

Children of the market?

**The impact of neoliberalism on children's
attitudes to climate change mitigation.**

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Master of Arts in Political Science

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Abstract.

This thesis examines the relationship between young children's emerging political attitudes towards climate change and the possible effect that the political project of neoliberalism could have on these attitudes. The research asks, in what ways and to what extent do neoliberal attitudes and beliefs influence young New Zealand children's views on climate change mitigation? Drawing from five focus group interviews with Christchurch children aged between 9 and 11, I compare and contrast the results in order to gauge their opinions, thoughts and beliefs about climate change. In doing this I ask how neoliberalism formed in New Zealand and if the neoliberal project has become so dominant in the macro and micro level policy contexts as to influence the attitudes of our youngest citizens.

What the thesis argues is that neoliberal discourse appears to have influenced how the participants view climate change, most specifically in their willingness to select individualized mitigation techniques to respond to climate change as opposed to collective actions. These findings are tentative, they require a robust larger sample, beyond the scope of a masters, and may be influenced by other factors such as the developmental stage of the children, however, the emphasis all children placed on voluntary action by individuals was striking. My findings also suggest that those who selected these individual mitigation techniques were more likely to have higher efficacy than those who were critical of such practices.

The thesis argues that individualized techniques to combat climate change are by themselves not effective to bring about significant change in order to alleviate further damage being caused to the climate system. In order to reach Helen Clark's goal of being "the world's first truly sustainable nation," collective, as well as individual mitigation must occur.

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List of Abbreviations.

CFC – Chlorofluorocarbon.

EU – European Union.

IPCC - The Intergovernmental Panel on Climate Change.

MfE – Ministry for the Environment.

NPM – New Public Management.

OECD – Organization for Economic Co-Operation and Development.

PCE – Parliamentary Commissioner for the Environment.

PCT – Public Choice Theory.

RMA – Resource Management Act (1991).

TCE – Transaction Cost Economics.

UNFCCC – United Nations Framework Convention on Climate Change.

Chapter I: Introduction.

1.1 *Introduction.*

This thesis examines the relationship between young children's emerging political attitudes towards climate change, and the effect that the political project of neoliberalism has had upon this. I seek to discover if neoliberalism shapes young children's perspectives on climate change, and what the possible causes of this shaping may be.

As Karen Nairn and Jane Higgins (2007, p.261) argue, this new generation of New Zealanders are the first to have grown up engulfed by the recent neoliberal reform period. As they state:

In the early years of the twenty-first century the cohort of young New Zealanders in transition from school to post-school lives had the (perhaps dubious) honour of being the first generation to have grown up entirely within one of the most intensive and comprehensive experiments in neoliberalism to take place in the OECD (Nairn and Higgins, 2007, p.261).

What interests Nairn and Higgins is the impact that these reforms have on this generation's perspectives towards the workplace; what I try to evaluate is what impacts these reforms have had on their perspectives towards climate change. Both neoliberalism and climate change have emerged in importance at much the same time, with the repercussions of both only becoming clearer and more pronounced in recent years. By understanding the impact that one has on the other, we can gain a greater perception as to how the children of today will respond to this environmental crisis in the future.

In this chapter I seek to define the key concepts which will be used throughout this thesis. I will then offer a justification for the studying of neoliberalism in relation to climate change. The chapter will end with a discussion of the thesis structure, which will provide a clear indication of how my question will be answered.

1.2 *Climate Change.*

In recent years the scientific debate over the existence of climatic change has moved towards some form of consensus. Increasingly climate scientists agree that climate change is very likely to occur, and that the cause of this is human greenhouse-gas emissions (IPCC, 2001;

IPCC, 2006; IPCC, 2007). By the late 1980s scientists recognised that our climate was changing, but they could neither predict what these trends would hold for the future, nor advise how we should adapt to these changes (Weart, 2003, p.160). At the same time, however, it had become apparent that the possible destructive nature of these developments could not be ignored.

For the purpose of this thesis I will use the United Nations Framework Convention on Climate Change (UNFCCC) definition of climate change, which explicitly refers to climate change as concerning *human* activities that:

...have been substantially increasing the atmospheric concentrations of greenhouse gases...and that this will result on average in an additional warming of the Earth's surface (UNFCCC, 1992, p.2).

Scientific calculations of climate change have increased with accuracy over time, with scientists now being able to predict some of the direct effects to the environment that rises in temperature will have over the next century. The Stern Report, an influential account of the economic effects of climate change, states that scientists now have a greater awareness of the “potential for dynamic feedbacks that have, in previous times of climate change, strongly amplified the underlying physical processes” (Stern, 2006, p.3). The Intergovernmental Panel on Climate Change (IPCC), the group established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, states that the changes we can expect in the next century will include:

...changes in arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones (IPCC, 2007, p.7).

IPCC reports suggest that climate change will be far more defined and have a larger impact in the 21st century than those changes which were observed during the 20th. They also state that if greenhouse gas concentrations were to stabilise at current levels, warming and sea level rise would continue for centuries afterwards due to time scales associated with climate processes. Climate change, therefore, will have deep impacts on the way many, if not all, humans live.

1.3 *Climate change and its impacts on New Zealand.*

As I have argued climate change represents a new environmental issue which will have great impacts on human society globally. This next section will look at the specific impacts of global change on New Zealand's own fragile climate. These changing conditions, it is argued by current Labour minister Pete Hodgson, have already had an impact on New Zealand society (Hodgson, 2006). He points to the extreme weather events of 2005 in which significant flooding and property damage occurred throughout the Eastern Bay of Plenty and the East coast of the North Island as examples of the threat climate change poses our nation.

Most of the climate predictions and scenarios for New Zealand's future have used a theory known as statistical downscaling. NIWA (2008) describe statistical downscaling as starting:

...with historical observations, and calculates "downscaling relationships" between broad regional climate patterns and these local climate observations. The downscaling relationships are then applied to the broad future regional climate patterns predicted by the global models, in order to provide more locally-detailed projections for New Zealand (NIWA, 2008, p.2).

The predictions of climate change impacts in New Zealand are therefore calculated by speculating how New Zealand's climate has changed in the past in relation to world climate trends, and then further extrapolating how global predictions of climate trends may affect New Zealand in the future.

What is predicted is that average rises in temperature over the next century are likely to be between 1.5 degrees and 2.0 degrees Celsius. The area with the least temperature rise is predicted to be the southern most part of New Zealand, whereas the largest rises are predicted for the northeast of the North Island (NIWA, 2008; Ministry for the Environment, 2001). These rises in temperature are most likely to reach their peaks during the winter months. Rainfall is predicted to reduce in the Eastern areas of New Zealand, with the possibility of what was previously once in every 20 year droughts becoming a more frequent occurrence. However, due to strong airflow across the country from the south-west it is also predicted that larger amounts of rain will fall in Western areas which could lead to increased floods and erosion.

It is the increases of extreme weather events such as floods, droughts, strong winds and tropical cyclones which will cause the most significant environmental, economic and social impacts (NIWA, 2008, p.4). The impact of these events in places such as the microstates of the South Pacific, which have been touted as being some of the most vulnerable and ill-

equipped to deal with such changes, may bring about added stress on New Zealand. Changes in migration patterns (IPCC, 2001a), food production or areas simply becoming uninhabitable in the South Pacific, will place a great deal of pressure on New Zealand's own infra-structure.

Sea level rises are expected to be one of the main factors which burden these small island nations. In New Zