – 95% of Australian coal will need to be left in the ground in order to have a chance at limiting climate change to an increase of 2 degrees (McGlade and Ekins 2015). Here, it seems then, Luke’s concern about climate change is countered by his view of the coal; by coal’s very existence as a cheap form of power, which will assist ever expanding economic growth, there is no other option but to make use of it. Given the prominence of the industry in the region, it is certainly possible that participants who are more concerned about climate change are simply resigned to the idea that the coal
industry will continue. Yet such resignation is also a lack of willingness – for whatever reason – to stand up and argue differently.

Some participant comments resonate as empathy for the situation in which the coal industry finds itself – related not only to climate change, but to conflicts over land use. Ryan goes as far to say that the coal industry is ‘picked on’:

Well, and I think that’s where you’ve got to think about the different countries and economies. And that’s like a lot of these issues around – let’s pick on coal.
- Ryan, aviation

Such an argument was also being advanced by the industry itself in the media at the time over the carbon tax as the coal industry tried to seek exemptions, with claims that it is ‘being singled out for an unjustifiable tax grab with significant, long-term implications’ (Roche 2009: 82).

Dennis, as a representative of the horse breeding industry in conflict with some of the coal proposals in the region, shows an awareness of this attitude, and was cautious about being seen to be ‘anti-coal’:

We’ve said it right from the start and we mean it, we’re not against coal mining, you know we’re not fighting the coal miners per se, we’re just asking for a bit of reason, a bit of thought. It’s been going on for 20, 30 years, their sort of escalating encroachment, it’s to the point where we’re at now where towns like Muswellbrook are just completely enveloped in mines.
- Dennis, thoroughbred industry

While there is a strong view in the community that the industry has gone too far, and is impacting on other businesses, there is a clear division being made by Dennis between his stance as a representative of the horse breeding industry and that of environmentalists – he goes to some pains to outline this. These comments show a level of solidarity with the coal industry – an acknowledgement that, as a large industry in the region, the coal industry’s voice is important and, perhaps even more important than others – those who really are against the coal industry. Within the field of power then, these participants are recognising the coal industry’s complaints as legitimate concerns – the government (and others) should not be interfering with the right to carry on business, and needs to consider compensating or other measures for any moves it might make that will impact on profits.

The historical role of the industry, as it points out in its own materials, is also used to firm up the importance of coal to the region. It is not uncommon throughout the Hunter region to find statues and plaques noting the history of coal – many of which are donated by the companies themselves – which add a level of cultural capital to the coal story. It was common for
participants to outline a historical perspective that links the development of the industry to the development of the region. Justin develops a narrative of the region’s future development which is underwritten by coal:

The Hunter’s a – is resource rich, and you know it will be increasingly ... Newcastle will be to Sydney what San Diego is to LA, it will emerge, and emerge as a commercial centre, a centre for industry, and coal mining will undermine that – sorry underwrite that – for the foreseeable future.

They say we’ve got to play to our competitive strengths and – pardon all the metaphors but make hay while the sun shines – and the world is demanding coal, and you know we’ve got plenty of it ... I think we’ll always – for a lot of time we’re going to be a coal port, and you know, it will be a state of the art coal port, as good as any coal port, but it will still be a coal port, carting coal so you know Newcastle’s always going to have an industrial base to it, you know it’s not going to be like a city which is high tech, services, tertiary services like Sydney.

- Justin, health

Like others, Justin argues that the development of the coal industry in the region is inevitable, and bases this on world demand but he takes this a step further, declaring it impossible for the region’s economy to be ‘high tech, services’ based. James, too, describes the history of the region, and argues that we are at its end:

I guess years ago when I was going to school in the valley – they’re all dairy farmers, right? Then the power generation industry came, and that came because the coal was here to fire up the Bayswater and Liddell power stations and the power stations there around Lake Macquarie. So the fact that the power stations were here, that attracted the aluminium industry, because it needed enormous amounts of power. And then the world wanted coal, and the coal was here and that grew and then the steel industry cut back, but the economy of the others still grew. And so here we are sitting today, and we have such an imbalance focus of our original economy on coal, I’d suggest. It does attract a lot of servicing, but the core business is really coal.

- James, renewables consultant

Without seeming to realise it, James notes that industry in the region has historically changed - away from dairy and then towards coal – but argues that the ‘core business’ is now coal. James repeats the coal industry’s claim that other industries are primarily in the region to service coal. He is concerned about the imbalance, but argues there is a fundamental link between the economy and world demand for coal. At the same time, his narrative of the history of the region recognises quite clearly that socio-economic change does occur – the region has been organised around farming, aluminium, steel and coal fired power – in different combinations over time. Yet James seems to see coal as ever present in this history.
For this reason, he seems to see history as simply stopping at ‘our original economy on coal’, echoing Bourdieu’s notion of misrecognition:

Schemes of thought and perception ... produce misrecognition of the limits of the cognition that they make possible, thereby founding immediate adherence, in the doxic mode, to the world of tradition experienced as a “natural world” and taken for granted (Bourdieu 1977: 164)

8.4 Power and dissent

While voices of difference are few and far between, it is important to recognise them. As noted in the previous chapter, a small number of participants held up the possibility of diversifying the economy and putting a hold on coal projects. Trevor is concerned about both the emphasis on coal and the speed at which it is being used:

Australia’s at a crossroads. We’re on the verge of being a super power in terms of the amount of energy that we do have, in terms of carbon based coalbed methane gases, natural gas, potential for – we haven’t really discovered our oil reserves – uranium, and even existing coal. We could be a superpower depending on how we best control that flow of that energy.
... If we do it right, we’re going to be a very strong country. If we do it wrong, we could be a hole in the ground with no other – we’re definitely in a two speed economy, manufacturing is suffering, service jobs are diminishing, and when it’s over we’re going to have our capital equipment in all the wrong places.
- Trevor, research

Similarly to Dennis, Trevor is not so much claiming that coal needs to be kept in the ground, but that it would be smarter, economically, to have more control over its distribution, and that other industries are developed alongside coal. Indeed, Trevor’s insight has been echoed more recently, as coal prices have faced a major slump and talk of ‘stranded assets’ has become common (Caldecott, Tilbury and Ma 2014).

Mark goes a step further, and argues that there has to be a point at which the industry is stopped:

You know they talk about Gunnedah and up into that basin as having much more coal than what’s certainly just on the Hunter Valley here, so you see just the coal loaders and they’re going for another one at the moment I see. You know, I think we need to go back and say no, we need to find some alternatives here. I think that potentially that sort of responsibility needs to lie with us, given that we, obviously well the governments see some huge revenues that come out of the port just here. It’d be nice to see us lead, I don’t want to do ourselves out of business but I just think that’s our overall responsibility.
- Mark, fitness
Although these types of comments are rare, they do show from some participants a willingness – and even desire – to consider other options, albeit ones that are kept within the bounds of a growth economy. Mark’s final comment – ‘I don’t want to do ourselves out of business’ – reveals an awareness of the position in which he places himself by saying that the coal loader might have to be rejected, as well as alluding to the difficulties that governments too, have faced in trying to do so. Yet what is apparent from the public debate, as well as the development – or, now, withdrawal – of policy is that these voices are, overall, weak. The vast majority of the public debate around the carbon price in particular has been from stakeholders and environmentalists.

As is discussed further in Chapter 10, framing of the debate within the field of power, with stakeholder businesses seen to represent the economy and environmentalists relegated to the holders of cultural capital, the reframing of the debate – away from an environmental issue and towards an economic one – means that the balance of powers is already skewed in favour of greenhouse intensive industry.

To a smaller extent participants recognise the active role that the coal industry plays in pursuing some of these arguments, and that this is a deliberate strategy by the industry to prevent policies which limit their capacity for profit. As some participants note, the power of the industry over politics is increasingly evident in the debates about climate policy. The vicious campaigns that the industry engaged in against the mining tax and a price on carbon were widely reported, and the Carbon Pollution Reduction Scheme was regularly quoted as a factor in the change of leader - and therefore Prime Minister – in the Labor Party before the 2010 election (Bramston 2014).

Vanessa: Why do you think it [CPRS] didn’t get very far?
Danielle: Oh obviously the mining companies, you know, were very opposed and they ran a campaign at time that - you know they would get maximum response because there’s an election.
- Danielle, lawyer

The transferal of the mining industry’s economic capital into symbolic capital is evident in the way so many participants here talk about the size of the industry. What is interesting, however, is that far from taking away from the legitimatory capital of the industry, as Beck argues, there is a resignation that this is the way that power works. As David notes below, this perception of ‘big mining’ carries a great deal of social capital:

I think for the region currently the only key, the main key players talking are larger business and they’re – the impact for those businesses – associated with the carbon tax.
- David, accounting
David’s comments are very much supported by this research. What becomes increasingly clear is that those participants who are highly engaged with the political processes and public debates about climate change are those who work in greenhouse intensive industries and are often campaigning against legislation to mitigate the problem. Participants who are more likely to support action on climate change are from smaller businesses, such as farming, viticulture, or services. While many participants in this research express a concern for – or ‘belief’ in – climate change, these participants are nowhere near as prominent or organised as the coal industry when it comes to the public debates. This lack of involvement creates a space in which the greenhouse intensive industries become the voice for business.

In such a situation, it is easy for these businesses to shore up their position. Eric talks about the fact that long term contracts are negotiated between the industry and the government as to what the former is able to ship out of the ports in any one year, which would prevent the government from reducing coal exports:

> Whether it [coal exports] gets to 300 million tonne I don’t know but in terms of these developments, of up to 200 million tonne, they’re underwritten by long term contracts, and a government can decide if they want to cut those, but the legal compensation around that will be enormous as well, and the loss of revenue and royalties is just enormous, so – I’m not reporting that but clearly the developments going on at the moment will continue; it’s underpinned by contracts. If someone wants to come and say, ‘well it’s changed’, there’ll be decisions made by people around that environment. So - and that’s got nothing to do with Tinkler, that’s to do with the whole of the coal industry. Tinkler’s just a very small player in this.
> - Eric, shipping

Eric’s later comment ‘that’s got nothing to do with Tinkler, that’s to do with the whole of the coal industry’ indicates he sees the power of the industry as embedded structurally, rather than dependent on one or two prominent coal barons, who are often the focus of local media. He emphasises the links between government and coal, and alludes to their interdependency on the profits that arise from exporting coal, despite, as discussed below, the fact that this is greatly overestimated. The creation of a shared interest with government is one which can be made sense of within the field of power – by creating alliances with those who may prioritise other types of capital, the coal industry is able to confirm its position – even if, as the next chapter will discuss, this alliance is somewhat tenuous.

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9 Eric is referring to Nathan Tinkler, a self-made Hunter Valley-born mining magnate. Tinkler grew his wealth from coal investments at a relatively young age and famously took over a number of sporting clubs in the region but spectacularly lost his wealth in 2012 and is currently embroiled in a range of financial controversies (Carter 2015; Page 2015; Manning 2013)
Interestingly, Lisa makes similar claims about the way the industry uses its social capital – the networks between businesses themselves – although her focus is on ‘individual people who have the money’:

My personal opinion is that whilst ever there is coal, and anything to be taken out of the ground, that that is the way it will happen because there is too many people with too much money invested in those - the infrastructure of those plants and stuff. And I think – people, individual people, I think there’s a lot of power in with the people who have the money and who, and the infrastructure and all that type of stuff, and that’s going to feed the need for that for a long time.
- Lisa, maintenance

Lisa and Eric both indicate that they recognise the coal industry has made use of its economic power to convince governments to hold back on climate change policy. This has not only been through the manipulation of a ‘shared interest’ in exporting coal, but, as Lisa points out, the industry has also been the beneficiary – if not the instigator – of decades of infrastructure built specifically for coal fired power. It is through these kinds of mechanisms that the industry is able to maintain a dominant position in the field of power. This reproduction has occurred over a long period of time – and in this way the industry is right to point out its role in the history of the region. As John Urry (2014: 10-11) has argued, the development of modern capitalism is vitally linked to the spread of this infrastructure, creating a form of path dependency that makes rapid change incredibly difficult.

8.5 Discussion

With a few small exceptions then, participants argue that the history of the region has come from coal, that current economic prosperity is linked to coal and the future of the region is coal. There is very little suggestion from any that this will change. In doing so, they conflate coal with economic growth and risk historicising their ideas about the economy in favour of this. Ironically, such arguments are reminiscent of the closure of the BHP steelworks, whereby a great deal of regional anxiety was expressed about the future of the region. Yet it is widely accepted that, although it certainly had an impact, the kind of dire predictions made about the steel works did not eventuate (Rofe 2004). These types of arguments, then, come not only from a realistic concern for those directly employed in the industries involved, but from a doxic notion of the importance of such industries, as indicated by the lack of ability to see a functioning economy without coal (or previously steel). Participants’ conflation of the economy with a particular industry speaks clearly to the success of those industries in perpetuating their own mythology. As Bourdieu argues, ‘no power can be exercised in its brutality in an arbitrary manner, that it
must dissimulate itself, cloak itself, justify itself for being what it is – it must make itself be recognized as legitimate by fostering the misrecognition of the arbitrary that founds it’ (in Wacquant 1993: 25). The misrecognition of the coal industry as the economy is deliberately promulgated by the industry in order to rally support from the community in the face of climate mitigation; it is a tactic used to wield power over politicians, environmentalists, and others who might threaten to limit the industry’s growth and dominance in the region. Such arguments not only ignore the history of the region, but risk what Bourdieu calls hysteresis:

the structural lag between opportunities and the dispositions to grasp them which is the cause of missed opportunities and, in particular, of the frequently observed incapacity to think historical crises in categories of perception and thought other than those of the past. (Bourdieu 1977: 83)

In their resistance to finding alternative forms of investment in the region and considering the development of a diversified economy, these participants hold tightly to coal.

Interestingly, those who are concerned about climate change have attempted to intervene in the perpetuation of the industry’s narrative; in the exact way that Beck describes, to disrupt the legitimatory capital of the industry:

NGOs can provide both states and international organisations and corporations with more reliable information – information that threatens the position of certain other states and corporations. Their legitimatory capital is thus based on their long-term credibility as producers of reliable information. (Beck 2005: 242, original emphasis)

Research from The Australia Institute has pointed out the contrast between public beliefs about the importance of coal to the economy in the Hunter, and its actual contribution. The organisation commissioned polling of 1001 residents in the region, and found that respondents thought that the coal industry employed almost four times as many people as it does – while the industry employs five percent of the workforce, the average guess by respondents was 19.8% (Campbell 2014: 8-9). Even more dramatically, respondents on average thought that mining royalties contributed 19.5% of state royalties when in fact it contributes just two percent (Campbell 2014: 12). Earlier research from the Institute indicated that nationally, perceptions are that mining employs 16% when it in fact employed 1.9% and that ‘While the mining industry accounts for around 9.2 per cent of GDP – about the same contribution as manufacturing and slightly smaller than the finance industry – a typical Australian believes that mining accounts for more than one third (35%) of economic activity’ (Richardson and Denniss 2011: 8). The success of this approach by The Australia Institute as an intervention is yet to be seen, indeed given they are a progressive think tank they are unlikely to be successful in the current political climate, at
least in terms of a government response. While The Australia Institute no doubt offers an important alternative voice, they are limited by the media either ignoring or contesting their claims. Further, the symbolic power of such organisations is often limited to the vigour with which the general public are willing to take up the issue, and given the strength of forces – discussed in the following chapter – against action on climate change, this is a very difficult task.

There are also still many questions to be answered in terms of whether a growth economy can be sustained alongside strong action on climate change, but it might be instructive to consider Swartz’s comments on the way fields work:

One important consequence of the competitive logic of fields and their doxa is that they help create the conditions for the “misrecognition” of power relations and thereby contribute to the maintenance of the social order. Actors misrecognise the arbitrary character of their social worlds when they take for granted the definition of rewards and of ways of obtaining them as given by fields. An unintended consequence of engaging in field competition is that actors, though they may contest the legitimacy of rewards given by fields, nonetheless reproduce the structure of fields (Swartz 1997: 126)

In other words, could it be that The Australia Institute, in attempting to counter the coal industry in the field of power, is still perpetuating the idea that economic growth is important, without recognising that if the answer to that is yes, and if coal, as we see here, is still seen to be crucial to this, then it is unlikely be slowed anytime soon.

This appears to be the type of situation in which participants in this research also find themselves. Their commitment to a growth economy often translates into misrecognition that the coal industry is critical to the economy for now. As Beck has argued, the debate over climate change is problematic because of the emphasis on elite expertise and ‘climate politics is precisely not about climate but about transforming the basic concepts and institutions of first, industrial, nation-state modernity’ (Beck 2010a: 256). This type of transformation cannot take place without fundamental changes to the current ‘relations of force’ within the field of power; and the perpetuation of the idea that the growth economy is crucial, and that coal is essential to this, prevents any discussion about changing these institutions.
Chapter 9: It’s so political

9.1 Introduction

If business leaders prioritise economic capital and growth, in a globalised, capitalist economy, where countries compete against each other for trade, governments might be expected to be a natural ally (White 2004: 279). Of course, governments have the added burden of democratic processes in which they need to engage to maintain their political power. In many ways governments are seen as the mediator between social needs and economic planning; yet increasingly the growth of neoliberalism conflates the two. Famous phrases like Margaret Thatcher claiming ‘there is no such thing as society’ (1987) and more recently statements from conservative Australian politicians, including Prime Minister Tony Abbott along the lines that ‘the best form of welfare’ is a job (Abetz 2015; Morrison 2015; Meagher and Wilkins 2014) invoke a dissipation of social responsibility, as individuals are pushed to become economic agents who look after themselves.

At its purest level, then, government intervention to alleviate climate change is anathema to this way of thinking. Yet it is largely accepted, even in neoliberal thinking, that some level of government regulation may be needed to assist in incidents of market failure. This is what has led economist Nicholas Stern to claim that ‘the problem of climate change involves a fundamental failure of markets’ (Benjamin 2007). This argument is used to convince others that it is the role of government policy to overcome the rift between economic priorities and environmental danger. However, as has already been noted, this is strongly resisted by many participants in this research. These differences are played out in the field of power, whereby the vast majority of business leaders in this research resist the idea that government intervention is the most appropriate mechanism for dealing with climate change.

Participants argue that politics is purely oppositional, and that this results in poor policy, which is vulnerable to change and disruptive to economic planning. Others argue that politicians make decisions without the correct knowledge or analysis of the impacts of those decisions. Underlying this discussion, some participants note that they are actively lobbying for particular policy outcomes. These processes are far beyond the reach of the average Australian who may be concerned about daily expenses – or the ‘hip pocket’, as some might glibly put it. Rather, many participants are manoeuvring within the field of power, lending support for different ‘climate discourse coalitions’ (Christoff 2013) in the hope they will lead to various policy outcomes.
9.2 Mistrust in government

While participants reveal a deep distrust of politics and politicians, it is interesting to note that much of the research on how the general public views politicians and business leaders indicates that neither is trusted. Both are seen to manipulate information to suit their own purposes – the latter to increase profits and the former in order to maintain political power (Gow and Leahy 2005: 126-128; Pusey 2003: 138-167; Roy Morgan Research 2014). Beck sees this lack of trust in institutions as cause for celebration, and argues that it will ultimately lead to a reconfiguration of our political system towards ‘subpolitics’: a ‘decoupling of politics from government; [which] underlines that politics is also possible beyond the representative institutions of the nation-states’ (Beck 2009: 95, original emphasis). This, he says, will be a direct result of the failure of the institutions of modernity to respond to risk: as ‘dangers are being produced by industry, externalised by economics, individualised by the legal system, legitimised by the natural sciences and downplayed by politics’ (Beck 2009: 95) there is likely to be increasing unrest as the risks become actual disasters and ‘ad hoc “coalitions of opposites”’ (Beck 2009: 95, original emphasis) – of groups, organisations and individuals which might not otherwise work together – are formed in response. Certainly, the stalemate created by the power struggles between business and political institutions lends itself to an environment which would nurture such a response.

It is not new to find a lack of trust in governments and politicians, both in Australia and the Western world more broadly (Leigh 2002). From the mid-1980s, under the auspices of globalisation, the Australian public increasingly saw both major parties implement a reform agenda of economic rationalism. In his prominent research on ‘middle Australia’, Michael Pusey argues that this led to a deepening sense of betrayal from voters, who became overwhelmingly mistrustful of politicians (Pusey 2003: 138-147). Three quarters of Pusey’s respondents said ‘that governments of any party cannot be trusted “to put the needs of the nation above their own party interests”’ (2003: 166) while 60% agreed with the statement that ‘it doesn’t matter which party is in power, in the end things stay much the same’ (2003: 142).

These attitudes appear to have some resilience in the Australian public. Public surveys of trust regularly rate politicians poorly, after the media (Bean 2015; Leigh 2002; Roy Morgan Research 2014), and numerous investigations based in qualitative data support these surveys (Buys et al. 2014: 182-184; Gow and Leahy 2005). Politicians are generally seen as self-interested, and unlikely to hear community concerns unless it suits their re-election. Yet Pusey’s study also found overwhelmingly that the higher income a person had, the higher their level of trust in the government and the political system more generally (Pusey 2003: 133). It is of note then that
participants in this research are much more in line with Pusey’s ‘middle Australia’ than his business ‘elites’ (Pusey 2003: 154).

Participants were generally well informed of the machinations of government; while pointing out that the Abbott opposition were purely antagonistic, they also articulated a clear understanding that the Gillard government was only looking to introduce a price on carbon because they needed the Greens to form government. This understanding, however, led only to a more deeply entrenched sense of scepticism about both politics and the development of policy. Yet as some revealed, they were in a very different position than much of the public; as lobbyists, and stakeholders in the proposal, their involvement was much closer than the distanced public.

9.3 The problem with populism

Participants in this research exhibit a general distrust of politicians similar to that found in the broader public. Lisa argues that governments deliberately lie about the intent of their policies in order to justify them:

I mean how many times do you see, ‘this toll on the road will finish once the road’s been paid for’. And then once the road’s been paid for it just continues. It just – it tends to be that you know, you pay your tax dollars here and they don’t get spent here. And I suppose that’s a very Newcastle view because we do seem to get not as much money back from the government in this area as we give them. … I have the suspicion personally that this [the price on carbon] will be a revenue raiser and perhaps all the money won’t be going where it should be going.
- Lisa, maintenance

Mick expresses a similar distrust when discussing the potential for a carbon price:

Mick: … do you trust a government that says ‘we’re not going to tax you on your petrol’? … when they can turn around and say yes I know we promised this in the last election but this is the way it is, how do you trust them? … I just don’t trust what they say
- Mick and Narelle, aged care

Participants continually express a very strong belief that politicians cannot be trusted because they are too self-interested, that they do not respond to their constituents, and are only interested in increasing government revenue. As such, they are extremely wary of any new tax or tolls proposed by governments, which they suspect are just new ways of creating revenue.
Many participants in this research also comment on the similarities between the two major parties. For Trevor, the fact that Labor are embracing what is traditionally a ‘capitalist’ response, while in America – a traditionally capitalist country – the government is rejecting it, creates confusion and a general lack of trust about political motives:

I’m not favouring Labor or Liberal – it’s a funny I mean if you get into a political debate the two parties going back 50 years were two different – [we had] two clear agendas, and – it was great because we had two different opinions, two different views being put up and society made a choice of which was relevant for the time. Today, I think people are confused - because I can’t really tell the difference between the two. Here’s the Labor party pushing for an economic solution that is based on what is traditionally a capitalist view, but over in America they’re not going ahead with it – which is, they’re traditionally the capitalist view.  
- Trevor, research

Luke is concerned about climate change and wants a government to show leadership, but he laments the lack of a ‘mainstream left-wing party’:

I don’t think any political party is great at understanding the views of a broad cross section of the community, they’re only great at listening to the people they’ve been talking to last. … We’re a little bit isolated, because we’re a little bit regressive in our politics, we’re very immature and we’re very conservative now in our politics, we don’t really have a mainstream left-wing party.  
- Luke, consultant

The similarities between the parties here inspire despondence and scepticism: Trevor ‘can’t really tell the difference between the two’ parties, and does not favour either; Luke thinks politicians only listen to ‘the people they’ve been talking to last’ even though he appears to want a ‘mainstream left-wing party’. In a condition of ambivalence, participants turn away from politics as a potential source in responding to climate change.

It is not only the substantive policies of political parties that have engendered a perceived lack of difference between the two, but, according to interviewees, the political system itself. While Australia’s compulsory voting system and short election cycles are seen by some to create a stability unmatched in other Western nations (Donovan, Denemark and Bowler 2007: 82), participants in this research see it as leading to a popularity contest which encourages policy on the run. According to Steven:

The government at the end of the day has to try and make rational decisions and then you get elections come along and governments will go irrational, will do anything to get back into power. It’s a real worry and we’ve seen how governments that are responding to short term political pressure will make some awful, awful decisions.  
- Steven, coal
Lisa agrees, arguing that politicians say whatever they need to in order to be elected, but then change their minds once they’re in:

I fairly purposely try not to listen to anything that any of them say, because what they say today is not really what they’ll be backing in a month’s time … too much is going to happen between now and then to really be worried about their squabbling. They just seriously need to get a grip. They just try and make each other look bad. It’s just, it’s a bit pre-school. It really is. … They’re just worried about getting in next time and you know, ‘how bad does this look’ and all that type of stuff, they’re too worried about themselves and their parties and their agendas and – yeah, so I’m a little bit sceptical of anything that really comes from there.
- Lisa, maintenance

Ryan, too, argues that the politics is more about populism than any attempt to formulate good policy:

Vanessa: have you been following much of the political debate about the carbon price?
Oh I follow it to the point of losing interest because it’s just going nowhere fast … they are driven by populism rather than by leadership. I think that’s the real issue, I think governments are just too worried about what is going to be the most popular solution rather than what’s going to be the best solution.
- Ryan, aviation

Lisa sees politicians as childish – ‘squabbling’, ‘a bit pre-school’ - implying they are more caught up in themselves and their own arguments (or ‘party interests’). These problems are seen as an across the board approach in politics – as Lisa notes, she doesn’t ‘listen to anything that any of them say’. Rather than finding or supporting a political solution to climate change, Lisa talks about going to public forums on climate change, and the ‘1 million women’ campaign[10] for information about how to make personal changes that will lighten her family’s carbon footprint. Interviewees here echo the three quarters of Pusey’s (2003: 166) research participants who believed that politicians cared more about ‘party interests’ than they did about running the nation. Yet what is missing from this analysis is a recognition that these ‘party interests’ are usually about responding to public concerns – if only to be voted back in to office. Theoretically, this is a crucial aspect of democratic representation. On the one hand the politicians are criticised for being too responsive to constituents, while on the other – when participants talk about the carbon tax – they are accused of overstepping their leadership role. Yet participants appear to miss this irony in the rush to dismiss attempts by politicians to balance the two. Rather, participants insist that politicians are only interested in power for power’s sake.

[10] A campaign, generally aimed at middle class women which gives them ideas about how to make ‘greener’ choices in the products they buy for themselves and their household. See: www.1millionwomen.com.au
Within such a system, interviewees argue that the need for differentiation between politicians – and in particular between parties – creates an oppositional framework whereby members of the public can never fully know what it is their members of parliament stand for. According to Eckersley, Australia’s lack of a ‘cohesive sense of national identity’ creates a ‘more adversarial political culture’ (2013: 390) which polarises debate and halts the development of long term policy. As David argues, this is particularly disengaging:

Well I think basically, our political system at the moment has been for probably 30 years – that I’ve been involved and known politics, it’s adversarial really, you know you can’t agree with the other side because if you agree with the other side you’ll look too much like them, so if they say ‘it’s black’ well we’ll say ‘its white’ and then the electorate will make the decision and determine what’s in the middle and what – what is the actual colour, it might be grey.
- David, accounting

David’s comments are very much in line with media analyses of climate change, which have argued that similar journalistic norms have weakened people’s understanding of the problem (Boykoff and Boykoff 2007). Boykoff and Boykoff (2007) argue that the appeal of drama, as well as the notion of finding ‘balance’ and presenting two opposing sides, work together in the case of climate change to present a purely oppositional discussion which discourages engagement with the issue at hand – whether that is climate change or politics. McCright and Dunlap have argued that the increasing politicisation and related polarisation on climate change in the U.S. ‘poses a serious impediment to creating and implementing effective federal climate policy’ (2011b: 179). These trends have also been observed in Australia by Tranter (2013), who notes the challenges of convincing those more conservative members of the public that a carbon tax is an appropriate solution to climate change. With decisions being made along ideological lines, the ability to create bipartisan policy becomes increasingly hampered.

It is important to note, however, that while many participants declared support for a coalition government – and none declared support for Labor – there were, at times, quite strong critiques of Tony Abbott’s approach while leading the Coalition opposition:

*Vanessa: So what do you think about Abbott’s approach?*  
Oh well it’s just another way of approaching it, I guess he’s – he’s probably being quite pragmatic, he’s saying well – you know – he’s, he’s wedge politics. You know, it’s all, see in a way there’s no – the drivers here aren’t environmental conviction, they’re political drivers.  
- James, renewables consultant

Even though he is a supporter of the Liberal Party, David is disappointed with Abbott:

You know I’m a long term supporter of business so I’m more, I more tend to vote Liberal, but I don’t – I just have no – I’ve got no time for Tony Abbott and I didn’t have a lot of time
for John Howard ...Tony Abbott, he’s a one trick pony. ‘Whatever they say, I’ll, I’ll say the opposite and I’ll – I’ll put the fear factor out there in the equation’.
- David, accounting

While participants show an understanding of the nuances and problems faced by politicians, they are far from sympathetic. Rather, they depict politics as lacking substance, as a game where people are purely seeking their own power, or party power; including the opposition.

In line with public attitude surveys (see, for instance Donovan et al. 2007: 87-91), interviewees here also argue that governments’ lack of consultation is a factor in their distrust. Trevor reflects Beck’s (2010a: 254-255) concerns that the discourse around climate change is held at the elite level, arguing that the public are deliberately shut out of the process:

I think it’s [climate change] been stolen by political agendas. I think we’re treating the society as idiots, that they don’t understand, so the debate needs to be taken to higher level, or they’re being lectured to. I mean ultimately the basis of democracy is open engagement and to get understanding and to get representation. I’m not sure the decision making process has [followed this].
- Trevor, research

For Trevor, this has serious implications for democratic processes. Eric, too, argues that the government just apply their policy preference and then ‘spin’ it to the public:

The people are just so disengaged, they’re just – it’s noise ... I have no idea what the message is, and I don’t believe ‘trust me, it’ll be alright’. ... They’ve got a whole set of government departments there. What happens is they set the policy, though then it’s the government that decides if they want to do it, and I’m not sure about the spin that happens at that point.
- Eric, shipping

That interviewees here reiterate so much of the public’s attitude to climate change needs to be considered within a framework of power. Both Trevor and Eric speak of ‘the people’, possibly recognising their particular position of power relative to most.

To return to the field of power, then, it is somewhat surprising that participants reflect similar views to broader research on the public’s attitudes when it comes to politics. This is because the latter suggests that the vast majority of participants in this research would be seen, by the public, as being extremely close to politicians and government. Indeed, the extent of the lack of trust shown to politicians in Pusey’s research was also dealt out to ‘big business’, with nearly three-quarters of their sample believing that ‘big business has too much power’ (Pusey 2003: 143) and almost three to one agreeing ‘that big business benefits owners at the expense of the workers’ (Pusey 2003: 145). While the public are arguably disenchanted with the political system, many of the interviewees here are engaged with policy development, either through...
direct lobbying, or media work. In this regard, participants are as engaged with climate policy and contributing to its apparent polarisation as are politicians. As operators within the field of power, the business lobby’s discourse on climate policy was almost as prominent and instrumental. Reflecting this, interviewees often provided detailed analysis of the Labor government’s woes and its decision to put a price on carbon in place.

9.4 ‘Gillard’s “no” does not mean “no”’ 11

Julia Gillard’s lie, mis-statement, fib, unforeseen circumstances, inadvertent misleading, mistake, falsehood - call it what you will - wasn’t just any old broken political promise. It was the mechanism that allowed Labor to scrape over the line last August … Gillard didn’t just break her promise; she sold the nation’s soul to the Greens and allowed them to become the cuckoo in Labor’s nest. She alienated Labor’s traditional working, aspirational base and sent Australia’s oldest and proudest party into a death spiral in the polls, with a primary vote as low as a record 27 percent. The Greens’ wishful thinking, naive belief in global institutions and big government, and ill-thought-out policies destined to damage our prosperity and lower living standards, are now embedded in the government’s DNA. (Devine 2011e)

There is little doubt that the chaotic nature of politics at the time would have had an impact on this research; and the fact that so few of the participants supported the carbon tax would, too, suggest a lack of support for the Labor government, despite comments which were more generally aimed at the entire political system. Yet the vitriolic commentary from conservative media spokespeople – such as that above from Miranda Devine – also appears to have impacted on participant responses, which are sometimes uncannily similar.

The media attacks on Gillard’s government were scathing. As Stevenson has pointed out, media commentary on the carbon tax was largely focussed ‘on gendered interpretations [of] Gillard’s supposed “lies” and the Opposition’s recurrent emphasis on her inability to be an arbiter of the “truth”’ (2013: 60). For instance, when Tony Abbott was accused of making a joke of the anti-rape slogan ‘no means no’ for applying to Gillard, conservative commentator Piers Akerman was eager to defend him, and repeat the phrase: ‘he [was] merely pointing out an obvious fact. Gillard’s “no” does not mean “no’ (Akerman 2010) in relation to the carbon tax. Andrew Bolt, too, ran multiple columns with the headings ‘Gillard confirms: she lied about no carbon tax’ (2011a), ‘Gillard lies to excuse her lie’ (2011b) and ‘Gillard regrets not lying about her carbon tax lie. Trust women?’ (2013a).

11 Quote from Piers Akerman (2010), a conservative commentator, discussed further below.
In particular, there was outrage over the influence of the Australian Greens Party. The day immediately following the announcement of plans for a carbon price, the *Daily Telegraph* ran a front page cartoon with an image of Gillard, nose extended to look like ‘Pinocchio’ and bold letters reading ‘PM’s green money machine’ (Crook 2011). Bolt was eager to point out the Greens hold ‘just one of the 150 seats in the House of Representatives’ (2011b), conveniently forgetting that they held nine in the Senate (Australian Broadcasting Corporation (ABC) 2010b) and received 11.8% of the national vote. This, along with Labor’s 38% gave that coalition 49.8% of the national vote; while the Liberal, National and other parties of the conservative Coalition votes came to 43.6% (Australian Broadcasting Corporation (ABC) 2010a). When it came to discussing the Rudd/Gillard government, interviewees again reflected much of the conservative commentary, arguing in particular that Gillard could not be trusted, that the Greens were in a position of power which was undemocratic, and that Labor was only being opportunistic by attempting to implement a price on carbon.

If there is a general feeling among the public – and interviewees – that politicians cannot be trusted to keep their promises, the turn around on the carbon price by the Gillard government has joined with the Howard government’s implementation of the goods and services tax (GST)\(^\text{12}\) as a prime example in Australian history. This was pointed out by a number of participants:

> Mick: when they can turn around and say ‘yes I know we promised this in the last election but this is the way it is’, how do you trust them?
> Narelle: Yeah but the way I see the last election was – they did honestly go in saying, ‘no, we’re not going to put it in’, but when they went into bed with the Greens to form government – the Greens are playing the game – the Greens are the ones who are telling this party to come into it, so when you look at it, it’s not the Labor or the Liberal that want it, it’s the Greens that want it.
> Mick: But still a promise is a promise...
> Narelle: If they said no, then it would have been a double dissolution and we would have had to go to an election tomorrow – we would have been voting again by now, so they’re holding government, but the thing is, Liberal went to the government how many years ago with the GST - ‘we’re never going to put a GST in’ – they broke their promise and put it in that election year – that election term. So it depends on the way the things are swayed so that part.
> Mick: I just don’t trust what they say

- Mick and Narelle, aged care

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\(^{12}\) The conservative Howard government was elected in 1996 after promising it would never introduce a goods and services tax, yet they went to the following election declaring it would implement the tax, and although they suffered a strong swing against them as result, were re-elected and introduced the tax.
Allison argues that Gillard said there would be no carbon tax precisely because of the goods and services tax debacle:

We live in a culture that hates tax ... that’s why Julia Gillard said (laughs) before the election ‘there’ll be no carbon tax’... you know a tax is a negative, hard thing and just think to be fair, the GST was not an easy thing to sell, but boy did they put effort into selling it.

- Allison, farmer

The deep concerns over the seemingly autocratic approach of governments in relation to climate policy is echoed in research on how rural Australians viewed the policy (Buys et al. 2014), leading researchers to suggest that governments need to put more effort into public consultation and collaboration with other bodies in order to garner support for climate change legislation. Indeed, participant comments on the goods and services tax seem to indicate a normalisation of the idea that governments lie in order to be elected. This comparison, however, is not entirely original; indeed, the Labor Party itself put forward the comparison in an effort to explain the change of plan as a necessary, if unpopular, reform (Wroe 2012). One difference, however, is the overwhelmingly negative coverage the carbon tax received from conservative media publications like the *Daily Telegraph*, as the online news service *Crikey* pointed out (Crook 2011). While the carbon tax saw three days of negative, sensationalised front pages, in the week before details of the GST were revealed, the paper ran a concerted campaign supporting it (Crook 2011).

Further entrenching scepticism in the political system, the introduction of the carbon tax put the processes of forming government into the public eye. It took 17 days following the 2010 election as three key crossbenchers met with Julia Gillard and Tony Abbott in order to negotiate which party they would support to form minority government; days during which all were under immense media scrutiny (Grattan 2013). While this might be seen as a transparent display of the realpolitik that occurs in parliament; it also left the Labor government vulnerable to scrutiny for their lack of determination on climate policy. James:

It was trotted out like that, you know, they’re changing face was a really poor move. You know Tony Abbott’s not too strong on – you know, his attitude to climate change is don’t put a carbon tax in – but let’s have incentives and get people to change their behaviour ... And then the Labor Party in a way is – there hasn’t been that sense of conviction, because they changed their mind, just like that. Right, so in a way I guess my thought is that climate change still isn’t taken seriously. There isn’t the conviction. In a way it’s saying, ‘we’re no different’. ...The only difference is probably that the Greens are pushing it, right. And the only reason the Labor Party have come back, and the Gillard government has changed their mind, is that they’re in a hung parliament.

- James, renewables consultant
Not only does James here point out that it seems like Labor’s position is actually very much in line with the Coalition’s on climate change (‘it’s saying, we’re no different’); he is sceptical of their motives in implementing a tax in order to overcome the problem of the hung parliament.

The move by the Gillard government to form a minority government with the Greens was often discussed by participants as being both dangerous and creating ‘instability’, reflecting the narrative aggressively promoted by the Abbott opposition at the time (Grattan 2013; Hartcher 2010), and pursued with vigour by conservative commentators (Bolt 2013b; Devine 2011e).

If I’m Julia Gillard, I’m working in a minority government, I’ve got to appease the Greens over here, I’ve got to corral independents in the lower house, I’ve got to keep my own party in line with the union movements – and I’ve just said that I’m going to deliver a carbon price. So I’ve staked my political future on it – do I really care about the policy nuances – of whether this is good public policy or not? No, I’ve got to deliver this thing because I’m going to be going into an election.

- Amber, international resources

Richard made similar comments:

You know with a minority government there are too many compromises, you can’t make the hard decisions because you’ve got to keep everyone in the boat, or - how many it is in the house of representatives? So you know maybe the only thing that comes out of this current government might be something to do with poker machines.

- Richard, banking

Oscar:

You know we have a very fragile government, they only need one person to cross the floor, they need one person to resign, they need one person to have a heart attack, one person to become ill, one person to have a family crisis and decide to leave politics you know and they’re no longer able to form a government. So, so, it’s a very fragile government. ...The alliance – in inverted commas – between the Greens and Labor is equally fragile and it’s sort of the alliance you have when you don’t have an alliance because they have very different philosophical positions.

- Oscar, international resources

As it turns out, the Gillard government – while voted out at the 2013 election – achieved a great deal in terms of legislative reform, especially when compared to the current Abbott government (Grattan 2013). At the time of writing, the Abbott government had passed 262 pieces of legislation successfully; this compares to Gillard’s 329 over the same period of time (Ireland and Hunter 2015). Yet in these comments, participants reflect both a deep scepticism of the motives

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13 In fact, these comments are some of the more considered observations of the Greens. Participants discussion about the Greens and Environmentalists is further explored in Chapter 10, ‘The Green Elite’.

14 Here, Richard is referring to South Australian Independent Senator Nick Xenophon, who was originally elected on an anti-poker machine platform and has since become a key ‘deal maker’ for successive governments when they’ve not had control of the Australian Senate.
of the Gillard government and of the processes through which its legislative agenda was achieved. Whether it is participants’ intention or not, the distrust in these processes also works to legitimise what has been more commonly the norm in Australian politics – the two-party system – tainting the Greens as extremist and other independents as narrowly focussed on one or two electoral issues.

Adding further scepticism to the intention of the policy was government talk of compensating households for the everyday costs it might impose:

What I see with the carbon tax, is we’re just starting to give all the money back again, you know, and it just seems bloody cra - it’s so political! So I’m pretty cynical about that.
- James, renewables consultant

James' use of ‘political’ was not an uncommon pejorative from participants, again evoking a sense that politicians are only after power for power’s sake. Steven also uses the term, and says the compensation is 'bad policy', and 'bad economics' – a means of trying to cover up the impact in order to maintain votes:

With the whole ETS, it was, was a bit bizarre. What the ETS was, was I think political, politics was overriding common sense with some of the, the ETS as proposed that finally didn’t get up.
... it was social engineering because they were going to use that war chest to compensate low income earners etc. from the, from the hard reality of what costs an ETS was going to add to the cost of living. I think it’s just bad. Bad policy making, it’s bad economics. I did a min – apart from my MBA and my mining engineering I did a mineral economics degree. So I’ve got an economics degree as well. And I just thought it was bad, bad economics.
- Steven, coal

It is clear from participants’ descriptions of the intention to compensate households – ‘political’, ‘social engineering’ – that they do not see the decision as being primarily about assisting households deal with any expenses of the policy that are passed on to them. Rather, they see it as a cynical manoeuvre aimed at ameliorating any electoral fallout from having changed their position on the issue. Steven’s final comments on the economics, and pointing out that he has an economics degree, suggest an attitude that he knows better than the government. Lisa, too, critiques government policy – contrasting politics with what she sees as the more cautious practices carried out by businesses:

If they worked for – you know, in like a company like I work for, you've got to look at what’s the best way of doing that, what's going to give us the best outcome, um overall. Not just like at the end of the day, what's going to make sure it's finished at this date – that seems to be their number one concern.
- Lisa, maintenance
Such comments were also common from other participants who often argued that the government does not know or understand what it is doing; many of these participants were also actively lobbying the government in order to minimise the impact of any climate policy on their businesses.

9.5 Lobbying – ‘I can’t find a nice way of putting it’

Vanessa: Have you been involved much with the negotiations and that sort of thing?
Yeah, I suppose I have been, I can’t find a nice way of putting it – lobbying yeah (laughs).
Ahhh – and yeah indirectly in negotiations, yeah.
- Steven, coal

While participants recognise a valid role for government in creating policy, they are assertive in their critique. These go beyond participants’ reflection of mainstream views about politics; the distance from which they make these observations is, for many, much closer than the average voter. It is well known that the more carbon intensive industries have played an active role in lobbying government in relation to climate change policy – indeed, as was exposed by Guy Pearse (2007), both Labor and Coalition governments were intensely close to industry, and allowed them to write their cabinet briefs (Cohen 2006).15 A number of participants admit that they are involved in the lobbying process, although they are not always forthcoming with the content of what occurs. Participants exercise their economic – and possibly social - capital in order to gain access to politicians, and both their economic (again) and cultural capital to persuade politicians and the public that their proposals for policy are better informed and better overall for the nation. These mechanisms are evident in the way participants offer detailed analyses of what went wrong with the CPRS, and what problems the carbon tax was, at the time, facing.

For much of his interview Oscar gave a detailed, political analysis and breakdown of the problems with Labor’s proposals for a price on carbon. This is just a small segment of that discussion:

Vanessa: Why do you think the CPRS didn’t get up?
Ok there were few reasons for this. One reason was the rate of its introduction. So the government had a very tight – it seemed, to a lay person there was plenty of time – no, there wasn’t plenty of time. The government had a very tight time line. And as a result of the time line it set for itself, the normal consultation process that would normally occur for such a significant economic reform – eg. the GST – didn’t happen.
Right, so the modelling the government did was all done in house, for example. There was very little sharing of that modelling, there was very little, actually confidence in that

15 Detailed discussions of this issue can be found in Pearse (2007; 2009; 2010); Hamilton (2007; 2001) and Christoff (2013).
modelling, by anyone other than the government because it was a black box. Whereas if you go back to the GST, what happened there is the government of the day farmed out the modelling to lots of different, economic consultants, basically it was all open, anyone could see how it was all put together, there was lots of peer reviewing, there was lots of time to sort of tweek it and for people, for people to sort of get confidence in it. That was not the case for the CPRS, it was a black box, and the government says it was the most comprehensive modelling exercise ever done in Australia, that’s just not correct. Far from it, I saw an analysis which was the number of person hours spent on that modelling, versus the number of person hours that was spent on, for example, a particular dam – building one dam, and it was less than what was spent on building one dam.

Vanessa: Do you know where that was?

Hey?

Vanessa: Where that analysis was?

Um. No I don’t (laughs)\textsuperscript{16}

- Oscar, international resources

Oscar again raises the comparison of the goods and services tax, and makes a claim that the treasury modelling for the scheme was flawed. Indeed, throughout both the CPRS debates, the carbon price and the debate over the minerals resources rent tax, a common tactic of the industries involved was to offer alternative modelling which would suggest much worse impacts of the policies than the government’s modelling had suggested; primarily, that the government had underestimated the negative impacts for the mining industry (see, for instance Maher 2011; Farr 2009; Hooke 2009). This was generally discussed in public in terms of jobs, as a strategic means of involving the public and local mining communities in the industry’s campaigns.

This broad strategy – of lobbying, offering business modelling, and, perhaps more importantly, influencing public opinion, is described by Steven also:

I’ve been - held senior positions with our industry associations so – which I must say don’t hold nearly the sway or the influence that the media again make out. I can assure you this rubbish about somehow industry buying favours is absolute rubbish – I wish it were that easy – I really do. I think what we – what industry does put, genuinely, I think are reasoned arguments and models and statistics and so on. To try and counter the emotive arguments that tend to be put by others. And government does have a dilemma. It’s got – it’s got communities that are totally driven by, by heart – rather than by head and by – by misinformation.

- Steven, coal

While such comments are intended to reassure any concerns that the mining industries are able to hold sway over government – despite, as discussed above, there being a wealth of information in the public realm which captures this – Steven is also outlining the fact that the industry does not only engage in direct lobbying of governments, but attempts to sway public communities to support them. Such an engagement shows the ways in which the strategies of

\textsuperscript{16} It was unclear whether it is available publically, but I’ve not been able to find the modelling to which he refers.
the companies are planned in detail to operate at all levels, and are far from the removed spectator politics of business ‘waiting for certainty’ that is often claimed.

Oscar’s description of his company’s approach to climate change is similar:

We have a climate change strategy, which you can simplify down to three pillars. The first pillar is engaging with governments to try and help them get the policy right. So making sure they have access to good data, making sure they’ve got real information on how business operates because often government doesn’t really understand – and vice versa, having worked both sides of the fence I can say it is, it is vice versa as well. Um – ah – ensuring that the company’s interests are considered in government policy making, but at the same time ensuring the government policy making is going to be environmentally effective and economically efficient.

- Oscar, international resources

Oscar’s explanation illustrates a key intersection between government policy and corporate lobbying – the company’s very first ‘pillar’ in response to climate change is ensuring government’s get the ‘policy right’ – ‘ensuring that the company’s interests are considered in government policy making’. In the latter part of his explanation, he also describes the need for policy to be ‘environmentally effective and economically efficient’ as though this is also part of the company’s responsibility. Any need for distance between government policy and the company is ignored, explained away with a discussion about the government not understanding business (and vice versa). There is little controversy in the idea that governments undertake stakeholder consultation when devising policy; but what is surprising about Oscar’s discussion is that this is the highest priority of the company when responding to climate change – not technology research and development, not efficiency investments or diversification of the company’s portfolio – but influencing government policy.

While a number of participants note that all they need is ‘certainty’ from the government, there is little doubt that if this is not the type of certainty their company prefers, there will be consequences. Trevor argues the former:

If you approach the industry saying this is the new guidelines, this is the rules, we’re going to give you a certain amount of time to clean up your act, and to adjust, and if you don’t provide a solution then we’re going to put taxes on those that haven’t solved the problem. Rather than a tax appearing overnight.

- Trevor, research

Amber’s comments are similar, but contain a veiled threat to a government that gets the policy ‘wrong’:

Now look, if Australia makes a decision that it doesn’t want any more coal mining, or it doesn’t want any more mining – that’s a valid policy decision. …But they need to understand
the downsides to that and what the opportunity cost is to that. 
- Amber, international resources

Like Oscar – and a number of informants from Pearse’s research - Amber had worked on the government side of politics, as a former advisor to a member of parliament. She had also participated on behalf of her organisation in the UNFCCC processes in Bali, Copenhagen and Cancun. The type of participation that these interviewees have in the political process is a far cry from that of a neutral observer, and while these particular participants stand out in their roles as coal industry representatives, as we have seen in the previous chapter, they are the most vocal and influential on climate policy.

Indeed, as Thomas, who is one of the more critical observers of the role of the coal industry, notes, the success of the industry in confusing people over the carbon tax has meant that even people who might have otherwise supported the policy, like himself, do not:

I think the carbon tax debate has just muddied the water – I think people are confused. I think people are worried about having to pay more for normal sorts of things and I think big business is worried that they’re going to be taxed enormously – it’s like the mining tax when the mining tax was going to be brought in the mining companies all said we’re going to go broke. Subsequently they all recorded the highest profit ever. So what are we supposed to believe, when the miners say you know you can’t tax us because we can’t afford it, and then in the next breath they say ‘we’re at record profits’. So the people out on the street go well that doesn’t make any sense – we could have effectively used those extra resources which don’t only belong to mining companies, they’re a one off ... it’s a single resource, we use it once we should use it for good things for the community. Well that didn’t happen. So it’s no wonder that people are apathetic. And I think we need to get away from the carbon debate and get back to something that people really understand. 
-Thomas, renewable energy

These comments show how the struggle over the relations of definition in the field of power – between governments, environmentalists, and industry – determine whether or not support for policy is maintained.

9.6 Policy on the run

Richard’s interview offers a clear example as to why this might be the case. Even before Labor formed minority government, climate policy had been severely impacted by the polarisation of the major parties. Richard spoke in great detail about his disappointment in the constant changes to both state and federal government policies which his company had tried to facilitate.
He begins by talking about the Rudd government’s green loans scheme, a program which subsidised homeowners to improve the energy efficiency of their houses:

We got involved and we offered hundreds of loans – before the scheme was pulled out for supposedly a lack of demand - as it was said to be at the time – that certainly wasn’t true in our case, we were inundated with enquiries, right up to the deadline. ... So all of a sudden, we’ve geared up, we’ve invested time, invested money, and with no notice you know, it’s just pulled out from underneath us, and that was very unfortunate.

- Richard, banking

He then discusses their involvement in helping people invest in solar at a time when the NSW government were offering 60 cents a kilowatt for people to feed excess solar generated electricity back into the grid:

That was just going really sweet and people were coming to the technology in a very painless way ... and sure enough overnight again, from 60 cents to 20 cents and you know it’s not our only business, but I really feel for people who have committed to leases, and purchases and employing people, and hiring the equipment and trucks and you know all the stuff that’s necessary to conduct a business.

Vanessa: So what would your sort of overall assessment of those – I know one’s NSW and one of them’s Federal but -

What we’ve learnt? What we’ve learnt – It’s a horrible thing to say but don’t trust your government. Isn’t that a terrible thing to say. You know it’s really disappointing. Ah yeah - I guess we learnt a lot through the process, and we were a very keen and early participant, and yeah I’m just – just disappointed.

- Richard, banking

Here, Richard reflects on both the need for certainty, which business and industry regularly emphasise in policy debates, as well as the lack of trust which develops when this fails to occur. His comments also support the business calls for certainty in policy, and his particular example – contrary to some of the comments from more greenhouse intensive industries – shows a willingness for businesses to take part in forming some of the solutions to climate change.

Thomas is also clear on this point – he is dismissive of the carbon tax, but perhaps unsurprisingly given he works in the industry, he is very concerned about the renewable energy target:

The first thing is that if we don’t have a renewable energy target, we won’t have renewables. So the government actually has some support for renewables at the moment. I don’t believe that support is strong enough. The objective is 20% renewable by 2020 and that’s eight years away. Effectively, you can’t finance a project with only 8 years security. The government should be saying we want 50% renewables by 2050 to give the industry long term security and long term comfort because one of the things we’ve had in the wind industry, is we’ve had no security or legislation. So with a long term piece of legislation, the banks will be happy to lend the money, the renewables will get built, we’ll have a long term future with renewables. The latest piece we’ve gotten from South Australia is that a very large wind farm has been knocked back on the basis of visual amenity; so because people don’t like the look of it, it’s not going to go ahead. Now that’s a pretty major installation and
would probably replace about an 8th of a coal fired power station, which would be a pretty big contribution so when you have that sort of feedback coming from a community, saying they don’t want to look at wind farm, then either it’s been developed incorrectly or there’s not enough support from the pro lobby to say that this needs to go ahead.

- Thomas, renewable energy

It is important to observe here, then, that there is some support for government initiatives to respond to climate change; again, however, these are within the framework of ‘business as usual’ and come from participants who work in industries which stand to gain from such policies. As Mikler and Harrison’s research with carbon intensive industries found, businesses ‘perceived no business case for climate innovation’ (Mikler and Harrison 2013: 424) and therefore looked to government to produce long term strategies to assist such a shift. Comments like those above suggest that many of the concerns about short term, constantly changing, policies are problematic for these business leaders. Indeed, while these particular participants might otherwise be leading the ‘split’ of the ‘business camp’ about which Beck (1995a: 28) speaks, they are disillusioned with the political will which would support this. Thomas’ final comment, that there’s not enough support, is revealing about many of the findings of this research; that while dissenting voices and support for renewables does exist, they are less well organised, and easily waylaid by political debates which confuse the issue.

9.7 Discussion

In this way, the arguments presented by participants work to maintain the status quo; pursuing what Swartz (1997: 124-125) calls a ‘conservation’ strategy in the field of power. This chapter explores the overlap between the field of power and the field of politics, the latter described by Kauppi (2003) as, like all fields, having a modus operandi ‘around two opposite poles: the protagonists of change and the apostles of law and order, the progressives and the conservatives, the heterodox and the orthodox, or the challengers and the incumbents’ (Kauppi 2003: 778). In this case, the introduction of the carbon tax indicates a challenge from the ‘progressives’ who support government intervention to reduce greenhouse gas emissions. Only a small amount of participants are directly involved in the political field, yet all have status within the field of power. It is in this space where participant’s comments on politics and politicians become operative and influential.

Would it be the fact is that there’s not that many engineers in parliament because there’s no way they’d go there because they’re not that silly? To um – how do you get people to take ownership of government again? It would be interesting to see if we actually had voluntary elections how many would actually vote.

- Trevor, research
Trevor here is not speaking to a desire for radical change; rather, a broader and deeper engagement from the general public in our political systems. While his remarks are clearly set in the scepticism of all of the research participants here, his comments echo Beck’s (1997) desire for a new, subpolitical response to climate change.

If, indeed, Beck is right that ‘the state, business, science, law, the military, occupation, everyday existence, the private sphere – in short, the basic institutions of first modernity – become caught up in the storms of global political controversies’ (Beck 2009: 95), the conditions for a new, subpolitics are created, Australia is well set up for such a scenario. As Beck (2009) writes, as our institutions fail:

> it now becomes possible to forge new transborder alliances in order to implement highly legitimate civic goals that afford governments new opportunities for action in domestic policy against the opposition, business, the mass media and the electorate. Accordingly, in a future ‘cosmopolitan doctrine of government’ the overlapping of domestic and foreign policy – in particular, the extension of the state’s domestic room for manoeuvre through its involvement in global affairs (climate change policy) – must assume central importance. Such alliances do not fit into the traditional spectrum of party-political differences, [rather, they are] ad hoc ‘coalitions of opposites’. (Beck 2009: 95)

Yet Beck’s optimism in the face of great risk is difficult to maintain. For now, national governments and legislative change is still the primary mechanism available if we are to implement large scale responses to climate change. In contrast to Beck, interview data in this research is clearly more in line with the observations from McCright and Dunlap that theories of reflexive modernisation ‘give insufficient attention to the forces of anti-reflexivity …that defend the current economic system by challenging critiques mounted by the scientific community, environmentalists, and liberal policymakers’ (2011b: 180).

To explain the processes observed in this research, it is useful to see participants’ as operating within the field of power in order to influence the political field and legislative agenda, to examine their ‘objective relations’ to others within that field, or who would challenge their priorities (Wacquant 1993: 21).

There is little doubt that these chaotic machinations eroded the public’s trust in political parties to solve the problem of climate change. If stability and reliability are held to be forms of cultural capital in the field of power, then politicians, and particularly the Rudd/Gillard Labor Party,

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17 Indeed, since this research was originally carried out, farmers, vintners and horse-breeders have been working with environmentalists, largely against coal seam gas, in a new group called Lock the Gate. While the outcomes of these struggles are as yet unclear, such events may be an indication of the types of changes about which Beck (1997, 2009) speaks.
looked disingenuous and clumsy. Given that trust in sources of information is crucial for citizens to be willing to pay for environmental protection (Pietsch and McAllister 2010: 222); it is somewhat unsurprising that national survey data collected in late 2008 indicated a ‘significant minority’ of 36% being opposed to an emissions trading scheme (Pietsch and McAllister 2010: 225). The problems with Labor’s climate policies are articulated clearly by participants here; yet in doing so participants ignore a key detail; Labor and the Greens were trying to implement a policy against a wave of consistent messaging from greenhouse intensive industries and their allies. As Professor Ross Garnaut, Rudd’s advisor on climate policy noted, there had been ‘unprecedented lobbying from vested interests …unprecedented in Australian policy-making, the extent of it’ (Australian Associated Press (AAP) 2008).

If Labor’s climate policies were seen as a threat; a force which would disrupt the constellation of the field of power, then the arguments against politicians – even as genuine critiques – are convenient means of conserving power. The Coalition was able to remove the carbon tax on July 17, 2014 (Australian Government 2014). The mechanisms leading to this were multiple; a consistent messaging framework from the opposition parties, greenhouse intensive industries and conservative commentators which depicted the Labor government as unstable and untrustworthy was built atop an existing, deeply held scepticism in the political process more generally. Even for those concerned about climate change, the lack of trust in the political system meant that legislative agendas to mitigate the problem were looked upon with suspicion. The carbon tax was sidelined in order to reproduce the existing status of prioritising mining and the economy over climate policy that had been entrenched by the previous Howard government (Eckersley 2013: 390-391). In this way, the political capital wielded by forces opposed to the carbon tax was victorious in this particular contest; in relation to climate policy, the field of power is preserved.
Chapter 10: The green elite

10.1 Introduction

Although always controversial, the rise of corporate sustainability in the early 1990s was often depicted as a paradigm shift towards a balance of economic, social and environmental imperatives (Hawken et al. 1999; Sharma and Starik 2002). It led to new research developments and a growth in multidisciplinary research, in particular from researchers interested in ‘organisations and the natural environment’ (Sharma and Starik 2002: 1). It also led to new reporting regimes for industries, many of which now report on environmental and social standards as part of their regular reporting regime. The growth in support for sustainability has led Peter Cristoff (2005) to wonder whether ‘we’re all greenies now?’ On the other hand, numerous commentators have labelled corporate sustainability initiatives as little more than ‘greenwash’ – a process by which companies attempt to distract public attention away from their environmentally damaging practices (McKewon 2012). Corporate sustainability has also come under attack for its emphasis on the ‘triple bottom line’, with strong evidence showing that ecological sustainability is often compromised when it threatens to impact on ‘economic sustainability’ (Pataki 2009).

Climate change further highlights this tension, as businesses come up against environmental barriers which impact on economic imperatives. For many participants in this research, this is the key conflict which defines their perception of environmentalists. While participants accept the concept of ‘sustainability’ as one that can be interpreted to include economic imperatives, they rarely support environmentalists or the Green Party. Indeed, even those who are concerned about climate change see environmentalists as extreme, and the Green Party as a danger to the economy. In a similar vein to their discussion of the Labor Party and the carbon tax, participants echo the rhetoric of conservative commentators. While there is a large body of literature on the role of the U.S. conservative movement and fossil fuel industries in casting doubt over climate science (see, for example Jacques et al. 2008; McCright and Dunlap 2000; 2003; 2010; 2011b; Dunlap and McCright 2008), research in Australia has focussed on the role

18 While participants sometimes talk about environmentalists, and sometimes about the Green Party, they do not always clearly differentiate between the two, except when talking specifically about government.
of the mining lobby in combating action on climate change (Pearse 2007), rather than the transference of denialist rhetoric on climate change through conservative media.

An exception to this, McKewon (2012), presents a number of ‘fantasy themes’ that are reflected in Australian papers against climate change science through the ‘Plea for Scientific Truth’ and ‘Religious, Political and Economic Conspiracies’. While McKewon’s work focusses on arguments from the Australian conservative think tank the Institute of Public Affairs, a quick examination of the work of known conservative commentators such as Michael Duffy, Andrew Bolt, Piers Ackerman and Miranda Devine reveals a range of similar arguments in the popular domain. Some of the more common themes from these authors in relation to environmentalists and climate change include labelling anyone known to agree with climate science as ‘warmists’ and ‘alarmists’, arguing that their understanding of climate change is following a ‘warming religion’ which silences dissent and that there is a financial incentive driving this ‘belief’ (Duffy 2004; Duffy 2005; Ackerman 2008; Bolt 2009a; 2010a; Bolt 2012; Devine 2011e; Devine 2012; Devine 2011a; Devine 2009).

A particularly strong narrative presented by these commentators is that people who are concerned about climate change form part of an ‘intellectual elite’ who are influencing policy, but are out of touch with the needs of ‘ordinary’ Australians. Such a tension has been part of Australia’s history since colonisation, where the move away from the strict class categories of England was supposed to be the start of an egalitarian society. This Australian ideal is often employed to taint progressive individuals, and the policies they support, as being elitist, and not caring about the ‘average’ Australian, usually by political commentators from the conservative end of the spectrum. These arguments have been played out in debates about ‘black arm band’ history and, more recently, they form the basis of a book by Nick Cater (2013) an editor for The Australian newspaper. In her praise for the book, Miranda Devine sums up its sentiments:

A new ruling class of university-educated “progressives”, “sophisticates”, “elites” and “latte-sippers” have emerged as an un-Australian clique trying to lord it over everyone else. Controlling media, law, education and the political class, they threaten Australia’s great egalitarian democratic project (Devine 2013)

Much of the data in this research is reflective of the arguments put forward by these conservative commentators, suggesting a widespread transference of their ideas, at least within the business community studied here.

As Whitehouse and Evans (2010) have shown, the term ‘greenie’ has persisted as a means of categorisation and marginalisation of people who are seen to be on the ‘extreme’ end of support
for environmental protection. Their research on environmental educators, titled ‘I am Not a Greenie But...’ highlights the idea of a sense of there being a scale in relation to environmentalism – from ‘deep’ green to ‘light’ - which is also reflected in this research. At one end of the spectrum, environmentalists in this research are depicted as naïve – as wanting to protect the environment out of goodwill, but not really understanding the economic costs that this will incur. At the other, they are seen as dangerous radicals, anti-humanists who would plunge us all into darkness, living in caves (Jennaway 2008). This stance is depicted as being guided by ideology, rather than ‘economic sense’. This chapter explores the way participants in the research discuss environmentalists, and finds that – regardless of their own position on climate change – participants identify environmentalists as being on the extreme end of the spectrum, and therefore see them as being unreasonable and sometimes untrustworthy. While perhaps not surprising given the economic outlook of participants, this distrust – and sometimes active undermining – of environmentalists, and in some cases the science of climate change, highlights the resonance of participants’ identity as ‘business people’ and can also undermine any positive paths of action.

These divisions are a crucial part of the struggle in the field of power. Environmentalists, Green Party politicians, and even scientists here are grouped together as part of an ‘elite’ which is out of touch with the everyday needs of ordinary people. Just as Devine refers disparagingly to people with a ‘university education’, environmentalists, Green Party politicians and scientists are identified by their prioritisation of cultural capital and asceticism. In this way, the fierceness with which participants speak of environmentalists can be seen as a struggle between economic and cultural capital in the field of power. These social positions are associated with different lifestyle choices and values, the nature of which is summarised by Bourdieu thus: ‘the dominant fractions of the dominant class ... incline towards a hedonistic aesthetic of ease and facility ... [while] the dominated fractions (the ‘intellectuals’ and ‘artists’) have affinities with the ascetic aspect of aesthetics’ (Bourdieu 1984: 176). According to participants, this denial of material pleasures by environmentalists is what is seen to separate them from both participants in this research, as well as ordinary workers. In such a way, participants claim an affinity with those with less material wealth than themselves; environmentalists, Green politicians and scientists here are seen to be creating a barrier for others to attain the levels of wealth and material comfort which they themselves already enjoy. Much research suggests that environmentalists are indeed often high in cultural capital. A number of studies have found concern for the environment to be stronger among middle class, well-educated, urban and younger populations (Tranter 1999; Strandbu and Skogen 2000; Threadgold 2012). Strandbu and Skogen (2000) point
out that these values, and support for environmental protection, often align with high levels of cultural capital. This conflict, however, is also clearly about protecting the primacy of global economic capital.

As Beck notes, risks are a threat to this status quo. The failure of current social institutions to deal with risks such as climate change inevitably leads to an opposition between global capital, governments and civic movements:

Global risks *empower* states and civic movements … on the other hand, they *dismember* globalized capital because the consequences of investment decisions give rise to global risks, destabilize markets and awaken the power of the sleeping consumer giant. (Beck 2009: 66, original emphasis)

This struggle is nowhere clearer than when participants discuss the environmental movement. Attempting to discredit those who would disrupt global capital, even participants who want action on climate change close in around environmentalists, Green politicians and scientists arguing that they are at best misdirected, and at worst malevolent.

### 10.2 Do the right thing

At their most innocuous, environmentalists are seen as ‘do-gooders’ – people who have a genuine empathy and concern about the world around them, but do not understand the realities of the economic system. This discourse of environmentalists sees them as playing a legitimate role in the debate, but also warns that they are not to be trusted in relation to policy, simply because they are not able to understand it. Mick and Narelle present two differing views on environmentalists. While they think they have played a positive role in raising awareness, they are sceptical of the way their arguments are used by politicians.

*Vanessa: Ok so what do you think about the role that environmentalists are playing then in that debate?*

*Mick: Environmentalists? (pauses) I think that environmentalists sometimes are a good tool for politicians.*

*Narelle: They’re also in a way a good tool to – you know even if it’s scare tactics, to make people go –*

*Mick: But thank god we’ve had environmentalists*

*Narelle: Yeah*

*Mick: To keep people aware –*

- *Mick and Narelle, aged care*

Mick and Narelle are themselves environmental educators in their roles at work, and are very supportive of the legitimacy of this task. In this sense they are positive about the role of environmentalism. But they prefer that environmentalists focus on keeping ‘people aware’
rather than presenting alternative paths of action. It is noteworthy, of course, that they also do not trust politicians to respond to environmental problems either – something which is certainly shared by the larger community in general (Gow and Leahy 2005). Narelle argues that change has to come from financial penalties – although Mick points out that this can also be problematic:

Narelle: For the awareness [sic] and to make sure that they do turn lights on and all the rest of it. But a lot of it comes down to, until people get hit by it in the hip pocket, they’re not going to change...
Mick: Yeah, so yeah, that’s what I reckon. Oh look thank god we’ve got environmentalists but I think sometimes they can be a great tool for politicians to see at the cash registers. It’s like the rubbish and you know the land sort of years ago when they said, look we’ve run out of landfill, dadadada and I think the politicians look to these sort of things to go, here’s an opportunity to charge more money to get rid of rubbish-
Narelle: Mmmm
Mick: …We haven’t reduced our load of the rubbish so really, the impact on the environment, you know unless you’re sort of going through what we’re going through, you know, isn’t as big – and instead of people going to the tip and paying rubbish to put it in a controlled spot, you’ll see them driving up the freeways and all the rest of it – that’s why people have backed into the bush and just dump their rubbish in. So that’s having a worse impact on the environment as far as I’m concerned.
- Mick and Narelle, aged care

Narelle implies that environmentalists have a lack of understanding of what will motivate people to change – they need an economic response that will force them to change their behaviour, as well as awareness. Yet Mick also points out that this needs to be limited to something within people’s means. Both Narelle and Mick are also against the carbon tax because they feel it will be too expensive and ineffective. In many ways this discussion between them reflects the quandary of sustainability as a driving force for change – although there is a desire for improved environmental outcomes, this must be carefully managed to cater for competing economic interests. Ultimately, changes need to be small and efficient, and environmentalists are not really aware of how this can be done.

Alison is another participant who argues that environmentalists need to do more work in terms of raising awareness. Alison is a strong public advocate for action on climate change. She is conducting research into a potential commercial solution for capturing carbon dioxide, and runs an organic farm. In many ways, she would be more aligned with the environmental groups campaigning on climate change than the business industry. Yet, as she describes it, she does not believe that the environment movement is contributing to the public debate in a productive way:

I’d say as a general rule, environmentalists are quite a worrisome group, you know, it’s invariably a lot of effort in climate change [campaigning] goes into stopping things ... So they
like campaigns to focus on specific things, like not getting the third coal loader ... and let’s say even the Greenpeace campaign to not open Anvil Hill - so that you can campaign on specific things to stop because they then get used as examples -- and they’re driven by political directive ... Whereas when you’re having general conversation, people still don’t understand very basic stuff and I think that’s been very evident by Flannery’s latest thing with the commission and the report, because you know here we are, 2011, and the main point of his report is that climate change is human induced – 2011! (laughs) You know what I mean?
- Alison, organic farmer

To Alison, the emphasis on preventing the expansion of coal infrastructure – while politically topical – goes beyond the level at which the general population are understanding of climate change and its causes. Her concern appears to be partly around the conflation of the goal of political power with that of raising awareness on climate change.

Even participants who expressed strong environmental values did not think that environmentalists were able to present a clear alternative to the current economic arrangements. Lisa, who works as an environmental officer for a large maintenance company, sees the clarity of the ideas from environmentalists as a problem:

I think their hearts are definitely in the right place but I think the media picks up on anything that’s negative about anything that they’re doing ... so if one thing goes wrong, you know, there’s one kid who’s – you know somebody hasn’t thought it through properly and they’re chained to something and – ‘oh what were you thinking when that happened?’ The message gets lost. Very lost I think.
- Lisa, maintenance

As someone who is sympathetic to the cause – she notes elsewhere in her interview that, because of her role, ‘the amount of times I get called a hippy and a treehugger is just amazing’ – Lisa’s comments are more likely to reflect what she sees around her in terms of how environmentalists are depicted than her own personal critique of their arguments. This is an example of what Boykoff and Boykoff (2007) identify as a major problem with media coverage of climate change – that the emphasis is on conflict, rather than proposals for how to deal with the problem. This is exacerbated by the commercial interests of the media, both in terms of pleasing advertisers as well as audiences. This dominant framework of economic responsibility is a major barrier for environmentalists and scientists in terms of being able to present an argument that is considered reasonable by those who are less willing to take on the negative connotations of being identified as an environmentalist. While these participants are supportive of environmental measures, their ideas about environmentalists reflect a reasonably conservative view. They argue that environmentalists lack the competence to convey their solutions, as well as the ability to develop them.
10.3 Ideology

At the stronger end of criticism, participants – many of whom are from mining related industries – are much more critical of environmentalists and the Greens Party. Numerous participants argue that the Greens Party is more ideological and philosophical than practical. It is at this end of the scale that there is often a strong link between conservative discussion on environmentalists and participant’s comments. What is interesting about the way in which participants speak about environmentalists and the Greens is the claim that they are philosophical or ideological, without acknowledging that such judgements come from a particularly ideological view themselves. The rise of the Greens to hold the balance of power in the Senate was a particular concern for many conservative commentators (Akerman 2009; Bolt 2010b; Devine 2011d). Among their arguments were claims of concern for democracy, that the Greens’ policies would ruin the economy, and that they were ideologically driven. Devine (2012; 2008) regularly refers to environmentalists as ‘mad’, ‘apopleptic’, ‘apocalyptic’, ‘greenies’ and ‘crazies’ and specifically likens the Greens to communists, saying “[t]hey demand that we change the way we live our lives. They want to control the media. They are compromising our freedom. See the parallel?” (Devine 2011d). Given the role of participants within the economy, and for some, the industries in which they work, that they would depict environmentalists and the Greens in this way is somewhat unsurprising. Yet the way in which these views are expressed as though they are everyday ‘common-sense’ understandings of both the economy and politics, may also be an indication of the extent to which these perspectives are also thought to be mainstream views.

Over the three elections from 2007 to 2010, representation of the Greens in the Senate of the Federal parliament has grown from 5 to 10, and in 2010 they gained their first seat in the House of Representatives. Among other things, the Greens election platform includes support for ‘net zero carbon by 2050 … to keep global warming to less than 2°C’ (Australian Greens n.d.). Despite being elected under this platform, participants, like the commentators discussed above, depict the Greens as occupying the ‘far left’ of the political spectrum and their connections with the environment movement are seen as a cause for concern. Simon, the CEO of an aluminium company, argues that the Greens are not really ready for the power they wield:

One of the issues I think is that the Greens have had a sort of meteoric rise in terms of their influence and they’re still learning how to organise themselves and how to function collectively in an aligned fashion so they – so they’re still learning. Without getting a clear and aligned strategy. Um, without sort of being taken hostage by individuals and small groups, the way they often do their own thing.
- Simon, aluminium
Here Simon combines the arguably subtle framing of the Greens as naive – ‘still learning’, having a ‘meteoric rise’ – similar to participant comments above, with something a little more sinister – the risk that they might be ‘taken hostage by individuals and small groups’ – presumably an allusion to their connection to the environment movement. Yet the Greens make no secret of these connections – the party name, for one thing, gives a clear indication of the policy priorities; most of their candidates have come from the environment movement and they have been elected on the basis of the aforementioned policy platform. It seems, then, that the real problem with the Greens is their actual stance on particular issues, and Simon is quite upfront about this as well:

They’ve got all that storming, norming and team building to do but at the same time they’re participating in a very, very critical lawmaking in Australia and they’ve certainly quite clearly had a view that is contrary to most of industry in Australia of how to deal with the issue and, so – they’ve certainly stated their philosophical objection to transitional assistance in the CPRS at the levels that we’re talking about.
- Simon, aluminium

He is clear in these final words that this is a problem because they disagree with his industry’s response to the carbon price. Yet rather than state this upfront, the context is given in which the Greens are depicted as inexperienced, beholden to the environment movement and ‘philosophical’.

By contrast, participants argue for a more generous approach to climate change policy; one which incorporates business incentives, efficiency and a growth economy. Because the Greens and environmentalists are seen to be at the ‘hard’ end of this scale, participants dismiss them, and sometimes attempt to claim the title of ‘real environmentalists’ while doing so. Trevor is the CEO of a research organisation that works with numerous greenhouse intensive industries. He identifies a division between ‘real environmentalists’ and those who – he claims – are ‘trying to shut down the coal industry’:

I don’t think the real environmentalists are running around saying shut down coal mines. I think people are really still really focussed on how we’re using the energy. You get the extremists that come in and say ‘let’s shut down all the coal mines’, but most environmentalists I’ve spoken to realise that’s not the answer, the answer is how do we as a nation, and the point of our history that we can most afford change – structural change in our society and our business structures – how are we going to harness that, which is coal sales and iron ore, so that we are well equipped when the coal stops.
- Trevor, research

In Trevor’s view, there are two types of environmentalists: ‘real’ ones, who are pragmatic in their concern for the environment – they are problem solvers who want to work out how to
change in a way in which we can ‘afford’ it; and then there are ‘extremists’ who are unreasonable and want to shut down the entire coal industry.

The sense that Green’s policies come from a philosophical base was common among participants, and often directly contrasted to what was presumed to be a more practical, or pragmatic, approach to climate change and governance in general. Steven, the CEO of a coal company, puts it succinctly:

I mean I think the Greens are genuinely a huge worry because I think they are – they have a very specific agenda that doesn’t take into account the complexities of real life.

- Steven, coal

Oscar agrees, although his argument takes on a more nuanced stance:

I think they’re philosophically driven. I think they need to get a dose of reality quite frankly. Because, you know, the Greens position is logically sound. The Greens position is – the science says that we need to reduce emissions at this trajectory in order to avoid dangerous interference with the international – with the climate system ... Which is logically all correct. Um, the issue with it though is that that trajectory is extremely difficult and extremely expensive. Unless you want to – you either spend a lot of money to decarbonise your economy, or you just reduce your economy, either way it’s very expensive. Reducing your economy means making people poorer – and nobody is going to vote for that (laughs). ... if you just take a pure science approach, it is absolutely sound but you and I know the world isn’t run on science. I started life as a scientist and I can tell you the world does not run according to science. Um so what they need to do is be more pragmatic.

- Oscar, international resources

The seeming contradiction between ‘reality’ – which the Greens need - and ‘logic’ – on which the Greens policy is based - from Oscar’s point of view, is made sense of when it is seen through the lens of economic and political pragmatism. Oscar is commenting on the difficulty of protecting ‘the climate system’ within a growth economy, but here he, like others, argue that this protection is not within the realm of ‘reality’.

Similar to a ‘philosophical’ approach is the argument that the Greens ‘ideology’ prevents them from effective governance. This is a term regularly used by Miranda Devine to describe the Greens, sometimes coupled with ‘extremist’ and related to communism (Devine 2011c; 2011d; 2011b). Natalie is the CEO of a mining advocacy organisation. She puts the Greens’ position on the carbon tax like this:

Well I mean I think, you know, you’ve got a party – like the Greens Party which basically doesn’t support, you know – coal. That’s an ideological position and they’re completely free to have that position, but when you then have a party that has that view, it becomes very difficult to have constructive discussions with them, when they don’t believe in – the industry ... [your] right to exist.

- Natalie, industry advocate
Arguably a stronger – and more sinister – way of describing the Greens than ‘philosophical’, the argument that the Greens’ are ‘ideological’ presents a similar frame of reference. That is, that their ideological position prevents them from having a ‘constructive’ conversation with the mining industry.

Some participants are outright hostile to the Greens and environmentalists, arguing that they are frauds who are primarily focussed on political power. John, the CEO of a finance company, is illustrative of the most conservative position on environmentalists. Similarly to Mick, John argues that the public is misinformed about environmental products:

> It’s become a political hot potato. Whether that’s right or wrong I don’t know, but it has. I don’t think we’re ever told the whole truth. So for instance where we’re told to purchase a certain brand of car that is a hybrid and everyone’s told this is going to save the environment, but no one bothers telling us that the additional carbon usage to make that car means that to drive the car for ten years nets off that extra carbon usage to make it, so it’s, it’s after the 11th year before you even get a benefit.  
> - John, finance

Related to this is the argument that the prioritisation of environmental protection comes at the cost of other, more important, goals:

> We’ve got kids committing suicide. We’ve got families breaking up left, right and centre – and we’re saving a bloody whale. Give me a break.  
> Save the children. Look after families. Protect our society ...  
> I think you’re a fraud if you’re out there spending all this time and money jumping up and down about a few whales, and you’re happy to go home and live in your comfortable home and not worry.  
> - John, finance

John presents a strong narrative, whereby the Greens and environmentalists are untrustworthy and anti-human. Such perspectives have been similarly argued by conservative commentators. In 2007, discussing the Greens opposition to damming the Mary River in Queensland, Andrew Bolt (2007) asked ‘how did so many of us get to so hate humans?’ Playing on the idea that environmentalists are elites who are out of touch, such a view suggests that environmentalists do not care about social justice; indeed, it suggests that the goals of environmentalism and social justice are fundamentally opposed. As with John’s comments above, this opposition between environmental protection and human needs is illustrative of the tenacity of what Dunlap and Catton (1980) famously termed the ‘human exemptionalism paradigm’ – an attempt to separate human existence from the sustainability of the environment in which we live.

The argument that the Greens – and environmentalists in general – are ‘anti-human’ is sometimes related to their political persuasion, and it is not uncommon for this to be likened to communism. John says of the Greens:
I trust them less than any other politician. If we went down to the French revolution when there was blood on the streets and we looked at the policies that led to that – my personal opinion is that they mirror what the Greens want. And we happen to be in Australia. Where we don’t have revolutions. Where we don’t have uprisings. Where we go – ‘she’ll be right mate’.
And so we let a Party like that get away with blue murder. So they’re – they’re not really a Green Party. They’re not really environmental. They make out as they are – and that’s their platform. But they’re just as bad as anybody else. It’s just their - it’s just their ticket to get into politics.
- John, finance

Similar to the accusations made by Miranda Devine in an article titled ‘Greens echo communism’: ‘They demand that we change the way we live our lives. They want to control the media. They are compromising our freedom. See the parallels?’ (2011d), John argues that the Greens are really only after political power, arguing that they ‘want’ ‘blood on the streets’. John’s later comment ends with a reclamation of the term ‘environmental’, and argues that, like most people, the Greens are really more about power in politics than protecting the environment.

While such an intensely sceptical perspective is not apparent in all interviews, the range these types of descriptions of environmentalists and the Greens - from naive to ideological – all work to delegitimize their arguments and undermine the debate around climate change. The resonance of the themes of these interviews with those of conservative commentators is striking, and reveals a particular perspective underlying participants’ comments, although this is rarely articulated. By identifying the Greens and environmentalists as being ‘philosophical’ and ‘ideological’, participants make their own assumptions about the economy and the environment invisible, positioning themselves – and possibly their conservative counterparts in government - as the more reasonable, and capable of responding to climate change. In political struggles over meaning in the field of power, one’s opponent’s position is ‘ideological’, while one’s own is ‘common sense’.

10.4 Science

There is little doubt that the discussion around climate change has become particularly polarised – with environmentalists calling for immediate action on the issue and those who continue to resist the scientific arguments behind climate change labelled – in a derogatory way – as ‘skeptics’. While previous research – albeit with a smaller sample - had revealed a strongly sceptical current on the science of climate change, this was notably reduced in the interviews for this thesis. Two primary themes are identifiable within the research here, which are arguably related.
The first is a reluctance to talk about the science at all. This comes in the form of participants talking about the overall benefits of responding to climate change, or, just as commonly, briefly agreeing with the science of climate change and quickly moving on to talk about the economic conditions under which any action must be guided. The second theme is less common but it is notable for its remarkable similarity to the conservative narrative that debate and dissent have been silenced in the discussion about whether or not climate change is real.

This aspect of the debate is played out often in interviews with participants, many of whom are upset at being labelled as climate sceptics and argue that they are being vilified for what they see as a more reasonable approach to climate change. Similarly to – and in line with – the framing of environmentalists and the Greens as extremists, participants in these interviews reject the label of scepticism, seemingly in an attempt to claim a position of environmentalism that is more in line with concepts of ‘sustainability’ as well as ecological modernisation. In doing so, they reject radical change and argue instead for progressive use of efficiency and technology in order to deal with climate change.

Given the overall lack of trust in environmentalists and the Greens in general, it is perhaps not surprising that many participants, including those who are concerned about climate change, prefer to overlook the debates around climate science. Danielle is a lawyer who is supportive of sustainability measures, and she argues that the issue needs to be framed around resource scarcity and efficiency:

I actually think the whole debate has been framed wrongly so that the discussion is about whether the climate is changing, whether it’s caused long term, whether it’s man [sic] or not ... It really should be a debate around that we have natural resources that we use in our daily lives - those resources are finite, those resources are vital and they’re scarce. What can we do about making them last longer?
- Danielle, lawyer

James, the Business Development Manager for a large consultancy company, agrees:

The other thing is, just the concept of wasting, and having empathy with the planet, is a good value for people to have. Right, so if the fear of climate change means that we have a great empathy and we’re in tune and connected with the planet, collective – connected with nature, well that’s good. So if we were fooled – we’re fooled and that forced us to do that, well that wasn’t too bad anyway, it was good. Right, so I’m not caught up, on whether the science is right or not.
- James, renewables consultant

Such comments are consistent with an ecological modernisation approach to climate change. That there are multiple benefits for protecting the environment suggests that there are particular things we should be doing, regardless of whether climate change is happening or not.
Yet by avoiding the debate about climate science, discussion about timeframes and targets is left to fit business priorities, rather than environmental goals informed by the science of climate change, taken as a fact. Thomas articulates the way this occurs in practice:

And it’s so easy to find literature that contradicts another piece of literature. So easy to find, you know, well that’s just the IPCC’s view – here’s another view. You know, with all these scientists saying this, does it mean anything? Or are they just pushing their barrel trying to get more money? Are they just trying to get more grant money for more research? (laughs) I would like to think that scientists aren’t that way inclined all the time.
- Thomas, renewable energy

Possibly for this reason, numerous participants appear much more comfortable with the idea that climate change should be framed as an efficiency problem, and often point out that this fits with the traditional business model of increased output. What is notable about this approach, however, is how well it sits with the conservative, sceptical discourse on the science of climate change. As with the comments above about ‘real environmentalists’, Anthony’s description of these as the ‘traditional green things’ before he moves on to talk about climate change – ‘lies and …fear’ – is a clear attempt to separate concern for the environment from agreeing with climate science. Anthony is scathing of the way the debate about climate change has gone, and argues that it has been a process of silencing dissent among the scientific community:

I’m involved with the University – a lot of the lecturers out there don’t believe it either, but they’re not willing to say anything, because they’ll get pushed down, you know ‘you’re just a sceptic and what do you know’ ... I’ve been to dinners with, where um you know, say eight people are there and six of the eight - and these are university people – don’t believe it. You know, and I’m sitting there thinking, well, why don’t you say something?
- Anthony, consultancy

The retelling of these types of stories has become part of the narrative of climate scepticism – as described by McKewon (2012: 284-285), ‘the villains in these fantasy themes are “elitist” climate scientists ... [while the] heroes are contrarian or “sceptic” scientists who reject the scientific consensus and Speak Truth to Power at the risk of incurring the wrath of the iron-fisted establishment’. The dominant, elite scientists here are framed as having hegemonic control over the discourse – at others’ expense.

This contestation of ‘truth’ has led to some attempting to reframe the debate and challenge the negativity associated with the term ‘sceptic’. Steven is the CEO of a coal company that’s been at the centre of much of the discussion on climate change and coal mining in the Hunter region:
I find it unfortunate that people are either labelled at the worst deniers, as sceptics, or as zealots and there’s nothing in between because I clearly I mean my background is engineering and I’m just an objective thinker, probably an optimist.

- Steven, coal

Steven here frames his discussion on the issue with a reference to the debate, claiming the middle ground ‘in between’, and reframing the terms around ‘sceptic’ with ‘objective’. As discussed in the chapter 5, ‘Non-knowing and ambivalence...’ he also says that climate change is ‘at the fringe’ in terms of how humans are affecting it, which he thinks of as being about ‘five percent’. Hobson and Niemeyer (2013) have called this type of argument as ‘causal scepticism’ although Steven here is clearly trying to avoid that label. The Intergovernmental Panel on Climate Change’s Fourth Assessment report argues that there is a ‘very high probability’ – which is defined as a ‘9 out of 10 chance of being correct’ - that overall climate warming since 1750 has been caused by human activity (IPCC 2007: 3). So where Steven is talking about disagreeing with ‘people’, he is also disagreeing with the international scientific authority on climate change.

One way that conservative commentators have attempted to undermine advocates for action on climate change has been to label concern about climate change as a ‘religion’. Andrew Bolt speaks of ‘warmists’, ‘alarmists’, ‘warming religion’, ‘warming preachers’, ‘warming doom’ (Bolt 2009a; Bolt 2009b; Bolt 2010a; Bolt 2012). Miranda Devine also talks about ‘faith in alarmist predictions’ (2012); ‘the fundamentalist zealots of the climate change movement’ (2008) and argues that ‘the real culprits are opportunistic politicians and mad greenies, whose apocalyptic warnings overcame prudence and common sense’ (2012). McKewon (2012) quotes the IPA’s Jennifer Marohasy as arguing that ‘environmentalism is emerging as a new religion, with Greenpeace, the World Wide Fund for Nature, and the World Wildlife Fund representing the new church... environmental doomsayers’ (cited in McKewon 2012: 286). The research participants who are more sceptical of climate science directly invoke some of this rhetoric:

There is absolutely no logical reason why we wouldn’t do all we can to be as kind to our environment as we can, to reduce our emissions as much as we can ... So I actually support all of that, I just don’t have the doomsday view.

- Steven, coal

Anthony implies environmentalists are ‘fundamentalists’:

It’s like fundamentalism in religion. You wonder how it actually gets off the ground and starts to spread don’t you? ... You’ve got countries where the fundamentalists get in charge and then suddenly the people who are moderates don’t get heard, because they don’t get their cover. That’s how it is at the moment, it’s amazing. To think in here, in the 21st century people in the scientific community people can’t stand up and debate the science – you can’t.

- Anthony, consultancy
This framing of those who are concerned about climate change fits neatly with the idea that they are not to be trusted. It is a direct challenge to the authoritative position of climate science, undermining the ability of the science to inform action on climate change, as well as anyone who attempts to implement policies to mitigate it. It feeds into the idea that environmentalists are ‘crazed’ – as Devine (2008) puts it – and reinforces public perceptions that they are out of touch with people’s everyday needs (Gow and Leahy 2005). As participants are reluctant to defend environmentalists or the science of climate change, the idea that climate change may not be as urgent or dangerous becomes an overarching narrative.

10.5 Discussion

The intensity of participants’ comments about environmentalists, the Greens, and climate scientists is remarkably reflective of the conservative discourse around environmental issues in general, and climate change in particular. The emphasis on uncertainty around the science, the arguments that the Greens and environmentalists are at best ignorant and at worst pose a danger to the economy have all been systematically put forward by numerous conservative commentators. While commentators such as Devine, Bolt and co. are often painted as extremists themselves, the prevalence of comments about worrying about climate change being like a religion, the Green party as being irresponsible, that there is a ‘silent majority’ of scientists being pressured into hiding their true opinions that climate change is not anthropogenic and that environmentalists are dangerous extremists indicates a very real ‘cut through’ of some of their claims to some of the most well respected leaders of our community.

Of particular interest here is the narrative that those who are concerned about climate change are elites who do not have the interests of the general population at heart. As numerous studies have indicated, trust in the source of information is vital for convincing people of the urgency and need to respond to climate change (Buys et al. 2014; Malka et al. 2009). Here we have seen participants repeat very closely the narrative of conservative commentators rallying against the science of climate change and various policy responses to it. A lack of trust, accusations of self-interest from those who support action on climate change, and elitism are all invoked to the effect of both justifying limitations on support for responses to climate change as well as actively disseminating a lack of trust in the sources of information which claim more drastic action must be undertaken. Participants readily claim that scientists are only agreeing that climate change is human induced because they can make money from it, that environmentalists would prefer to see others live in poverty while they protect themselves and the environment, and that they
may well even support revolutionary tactics that would see others killed in order to get their way – all indications that those who are concerned about climate change are elites who have little interest in democratic processes, or even little value for human life. Like the teachers and artisans of Bourdieu’s Distinction, these privileged middle class elites would impose their ascetic desires on everyone else, denying others the right to material pleasures in order to gain power over them.

While participants present a range of perspectives on the science of climate change, as well as support for ecological modernisation as a response to the issue, these views are framed by a particularly negative perspective on environmentalists and politicians. Because environmentalists are seen to prioritise the environment over the economy, they are considered irrational, even by those who share some of their concerns. When environmentalists move into positions of power, as the Greens have recently done in Australia, they are particularly targeted as being unreasonable and untrustworthy. It is not surprising, then, that in their discussions about climate science, participants are reluctant to defend the idea that climate change needs to be urgently addressed. This leaves a gap in the discussion about how sustainability might be measured and implemented in any real sense. Rather, participants defer to an economic sustainability model which attempts to increase efficiency at a pace acceptable by business interests – a solution which is far from the level of change needed to limit the worst impacts of climate change.

Considered within the framework of the field of power, however, these responses align participants more clearly on the side of economic capital. Such a differentiation assists participants to firmly identify themselves as ‘business people’ who are helping to push a responsible, growing economy, rather than ‘greenies’. In doing so, participants both align themselves with what they see as the dominant (economic) capital, as well as actively positioning cultural capital, which they align with environmentalists and the scientists that support them, as an inferior and problematic position. As noted by Bourdieu:

> In advanced societies, one of the fundamental problems arising at the heart of the field of power is that of the harmonious articulation of the diverse forms of capital that stand in objective competition with each other – making intellectuals accept that they are intellectuals and not managers, making managers consent to becoming managers by renouncing being intellectuals. For what has to be reproduced is a system of differences which defines a historically given division of the work of domination. (Bourdieu, in Wacquant 1993: 22)

Participants here actively resist any attempts from Green politicians, scientists and environmentalists to claim a legitimate position in the field of power. For those who are
concerned about climate change, this means breaking with that concern at the level at which it interferes with the legitimation of the economy, and renouncing any alignment with those who would do otherwise.

These views also indicate, contrary to Beck, the resilience of class based alliances. While risks such as climate change may provide for some level of difference when discussed in terms of abstract ideas about whether it is happening or not, participants’ sense of loyalty to the key features of the professional middle class close in around not only the need to prioritise the economy – as discussed in Chapter 7 – but they also lock out those cultural values which would challenge this. The risk of climate change is not seen, at least by these participants in this time and place, as a risk to all which disrupts the ‘first’ modernity.
Section Four: Futures

Chapter 11: Temporal considerations

11.1 Introduction

In 2006, if one were to wander around the inner city of Newcastle, the somewhat vague slogan – ‘Thorpie won’t swim – climate change is happening’ – would be seen on pavements and abandoned building walls. The slogan speaks to the frustration of communicating climate change. Firstly, that news at the time was intensely focussed on Australian swimmer Ian Thorpe’s retirement while climate change, according to the slogan, was ‘happening’. These issues, of competing priorities and the lack of recognition that climate change is happening now, are ongoing concerns for environmentalists seeking a response to the problem.

Climate change is most often postulated as an event that will happen in the future – a potentially apocalyptic risk which we are inviting with our continued use of fossil fuels and consumerist lifestyles. In this regard, as noted in Chapter 4, climate change fits Beck’s conception of risk as the anticipation of catastrophes, which ‘concern the possibility of future occurrences and developments; they make present a state of the world that does not (yet) exist’ (Beck 1999: 9). The primary scientific source of knowledge on climate change is computer modelling identified by IPCC, calculations of the likelihood of the extent of damage that will occur – in the future – if emissions are not curtailed (see, for example IPCC 2014: 61, box 2.3). Discussions of policy responses are around future targets, transition periods, caps on emissions; abstract numbers which are intended to indicate a gradual reduction in emissions towards sustainable levels, but also create a distance in the public’s mind from more tangible environmental problems (Pearse 2010).

Advocates for action on climate change make use of images – a drought in regional Australia, melting ice caps, a storm surge on a remote island nation – as current examples of climate change, with a warning – this is what will happen, more frequently and with greater damage, if emissions are not curbed (Lester and Cottle 2009). Such images are intended to take advantage of the time-space compression (Harvey 2005: 4) experienced under the processes of globalisation, and the widespread deployment of technologies which facilitate this. The idea that we are increasingly connected globally and therefore have an increased empathy and
identification with people far from us is supposed to be one of more positive aspects of
globalisation; indeed, it has been long advocated by Beck in his discussions of cosmopolitanism
(Beck 2010b).

However, as Chouliaraki (2013) has outlined in some detail, this ‘connection’ has been
increasingly incorporated into the identity of those of us in rich Western nations, whereby a
willingness to care will depend on the way it makes one feel. Indeed, such a realisation has been
deliberately exploited by non-government organisations in attempts to garner support. What
this dynamic does, however, is put the person who is supporting a cause – rather than the stories
of those affected by the problems – at the centre of the issue (Chouliaraki 2013: 1-25).
Chouliaraki has emphasised the role that distance and ‘spectatorship’ play in creating an
ambivalent response to human suffering – an ‘ironic spectator … an impure or ambivalent figure
that stands, at once, as sceptical towards any moral appeal to solidary action and, yet, open to
doing something about those who suffer’ (2013: 2).

In relation to climate change, the disconnect between the types of disasters that we are told
climate change will bring, and their sporadic, localised occurrence create a similar distancing.
That is, even with ever increasing record setting temperatures in Australia for instance, there is
an ongoing disjuncture between these smaller changes and the ability to perceive of climate
change as happening ‘now’. While people are more likely to believe climate change is happening
when the weather is unseasonably warm (Borick and Rabe 2010: 785), there remains a question
about whether this concern carries through to other days, or a decrease in one’s carbon
footprint. For most of us in Australia, for now, the weather is manageable, the shops are still
open, we go to school, work, social commitments; the apocalyptic vision of climate change is
purely that. Climate change, even for those who are concerned about it, remains a largely
cognitive concept.

Given this common framing of climate change as a problem for the future, participants were
asked where they saw the region, and the debate about climate change, 50 years from now.
While some indicate a concern for the future, this is often generalised as a sustainability issue
and projected as a temporally distant problem, suggesting there are more immediate priorities.
Participants draw on their own views of the motivations of others whom they see as being self-
interested and resistant to change, and argue that nothing will be done about climate change
until people have actually felt the impacts. One participant discusses the prospect of 10 – 20
million people having to die before anything is done. Despite this overall negative view of the
prospects for climate change, however, the majority of participants express a hope for the
future, and drawing on the idea of modernity, offer two resolutions: gradual, progressive change towards protecting our environment, or a last minute, rapid technological fix. This chapter analyses the basis of these seemingly contradictory claims, suggesting that they reflect a neoliberal doxa which includes ‘basic assumptions about [the need for] economic growth and commodity production’ (White 2004: 280), presumes self-interest in the individual, and leads to a fundamental belief in the market and the processes of industrial modernisation to eventually respond to climate change. Seen as a distant problem, climate change remains low on the list of concerns for the future.

11.2 Counting and discounting – the problem of temporality

Intergenerational equity is often invoked as a reason for us to be concerned about climate change (Lind 1995: 379-380). The predictions of more and increasingly intense disasters, the impacts that this would have on food production, the locations people can and cannot live, one’s health, are all pointed to as reasons to prevent the worst aspects of climate change. The problem of intergenerational responsibility was also noted by a number of participants when they were asked about their views on the future. Yet, echoing participant’s discussion about climate science, this concern was often framed as a broader issue about sustainability rather than climate change in particular. The idea that ‘future generations’ may be affected not only by climate change, but also resource depletion, was seen as a problem for which current generations had responsibility. Here, Jonathon returns to the theme of climate change science being less important to the issue of sustainability:

> the bottom line is that humans can be better custodians of the earth’s natural resources and there’s a lot of unnecessary waste and that we have a social responsibility to this generation and future generations as to how we use and consume natural resources and so even if climate change, even if the fundamentals of climate change from a scientific perspective weren’t sound, I would still advocate that recycling and energy efficiency is part of what the earth has.
> - Jonathon, lawyer

Narelle points out that Australia has a much better environment than other countries, particularly in terms of clean air, and says she hopes that this will continue:

> I hope we continue down that track so that you know for when our children and our grandchildren and our great grandchildren, they get to experience what we’ve experienced, they’re not living in a world that’s like I’ve seen in other countries where, you know – my sisters just came back from America and were in one of the things and you could see a picture that they took from the view, and you could just see the smog.
> - Narelle, aged care
Such comments are certainly indicative of a general sense of care and concern for future generations, and suggest an overall environmental outlook, or ecological citizenship (Wolf et al. 2009) which is consistent with the way interviewees speak about climate change as one of many threats to the future which relate to sustainability. The idea that our children in particular – and perhaps other people’s children – should have access to the same opportunities that most of ‘us’ have also had, appeals to a strong theme of democratic capitalism. This is put forward sometimes with a sense of justice – as Jonathon notes, a ‘social responsibility’, or, as Narelle says, they should be able to ‘experience what we’ve experienced’. There is no detailed articulation of the types of impacts that scientists and environmentalists might refer to – no mention of polar icecaps melting, increased bushfires, or invasive sea rise for instance. Yet as Lind (1995) has pointed out, ignoring these impacts works to limit concern for future generations, as the costs of such dramatic impacts are ‘discounted’ and not factored into our response.

Other participants argue that it is, in fact, these future generations who will make the changes needed to avoid the worst impacts of climate change.

I think in 50 years it’ll be enough time for my children to be making the biggest impact, and I think in 50 years’ time we’ll be looking back the same way that my parents [say] … remember the olden days where we just used to do this or oh, remember when you like - how dumb were you? Like, ripping all the coal out of the ground and stuff.
- Lisa, maintenance

A number of interviewees argued that younger people care more about climate change. For Mark, this is partly because they are closer to the people who will be impacted:

I think that people are much more aware now than potentially you know ten years ago – where we see it now is really the next generations, and even potentially our children’s children in that the effect of this will have a bigger effect on those.
- Mark, fitness

As noted in Chapter 5 ‘Non-knowing and ambivalence…’, Kevin initiated his participation in the research after his father, who was the initial recipient of the invitation, rejected it:

I just, I don’t know I keep on asking Dad, ‘why don’t you believe in it?’, and he said, ‘oh well –’ I’m starting to think he thinks that we’re just whingeing, you know, and we think it’s getting hotter and – they think, ‘well I remember when I was young, I used to ride me bike up hill both ways’, oh yeah, righto you know - ‘Youse don’t know how good you’ve got it’. … It’s not only Dad, but all people in his generation I’ve talked to, I’ve talked to you know some of his friends and some of his people we went to school – won’t have a bar of it, will not have a – I haven’t found one elderly person that believes in climate change.
- Kevin, vintner
In Kevin’s view, older people are the ones in the way of taking action on climate change, and he is clearly frustrated by this. These discussions indicate a belief that increasing action on climate change is a natural process which needs little intervention – that as young people grow up with an increasing awareness of the problems, the generational change brings a new attitude and solutions to these problems. Yet as we have seen in research on young people’s attitudes to the environment, these become increasingly conservative as people get older (Tranter and Skrbiš 2014). These views are imbued with hope – these participants from my study are noteworthy as being among those who are more concerned about climate change and likely to support action.

Yet the temporalisation of climate change as something to be concerned about for the future indicates a level of contentment that it will and can be dealt with later; to this extent, it might explain how immediate priorities of protecting a growth economy are reconciled, in participants’ views, with concern for climate change. Climate change is important, but is not as crucial an issue as the economy for participants at this time.

While a concern for future generations is played off against other, seemingly more immediate priorities, the limitations of our ability to predict impacts with any certainty leaves open the idea that we might be able to adapt. Consider the following discussion:

*Vanessa: Do you sort of worry about the potential outcomes that some people say that climate change might have?*

*Um. Yeah. Yeah, I do. Um – does it keep me awake at night, probably not. But no look, I’m concerned about it. …you wonder about – not so much in my lifetime but for your children and their children – how the world might be different as a result of choices that we’ve made back in our lifetime. That concerns me.*

*Um you know I think it’s interesting watching discussions now … the barbie [barbeque] type discussions about real estate and waterfront properties … people are all ‘oh I don’t know whether I’d buy that’. So people are making sort of real estate decisions that are about, that are influenced by climate change and obviously influenced by their thinking of how successful we’ll be at debating it (laughs). Which raises another point because we’ve got some people with a view that um if it’s going to happen, the ones that will survive the best if it does will be the ones that adapt the quickest.*

- Simon, aluminium

Simon indicates a generalised concern about how the ‘world might be different’ but not a worry that keeps him ‘awake at night’. He quickly goes on to discuss the idea that adaptation – things like buying the right real estate – will be the answer. Simon is of course also articulating the unequal distribution that climate impacts have on those who might be able to afford to take such precautionary measures and those who cannot; an inequality which was belatedly acknowledged in Beck’s own writings on climate change, despite some earlier glib comments about risks being democratic (see, for example Beck 2010a; and 2010b). There is little in Simon’s reflection on climate change that indicates any sense that the worst possible impacts of climate change
change will, at least, affect even those who are able to adapt. In both Simon’s and earlier participant comments, the concern for ‘future generations’ involves a lack of immediacy suggesting that the tangibility of the problem is unclear. Climate change becomes a more general concern in the context of sustainability which may yet be solved by future generations, or, as Simon argues, by making cautious lifestyle decisions which will avoid the impacts. To this end, what is counted in people’s responses is the more immediate risks, while those that are seen to be longer term are factored in, but the uncertainty around whether they will eventuate and to what extent means that these risks are ‘discounted’ in the decision making process.

11.3 Self-interest, individualism and the neoliberal doxa.

Simon’s comments allude to a common perspective offered by participants which puts self-interest at the centre of responses to climate change. This was evident in other interviews, where participant responses were undoubtedly influenced not only by their own motivations, but also what they thought motivated others. Participant discussions about the future were often premised on what they saw as ‘natural’ characteristics of humanity such as self-interest and a resistance to change. Such characteristics fed well into the common point of discussions that the market would play a crucial role in how we respond to climate change. The presumption of self-interest and that people will not support change until it is to their benefit suggests a neoliberal doxa is at work: those elements of neoliberalism which are infused so completely with one’s ideas to the extent that they are taken as a given, completely unrecognised and unquestioned (Chopra 2003: 421-426).

In the following excerpt, John is speaking of a controversial debate about whether to shut down the rail into Newcastle – but throughout his interview he speaks of the problem of self-interest as a barrier to trusting anyone involved in the debate about climate change (as per his comments in Chapters 5 ‘Non-knowing and ambivalence...’ and 10 ‘The Green elite’ on the role that scientists play).

When there’s an opportunity for someone to invest $600 million in our city – shut down the railway. Put in a light rail, it will be environmentally better, a whole lot better for the community, more attractive and it encourages someone to invest $600 million. But oh no, we go, ‘oh that’s politically sensitive, there’s 20 people travelling on that every day’. So we can it and we lose the investment. And now we’re going to have a ghost town. How dumb is that? So - I would think that we could be a whole lot more proactive as long as we consult in a sensible, logical manner with each other.
John’s comments echo the ideas of social Darwinism which suggests that humans are biologically selfish. In this case, John’s view that ‘self-interest drives most people’ has two implications – if everyone is driven by self-interest, then it would seem somewhat foolish for him, as a business person in particular, to be driven by anything else. Further, it means that the outcomes of problems we face are already set in motion – our responses will be determined by this driving force.

The idea that self-interest is a natural characteristic led many participants to argue that climate change would become a reality. In the following interview excerpt, David argues that human nature is the force holding back our response to climate change. Humans, he argues, have a natural resistance to change, and for this reason we will not respond to climate change until it becomes a more immediate threat:

The big thing is, it’s human nature, you know, we’re only worried about our patch and what’s in it for us. I think, knowing human nature and we’re going to have – you know we’re going to have to go to the edge of the cliff and maybe see what’s on the other side before we actually pull back from the cliff. Because we don’t like change and we don’t want to – the stick in the end, the stick or the consequence affects change more than, than talk. ... we’re going to have to actually see the impact first - worldwide - before we change.

- David, accounting

David’s argument that it is ‘human nature’ to wait for ‘worldwide’ impacts before we respond to a problem is not only a bleak prediction for climate change; the naturalisation of this response, if he is right, means that disaster would be inevitable. Danielle also expresses a similar view, although she does argue that ‘someone else’ can push people towards action.

If it’s not a major concern right now, if you don’t see dirty water coming out of your tap or you don’t look out there and see pollution, there’s no real impetus to do it, you know, you just bubble along – there’s no need to change. People don’t like change, there’s no need to, so without a crisis, there’s no driving force so what it means is someone else has to do the driving, there’s no internal driving thing to make that change, so someone else has to do the pushing.

- Danielle, lawyer

Yet such initiatives require leadership and support from the community, two elements which have been inconsistent over the course of the debates about this.
David extends the argument to say that this phenomenon is actually related to Australia’s national identity, which we take after our rich, American friends:

We kind of do work better when there is a – after an event, um because I think that’s how we learn. We innovate if, you know we put our hand on the hotplate, ‘well jeez, that’s hot, I won’t do that again’ - fix it. I’ll put a covering on the hot plate or I’ll burn it, I’ll do this. And that’s – that’s why this debate is, to me, so very difficult to win because no one, at the moment, you know, it’s ‘not in my back yard’. In America they don’t want any change, because you know, ‘we don’t have to change because we’re Americans’ – ‘make everybody else change’. In Australia, we don’t have to change because ‘we’re Australians’.

- David, accounting

A social psychology version of this view of responses to climate change is presented by Sunstein (2006), who argues that the ‘availability heuristic’ is central to responses to climate change. That is, that the more familiar an individual is with the risks suggested, the more likely they are to respond with caution. However, interviewees’ claims that people are self-interested, reveals more than just a problem of tangibility in relation to climate change. It reveals both their own position as well as a number of assumptions that are based in a neoliberal doxa of individualism and self-interest. The presumption that people do not want change suggests participants think most people are happy. Such a claim highlights participants’ own position of privilege as accepting the status quo. While Beck and Beck-Gernsheim (2002) highlight the difference between individualisation – the institutionalised withdrawal of state support for individuals – and neoliberalism, which ‘rests upon the image of the autarkic human self’ (Beck and Beck-Gernsheim 2002: xxi), they do note that neoliberalism is prominent among the competing choices made by individuals in this process. As they write:

The neoliberals of the world have most clearly gathered their ranks under the banner of the market and are rehearsing an attack on the crumbling foundations of primary modernity, such as the welfare state, the nation-state, trade union power or ‘ecological inhibitions on investment’. The consequences are fatal for the individual as well as society, because an antihuman image of humanity is elevated... Consequently, adaptation becomes the highest goal of character formation. (Beck and Beck-Gernsheim 2002: 166)

Participant’s presumption that others do not want change, that they are selfish, that they will not do anything about climate change and especially that they should adapt suggests an embedded belief in the neoliberal individual; that ideas of community power and action have been abandoned for self-interest – an ‘antihuman image of humanity’. That the claims are wholesale across humanity shows the doxic nature of participant claims – an internalisation of a universal truth which assumes, ultimately, that dangerous climate change is inevitable.

Beck and Beck-Gernsheim argue that within the neoliberal ideology, ‘success in the market ultimately decides existence or non-existence’ (Beck and Beck-Gernsheim 2002: 166). If
participants on the one hand respond to questions about the future with the assumption that
the neoliberal individual is determining the outcomes, the more sceptical of participants again
bring the economy to the fore. Perhaps unsurprisingly, given he is so seriously sceptical, Anthony
worries not about climate change, but the risk to the economy if climate mitigation policies are
implemented.

On a personal level, I’m really very, very concerned about the future of this country. A: be-cause our major export’s coal and B: who else is actually doing it out there? It’s going, it’s
just going to be a cost impost on us and the country’s already struggling on everything bar
minerals - it struggles to sell our products.
- Anthony, consultancy

Yet he provides two arguments which qualify this concern; that he believes the economy will be
reinstated as a priority and that he’ll ‘be dead before that’:

There’ll be – you know those extremist movements will um, will get their way partly –
hopefully not too much – and it will all suddenly become a problem, the economy runs
down, people are out of work, everything costs much more than it used to cost. Then
suddenly it will go back – a bit over shift – and then ah, you know, we’ll be ripping it out of
the ground and ‘don’t worry about the ecology’. And it’ll come back again. But ah I’ll be
dead before that – that’s what it takes, that sort of cycle will probably be twenty years at
least.
- Anthony, consultancy

In another marked difference with other participants, Anthony makes no mention of future
generations. He also sees economic priorities as at least having some resilience to environmental
concerns, despite the level of his worry that they will temporarily be overtaken. In line with the
prominent view of environmentalists being overly emotional, Anthony’s suggestion that
humanity will go back and forward between economic and environmental priorities implies that
decisions are made based on the idea of what is popular or emotionally engaging people at the
time. There appears in Anthony’s comments to be a deep scepticism about the basis upon which
these decisions are made, and again, a lack of trust that people would be anything but selfish.

Andrew is another sceptic, and when he is asked about the future he reiterates the importance
of the market in coal:

In fifty years, I don’t think it will be much different. I think it [coal] will be a cleaner industry,
therefore more technology will have gone into cleaning up power stations. I think there’s
potentially, there’ll be more underground mining, as opposed to open cut mining, because
open cuts are visual, people don’t like the look of them, they’re dusty, they’re noisy –
whereas underground’s nowhere near as intrusive. But I don’t think 50 years will have a
dramatic change, because of what I said earlier. While ever someone overseas is prepared
to pay whatever the price is for coal, and we’ve got it, I can’t see the government, the
industry or ultimately the people saying no.
- Andrew, coal
Andrew is positive about the ability of technology to clean up the industry, and concedes that there may be a demand to move away from open cut mining. Yet he also sees the economic imperative for selling coal as a constant, and argues that this will keep the industry in place. In both of these discussions about the future, participants return to economic based predictions, which assume that the directive of the market will be what guides future changes, rather than any concern about climate change itself.

11.4 Faith in progress

The question ‘What should we do?’, which is asked anew by each generation, is answered by faith in progress: ‘The same as ever, only bigger, faster, and more’. (Beck 1992: 224-225)

Perhaps the most common theme to arise from interviewees’ discussion about the future was one of hope. This typically followed two, somewhat contradictory, lines of logic. While some participants argued that we would slowly move towards a more sustainable, diversified economy, others argued that nothing would change until climate impacts were drastic, but that when this occurred the changes would be rapid. Both allude to representations of traditional modernity and, as the quote from Beck above notes, a ‘faith in progress’ which ultimately leads the vast majority of research participants to a more positive view of the future than a critical observation of the rest of their discussions about climate change might indicate.

Of those who saw a slow progressive march towards change, it was common for participants to invoke ‘hope’ when they discussed how they saw the future playing out. For Narelle and Mick, avoiding the pollution which is a problem for other nations is something which they ‘hope’ we can continue:

Narelle: Yeah, well hopefully we’ll have the clean air, because I’ve been to countries like South America where pollution is just, you just walk out of your hotel room and you just see it everywhere. I just hope we don’t turn up like them because I struggled to breathe, it was just so clogged up, and you know I hope we do have the clean air still and I hope we still have the water and supplies and all the rest of it is that – the quality of our standards in 50 years’ time will be better and cleaner and fresher, not, we’re joining the rest of the world in smog and-

Mick: And we are coming a long way, like a lot of our waterways are a lot cleaner these days

- Mick and Narelle, aged care

Dennis describes a gradual move away from coal with the help of a number of changes in government policy:

What I’ve heard that’s happening around government corridors is that coal seam gas will be the next new you-beaut cleaner – they call it clean energy but it’s not obviously, it’s cleaner than coal. ...I think we’ll have a lot more trees because of carbon accreditation and
you there will be some sort of carbon tax in some way, shape or form. ... You will see, I think, less fossil fuel use. That’s my hope.
- Dennis, thoroughbred industry

This invocation of hope projects a positive view of the future, as well as a sense that we will gradually progress towards more environmentally friendly practices; like the faith described by Beck above, there is a belief that we are generally improving the environment – ‘we are coming a long way’ – as we learn and grow.

I would hope that people come to that realisation - they go, ‘no, we’ve gone too far’ - using existing fossil fuels or whatever, the resources of the planet are drying up fairly quickly, so I hope ten years – that people [get] to that realisation. ... I’m hoping we have a real planning sort of phase so that we can say, you know in 50 years’ time we’re using fuels that don’t affect the way they do. Hopefully climate change can be settled. I’d have some real worries about where we are in 50 years’ times. I just don’t think there’s enough happening now, to make that change occur. I think it’s probably more likely that, rather than in ten years I think it’s probably more like 20 to 30 years and I think we will then have some real disastrous stuff, you know, going on, you know. But – who knows – who knows – who knows. Hopefully people will have common sense.
- Mark, fitness

Mark veers between hope and concern, discussing first his vision of what he would like to see in the future, but indicating later a worry that this will not occur. His sense of time changes in the discussion – in 50 years’ time we’ll have settled climate change, although he is still worried about whether that will be the case. He also suggests, however that this won’t happen any time soon, that this will not happen until ’20 to 30 years’ time when we ‘have some real disastrous stuff’. Yet he returns again to hope at the end of his discussion. Many of these discussions reveal an ambivalence, whereby participants are both resigned to the idea that disaster is likely, but because of the difficulty of the problem, simply ‘hope’ that things will change.

The ongoing march towards sustainability as a means of progress is another way in which ‘hope’ is evoked. Interviewees instinctively point to previous challenges that the region has faced in the past – cleaning up after BHP, or Throsby Creek – implying that this is what can be done again with not only climate change, but broader environmental problems.

We would have better more efficient and environmentally friendly transport systems. We would have um ah better usage of wind and solar power. We would have better dust control, particularly with the coal. For instance, at Maryville where they cleaned up the Throsby Creek there - looks beautiful, looks great. If you were to see photos of that, 20 years ago, it was black sludge. So they’ve done a great job there.
- John, finance
Like Mick above, Justin argues that such a progression is highlighted by the eventual clean-up of Newcastle’s beaches:

I think environmentally Newcastle rates very highly, um you go back, you go back only 30 years from BHP was blasting out, bellowing out smoke and who knows what was in it, you know Newcastle had a reputation as an industrial city. ...And the beaches are you know cleaner than they used to be, you know courtesy of the deep ocean outfalls – and um you know improved storm water drainage these days. 
...
...I think the change will be gradual and there’ll be – there’ll be an increasing emphasis on environmental protection and improvement. ...I think we’ll reconcile these competing issues, um, you know, as we always have really.
- Justin, health

Justin also notes the problem of competing issues, and argues that ‘we always have really’ eventually resolved these.

Lisa also seems to argue that the problem of climate change and carbon pollution will become an embarrassing historical moment of ignorance – for Lisa, these problems don’t fit with the idea of modernity at all:

We’re going to look back and go, ‘oh yeah, that was, the olden days when all that was happening’ ...I think we’re going to look back, and there’s going to be a time, that’s going to be very pinpoint-able and I think we’re smack bang in the middle of it now where things are changing and um yeah – it’s going to be exciting to be able to say, ‘oh yeah, I remember when...’, because even now you can sort of say, ‘I remember when they were saying the scientists were crazy’
...
... How quickly these things change, and yeah we’re definitely going to look back now, and go, no, we made that difference.
- Lisa, maintenance

Such a positive view of the progress of modernity and its effect on the environment is not, suffice to say, shared by the environmentalists. While the impacts of environmental damage may have been distributed to poorer nations, and the clean-up of visible impacts in cities has somewhat progressed, there have still been increasing and major extinctions of species, and companies operating even in the Hunter region are regularly fined for breaches of agreed waste disposal. As Dennis noted above, the move towards coal seam gas, for instance, has been touted as part of a move to cleaner energy sources; yet one of the contractors for AGL has already been fined $30,000 for illegally dumping waste water from the process of fracking (McGowan 2014). It would certainly seem, then, that participants trust in slow progress and ‘hope’ for ongoing environmental outcomes is based on a romanticised view of history. What is also missing from these narratives is any discussion of the role of social conflict in resolving these issues. While participants emphasise the positive outcomes over history, and the slow progress that they see being made, they tend to do so at the cost of underestimating the role of competing voices and conflict in any significant social change.
This is somewhat alluded to by Alison. Alison is another participant who is extremely concerned about climate change, but thinks that ultimately we’ll be able to make the change.

There’s always been inflation, there’s always been injustice, there’s always been some type of pollution, there was massive pollution on a river having abattoirs on a little stream, you know what I mean there’s always been misbehaving. Ah, the scale of this is quite significant, but you see the world’s not going to end, it’s just the human impacts of it that will change, so if humans will as an animal on Earth I don’t think – I don’t believe you know it’s quite at the destruction of everything but whether we’ve created a very miserable time for our grandchildren is yet to be seen.

... But you know humans you know you look at the world, they’re clever people. And I don’t believe in the like I think there’s two schools of thought about human nature being negative and human nature being positive. I’m a half cup full, not half cup empty type of person.
- Alison, organic farmer

Danielle, who also noted above the need for an outside ‘push’ says we will reach ‘a crisis point’ before anything will happen, but her personal demeanour as a ‘positive person’ means she thinks the problem will be resolved:

I’m a positive person generally, so you know, I always think, there’s a way through this and it’ll be sorted, but it does concern me a little, about the – the speed at which things are happening I guess and you know, obviously you need to do things before things reach a crisis point and I’m just not quite sure that we’re down that path far enough yet.
- Danielle, lawyer

Both Alison and Danielle refer to potentially dramatic impacts from climate change, but ultimately argue that this will be overcome. They say their views come from a generally positive demeanour, but they also fit well with the hopeful desires of others above who argue that change will be slow but effective.

### 11.5 Technology to the rescue

An even more prominent response from participants is that change will be rapid and radical – possibly involving some kind of technological breakthrough. If participants are dismissive of renewable technologies that currently exist, when they are asked about the future they are surprisingly imaginative about what could happen.

What if we could come up with a source of energy? And I always take the inspiration from the um, from one place we don’t have limitations, it’s called the movies – or books – you know the solution is in Star Trek and the new minerals and – they’re still mining the stuff but the minerals out there on some other planet that we could use to drive energy. It probably does exist.
- Trevor, research

Dennis is hoping the problem of energy will be resolved:
I’m hoping that there is some sort of alternate power source - that we’ve worked something out – I’m not sure what, but, or that we’ve refined our sort of internal combustion techniques to the point that the emissions are zero, or negligible and so that we can re-use the carbon for burning.

- Dennis, thoroughbred industry

Natalie also argues that technology is the answer:

I like to have faith you know, I like to think there are enough smart people out there, at least advising the politicians and enough smart academics out there who will come up with ideas, but I think the key is for us is to continue to do work in the research space in particular, continue to work on advanced renewables, continue to do work on carbon capture and storage and any other potential technological solutions ... I think the answer does lie in technology and brains – smarts.

- Natalie, industry advocate

These participants too, make use of ‘hope’ – or, in Natalie’s case, ‘faith’ – in science, science fiction and technology to counter other prominent themes in their interviews that relate to the difficulty of responding to climate change.

Along these lines, John simultaneously expresses a disbelief in some of the predictions about the impacts of climate change as he asserts that we can change very quickly:

If you look at the change that’s happened in the last 50 years in the world – it’s huge. Um, so innovations and change over the next 50 are going to be even more accelerated. So yes I think we can. I just don’t believe it’s as apocalyptic as they make out. I just don’t think it’s that dramatic. Worse things could happen to us. We could have a tsunami.

- John, finance

Our collective grim fate – described by so many participants – of the need to actually experience the impacts of climate change is regularly tempered by a positive outlook. To return to David, who argued that we would have to ‘go to the edge of the cliff’ before change would occur, he feels that once this did happen, change would be swift and, presumably, effective:

When we really, really do then change and set our minds to it, we can change exceptionally quickly. You’ve only just got to look at cars, you know I - 30 -40 years ago or 50 years ago - you know you’re lucky to get 16 mile a gallon, now they’re getting 45 or 50 a gallon if, if we really put our mind to it, we can probably get 80 or 90 and you know so basically and that’s within a generation, same thing can happen if we have to really, you know, but I, I do believe we need a fright.

Once we have a fright, well then [we’ll see] the consequence of not changing. We lost 50 million people over the year or we lost 20 mill- we lost 10 million people, well ‘yeah, we don’t want to do that again’, well ‘ok we’ll do it’.

- David, accounting

David’s analogy of the development of cars over 50 years or less suggests that we can change our greenhouse gas emissions over the same period and return to safer levels. However, it is somewhat of understatement to say that the suggestion of 50 – 10 million people dying before
there is a response to climate change is a little concerning. There is a sense from what David says that it will be humanity’s collective fault if such an event occurs (‘yeah, we won’t do that again’) and perhaps the distribution of blame means also that it is no one’s fault – a form of ‘organised irresponsibility’ as Beck (2009: 27-29) would put it. In this way climate change becomes an ultimately ironic spectacle – as long as one is able to spectate, rather than participate. Given this sense of powerlessness – or tragedy of the commons – it makes sense to rely on the hope that people will indeed make the changes necessary when they really are needed, and that ‘people’ will not include one’s self.

Claims that these changes could occur so quickly are again in line with participants’ lack of engagement with climate science, as they fail to recognise the potential for feedback loops from which recovery would not be so simple as a slow reduction in greenhouse gases over time. As climate scientists have pointed out, we are already well into dangerous levels of greenhouse gases. Once the effects are seen – especially on a worldwide scale - change is too late. Further, the idea that what will be observed is a ‘fright’ or a look over the ‘edge of a cliff’ suggests a position as the observer, rather than the person being affected by climate change – a sort of ‘exemptionalist’ idea of one’s place in society (Catton and Dunlap 1980). This may well be correct if the predictions about climate change having a worse impact on the poor than those in richer countries, but ignores the warnings that the risks are somewhat unpredictable.

These ideas are strongly embedded in the literature on ecological modernisation and the work of popular environmental economists like Christophe Freeman (1992), who followed Schumpeter’s idea of ‘creative destruction’ to argue that innovation is what would bring hope to environmental problems. The positive demeanour and predictions emphasised by participants are in stark contrast to a number of studies, also based in the Hunter, which found that young people and members of the public often held strongly apocalyptic views about the future (Gow and Leahy 2005; Threadgold 2012). As Terry Leahy, Steven Threadgold and I have argued elsewhere, the need to resolve discussions of climate change with a positive ending, as these participants indeed seem compelled to do, is also replicated in the academic arena (Leahy et al. 2010), suggesting that those with positions of privilege and power often attempt to find a positive resolution for what can be a bleak subject. While there are few immediate options for change, participants reach for ‘hope’ and radical technological change for a sense of ontological security where ‘the problem is precisely how we can cope with not so much environmental but psychic and social hazards, and maintain reasonable levels of order and stability in our
personalities and in society’ (Lash 1994: 117). In doing so, participants opt for the certainty of modernity and progress, whereby, in Beck’s words:

adherence to the experiences and maxims of modernity offers the continuity and the opportunity to overcome the restrictions of industrial society. ...the demands of modernity are asserted against their bifurcation in industrial society even in those areas where thus far new liveable, institutionalisable answers are not in the offing. (Beck 1992: 226, original emphasis)

Beck was writing some time ago, and while this return to industrialisation was what he observed as being the most prominent response to risk, he too, had hope that a reflexive technological response would be sought. Yet his vision entailed a ‘democratisation’ of such developments, a fundamental shift in the way science and technology was organised to respond to risks that would prevent previous mistakes which had a tendency to produce new risks (see Beck 1992: 228-235). This, he argued, would be a result of reflexive modernisation. In contrast, over 20 years on from Risk Society, this research suggests that such reflexivity is yet to occur.

11.6 Discussion

It would seem that environmentalists are right to be concerned about the temporalisation of climate change as a problem for the distant future – if indeed it is recognised as a problem at all. The combination of the recognition from many participants in this research that climate change is a problem, coupled with their resistance to policies that could mitigate its impacts, speaks to a lack of immediacy about the issue which leaves a gap in the urgency of one’s response. This gap is quickly filled with other priorities.

If participants’ views on the science of climate change and policies aimed at its alleviation are limited by the economic field and their personal habitus, it is to be expected that their views of the future might be somewhat more positive than those environmentalists and scientists who are accused of apocalyptic visions. Indeed, as business people with an interest in providing positive outlooks so as to encourage ongoing investment, this logic would be continually embedded through work practices in particular. Thus while participants note the potential for disaster and death as a result of climate change, this risk is propelled into the distant future. In practice, this failure to recognise that ‘climate change is happening’ prevents immediate action. Referring to the work of Bourdieu, Adkins notes ‘practice does not take place in time but makes time’ (Adkins 2009: 8, original emphasis). That is, practices are constituted by our expectations for what will happen in the future, yet in doing so, these expectations are more likely to become a reality. For Bourdieu, ‘temporalisation only takes place when habits and the habitus are
aligned with the objective conditions of the fields’ (Adkins 2009: 9). As has been evident throughout the research, the immediate concern for most participants is a growing economy and business certainty.

If participants are sceptical of individual motivations, they have a great deal of faith in the march of progress under neoliberalism. Beck (1992) argues that a continuation of the principles of industrial society is the main way in which we are responding to risk:

They were and are the self-made challenges of tomorrow; they mobilise new scientific and technological creative forces, and in that way they represent rungs on the ladder of progress. Many people sense the market opportunities opening up here, and trusting the old logic, they consign the dangers of the present to the status of items to be mastered technically in the future. (Beck 1992: 225)

Participants have little ability to envision change, there is a ‘trust’ that something will happen – either through a progressive growth of either state environmental protection or ecological citizenship; or through an innovative technological breakthrough. The progress of modernity, as depicted here, will not be stopped.

Through the lens of progressive modernity, participants present a vision of the future from which we are saved from ourselves. They argue that the response will be revolutionary, possibly involving investment and the rapid production of an as yet undefined technology. This utopian vision of the future, where humanity takes some sort of reflexive leap, is often briefly outlined – with considerably less detail than, for instance, discussions about the problems with a carbon tax – with references to hope, faith and trust; a doxic vision of the ability for capitalism to overcome any problems we might face. It is these types of arguments to which Zizek refers, referring to the work of Fredric Jameson when he notes that ‘the dream is that maybe there will be no nature, maybe there will be a total catastrophe, but liberal capitalism will still somehow exist even if the Earth no longer exists’ (Zizek 2006: 44). The neoliberal doxa, it seems, is so deeply embedded that our ability to imagine new forms of social organisation is obliterated.

Such a view sounds dramatic, yet given participants’ comments on resistance to change, it would seem they might agree. What is not recognised by participants, however, is the risk of hysteresis – ‘the structural lag between opportunities and the dispositions to grasp them’ (Bourdieu 1977: 83). The risks of catastrophe, going to the ‘edge of the cliff’, millions of deaths, ‘crisis’ are discounted against the larger threat of major social change and the potential for that to challenge the neoliberal economy. For these participants, there is little sense that they will be participating in the ‘spectacle’ of climate change; rather, they appear either to think it will not
affect them, or that (the worst impacts) will not occur in their lifetime. The irony is that by the
time it is more than a spectacle it will be too late.

It is tempting to consider these responses as a lack of reflexivity. Yet participant explanations
themselves may also be an active construction of their personal biographies – grappling towards
an ontological security and investment in their own roles, and their own futures, in what appears
to be an uncertain world – a reflexive response to environmental challenge. Through this
narrative, participants are distanced from the impacts of climate change, and may even help
find some of the solutions. It may well be that we need those disasters to which
environmentalists refer in order to be saved.
Chapter 12: Conclusion

12.1 ‘We’re in for climate change. Big time.’

I think we’re in for climate change. Big time. I think what might happen is there might be a defining event right, which is – climate change is the cause, or perceived, doesn’t have to be the cause just has to be publicly perceived to be the cause – and then there might be a bit of a panic scenario. So it’s like ‘Oh hell, the Greenland Icesheet just fell into the ocean – that’s bad’, um (laughs) you know, maybe we need to be doing something and there’s suddenly an overwhelming public call for action and then for the government to do something serious. Um which is a real risk because that will be much more expensive and less effective than doing something starting today, under more controlled circumstances. So that might, that might happen.

- Oscar, international resources

In many ways Oscar’s comments summarise the views expressed by participants. The idea that climate change is something to worry about in the future, rather than now, supports the prioritisation of economic incentives until there is a major disaster. Such an event, participants argue, will galvanise people and governments into taking action. Oscar is sceptical about the ability, however, to respond at that late stage. Like the millions who David, in the previous chapter, says might die, Oscar’s analysis of the situation is one where the problem will not be resolved until there is a dramatic event. And then, Oscar says, responding will be even more difficult. His final comments ‘that might, that might happen’ go against the grain of hope to which so many other participants appeal.

12.2 Who’s risking what?

This thesis only tells a part of the story of how we have responded to climate change; it comes from a very specific time and place in the debate. But it does not tell a particularly positive one. The part it tells, however, offers insight to social theory as well as to the issue. While Beck (1994) foresaw a potentially exciting transition to a second modernity, where risk undermined the particular power structures of modernity, such a change requires the recognition of risk as he conceives it.

For these participants, this recognition has not occurred in any meaningful way. Whether this is, as Beck (1992; 2009) would have it, an example of our current institutional inability to respond to risk, or a revelation which casts doubt over the idea of the risk society is part of the remainder of the story which is yet to be seen. We might note, however, that Beck (1992) began speaking
of this new modernity in the 1980s\textsuperscript{19}. While many participants are willing to ‘believe’ in climate change, few recognise it as a fundamental problem which requires major structural changes in response, and fewer still are interested in discussing the finer detail of the scientific indications about what type of response is needed.

Given the high level of articulation and social standing of participants, a surprisingly large proportion of participants in this research turn away from scientific explanations of climate change in favour of experiential understandings. Participants who are concerned about climate change appear to have chosen to ‘believe’. For many, observations of the weather have solidified this view. Despite there being clear differences between weather and climate (Urry 2011: 18), participants seek explanation and evidence of climate change in their own, everyday experiences, and from their own social networks, rather than science. These observations provide strong support for Beck’s (2009: 115-128) notion of non-knowing and the argument that the proliferation of debate, as observed by Boykoff and Boykoff (2007), does indeed serve to encourage disengagement with the issue.

To this end, the scepticism about science hailed by Beck as a democratic breakthrough has done little in terms of minimising risk. Rather, it is clear that this scepticism, supported by the fossil fuel lobby and conservative commentators, works to further entrench the existing power of the coal and other greenhouse intensive industries. This in turn suggests that Beck’s claims that the relations of definition (2009: 24-46) are not connected to the relations of production are, at best, exaggerated.

The research presented here suggests that our experiences of risk are differentiated, mediated by one’s position in relation to multiple risks. For many of these participants, the risk of climate change is not the increase in global average temperatures; it is not the loss of biodiversity; it is not (yet) rising sea levels. The risk is that we might move away from coal or – worse – slow down economic growth. Others see climate change itself affecting their certainty; for those in the water industry, the wine industry, farming, climate change is riskier than a policy which would alter our energy use, and perhaps its source.

This fragmentation of the experience of risk is entrenched in the individualised experiences of neoliberalism. Facing increased uncertainty, participants seek ontological security from their own positions. As leaders in their industries and companies, participants here have more security in their occupational position than many others. If individualisation has indeed dis-

\textsuperscript{19} Risk Society was published in German as Risikogesellschaft in 1986.
embedded them from their social roles, then their occupational position provides a chance to re-embed; to find certainty where certainty is less common.

Participants experience the threat of climate change in a highly differentiated way; while some see climate change itself as a threat, for others, the more immediate problem is legislation responding to climate change. Their particular connections to the industries in which they work, the security offered by those roles in an ever increasing individualised world, and the particular experiences and types of knowledge developed in those roles and elsewhere, fracture participants’ understanding and levels of concern about climate change. In the world of non-knowing, the non-knowledge we do have is filtered through a range of sources; meaning is highly subjective. Such is the self-protective mechanism of neoliberalism. If anything this thesis can add to our understanding of neoliberalism as ideology. Faced with risks which threaten the trend away from environmental regulation, the proliferation of our sources of knowledge becomes a mechanism by which we can choose to recognise risk – or not. While Beck and Beck-Gernsheim (2002) go to pains to argue against the connection between individualisation – as choice – and individualisation – as imposed by neoliberal capital – the differences themselves are subjective. The question becomes, why do we make the choices that we do?

12.3 Closing the field

One’s individual choice is anything but arbitrary. While there was not the data available in this research project to trace the nuances of each participant’s social position and develop a specific understanding of each person’s habitus, the analysis of the discursive patterns of discussion provides a compelling narrative of convergence around key understandings of the economy. Participants’ ideas about climate change are mediated through their particular vision of the economic field and their own positions within the field of power. In this regard the research supports the idea that:

The proper object of analysis is the objective relations that obtain between these various sub-spaces, and the mechanisms which tend to reproduce these relations by continually redistributing the agents who will occupy their positions, in such a way as to perpetuate the structures, and especially by inculcating the properties and dispositions appropriate to that end. (Bourdieu, in Wacquant 1993: 21)

While participants differ in their understandings of climate change and, to a lesser degree, their views about ecological modernisation, their closure around the need for economic growth is almost uniform. This is evident in the strength of two particular narratives. The first is that the
economy is out of the control of social forces and must always continue to grow. These ideas appear somewhat ironically to be based in a ‘scientific paradigm’ whereby figures – which must always be growing – are seen as objective facts which cannot be refuted. Participants here completely ignore the social factors of interpreting those figures, particularly when it comes to arguing over issues like carbon leakage, where they imply that companies have no choice but to move industries to countries with the cheapest possible price. While this may be a guiding rule, there are other factors like political stability in particular, which may influence such choices.

The second way in which participants ‘close in’ around the economy is in their attitude to the coal industry. Even participants who are otherwise concerned about the contribution of the industry to climate change and land use issues associated with mining are unable to foresee a halt to mining coal. In part this reflects a view that coal is inextricably tied to the growth economy, but the way in which participants talk about this goes even further; participants reiterate the claims of coal companies that the industry is fundamental to the history and social fabric of the region, and the nation as whole. Here in particular it is evident that a purely economic evaluation of the problem of climate change is insufficient to understand how people respond.

Rather, the research suggests that institutions and class status have a stronger role to play in our conceptions of risk than the idea of individualisation allows for. Bourdieu’s concept of field (Wacquant 1993), and in particular the field of power has been invaluable in drawing out the machinations through which this occurs. For business leaders, the economic field is doxic; it is possible to be concerned about the environment but any solutions to this problem must not disrupt the boundaries of the field, which are set firmly within the need for growth.

Their view of the coal industry also suggests that that industry has been able to use its economic capital as a means of entrenching its power in the region. Making use of its historical position and mobilising capital in the form of intensive public relations, the industry has created a type of symbolic capital which allows it to be misrecognised almost as though the industry itself comprised the economy. This appears to work in much the same way as Beck’s ‘legitimatory capital’ (2005: 240-243), suggesting the claims Beck makes about the lack of transferability of this capital are flawed. Further, the ability of the industry to invoke the idea that they are so crucial to the economy is drawn from their historical relationship with the region. This realisation supports the claim by Beck (2010b) that risks require a cosmopolitan solution; it is how to do this that is the problem. In contrast to Beck’s concerns about the limitations of ‘methodological nationalism’ this research suggests that it is in fact the national view that coal is a fundamental
part of the economy, and the basis of Australia’s prosperity, which must be understood and recognised before it can be dismantled.

Beck almost assumes that social forces – individuals, NGO’s, progressive companies – rather than economic ones, will monopolise the subpolitical sphere. In doing so, he severely underestimates the ability of conservative forces to compete. As Bulkeley (2001) and Urry (2011: 20) have shown, corporations are just as able – if not more – to mobilise subpolitical networks in order to prevent policy directions which they see as a risk. They are also clearly able to create what Beck terms ‘legitimatory capital’ with economic capital. The case for this was never so clear as in the mining tax debate (McKnight and Hobbs 2013), but can also be observed through the developments around the carbon tax. These examples also reveal the limitations of the type of consumer activism which Beck (2005: 236-243) argues has the potential to undermine ‘business as usual’ models. Contrarily, they indicate the ease with which the field of power is reproduced.

Participants reflect the concerns of many Australians in terms of a lack of trust of politicians and those who they perceive as being ‘elite’ (or, perhaps, elitists) such as environmentalists, Green politicians and climate scientists. This observation further entrenches the notion that participants see economic capital as much more important, but also shows a sense of alienation in their social position from those who support strong action on climate change. On the other hand, the willingness to perpetuate conservative discourse about the Labor government suggests an affinity with that side of politics, even though participants do not speak about this in interviews. Indeed, the level of uncritical repetition of these ideas – in particular their criticism of the Labor government for working with the Greens, who were voted into the position in which they found themselves, as well as the complaints about governments being responsive to constituents - shows a lack of reflection on democratic processes.

Arguably, however, the most vitriolic responses are left for environmentalists and the Green party – with climate scientists thrown into the mix by some participants also. Participants here show a deep mistrust of this section of the community, in part for the presumption that they have rejected the importance of the economy. Yet here again participants also echo conservative commentators who call those concerned with climate change alarmists. This response both serves to perpetuate this discourse, as well as discrediting the main source of information from which much of the public gets their information on the issue, actively blocking the notion that something more than efficiency might be needed to prevent climate change. In this way, the debate over how to respond is framed around economic and cultural capital, as well as old divisions of left and right.
Throughout, the thesis traces the convergence and divergence of views among business leaders. While they differ in their views about the climate science and the potential for an ecologically modernised future, they converge strongly in their support for a growth economy and the coal industry, and their opposition to a carbon tax and environmentalists. While the economic standing of the coal industry has clearly had an impact on climate policy, given the risks which climate change poses – increasingly recognised as both economic and environmental – it appears that there is more than just the coal industry’s contribution to the economy that is stalling a response. The power – or illusio – of participants’ commitment to growth and to coal fundamentally shapes their responses to climate change: to hold tight to scepticism and hope there are no other risks we are likely to face, or to hope that pure positive thinking will usher in an as yet unknown new development which will allow continued growth for the future.

The research is in line with McCright and Dunlap’s (2010) notion of ‘anti-reflexivity’: while Beck’s framing of a risk society seems a suitable means of understanding climate change, Beck appears to have overlooked the level of resistance to responding to this particular risk. While Beck offers individualisation as a means of analysing how we respond to risk at the micro level, he offers little data, and indeed no framework for tracing the paths between individuals and institutions in his work on risk society. Indeed, Beck appears to leap between the individual to cosmopolitanism as a means of grasping the macro structural influences on risk today; arguing that the nation state is an inappropriate level at which to conduct research. This thesis does not support this assumption. Rather, it finds that the social imaginary of the Australian nation-state as a coal producing, mining nation has deep and resilient structures which resist the warnings of a risk society and encourage leaders to seek ontological security in shared understandings of history, culture and economy.

12.4 Fractures

Around 2010, the climate action group that I had been involved with, Rising Tide, began to wind up. Short of the volunteer capacity needed to maintain itself, members moved on – some, like myself, into academia, and others into different organisations which were able to offer paid positions for the emotionally and physically difficult work of campaigning for action on climate change. A number of them are now involved with Lock the Gate, an extremely popular and successful national organisation which works with landholders to try to prevent coal, and in particular coal seam gas, projects from going ahead (Lock the Gate 2015). Lock the Gate has a decidedly ‘land use’ focus. Climate change is mentioned in its materials, but only ever briefly in
passing. Rather, the emphasis of the organisation is on landholders’ (lack of) rights to refuse mining companies access to explore on their land, as well as the potential threat to water supply from mining projects. In a similar vein, the primary climate-related campaign in recent years has been the impact of coal dust on health in the Hunter.

On June 15, 2015, the Australian Broadcasting Corporation’s flagship current affairs show, *Four Corners* aired an investigation into the future of coal (Thompson and Richards 2015). The show interviewed economists, investors, mine workers, coal executives, the Indian energy minister and the UN’s climate change chief. No environmentalists were interviewed and the focus was clearly on the economics of coal, with a minor mention of the potential impacts of climate policy settings. The overall argument was that the price of coal, which had slumped from a high of $US150 a tonne in 2012 to $US60 (Roddan 2015) was not going to recover, and that renewable energy was well on track to take over in terms of affordability, and preference. For those who had been following the issue for some time, there was little that was new in this report. What was new, however, was the fact that the argument was being put on national television – albeit on the ABC, which is regularly accused by conservatives as being too progressive. Of particular interest to this research, the disciplined focus on the economics of coal, as separate from the environmental issues, was telling.

These two vignettes indicate a change; from activists, a recognition of the difficulty of relating to diverse stakeholders on climate change. Seeing opportunities for alternative paths to interfering with the ever encroaching expansion of the coal industry, activists have developed a deliberate strategy of a ‘multi-pronged’ attack on the industry (Morton, Wroe and Manning 2012). On a pragmatic level, this research would indicate this to be an intelligent strategy – as Dennis, from the thoroughbred industry and Kevin, the vintner, indicate, there exists within these industries a growing dissatisfaction with the land creep of the coal industry, and indeed the industry bodies have been fighting a number of mine proposals with some success. In relation to the *Four Corners* program, the narrow focus on economics – and the noted absence of even The Australia Institute, which has been at the fore of arguing against the economic models of coal in Australia – can only have been a strategic decision to focus the program on an issue which avoided the now tired discussion about climate change. It would have been fascinating to follow up with some of the participants in this research to find out their response to these developments.

The research here does suggest that such an approach to climate change is more likely to achieve ‘cut through’ than directly talking about the science of the issue, or policy responses.
Participants in this research are first and foremost business leaders. For some, this includes innovation, social responsibility and sustainability. For others it means defending one’s industry at all costs. For all but one, it means defending economic growth. There is very little space in this discourse to discuss climate change; those who do are scattered and quiet in terms of their public voice, and easily distracted by other narratives. The doubts – regardless of their source – enable an ambivalence that is much easier to maintain than concern for the problem. While these new strategies fit well with the positions articulated by participants in this research, they are also an aimed at elite, niche stakeholders. It remains to be seen, however, how much taking action on climate change, without talking about climate change, will actually help.
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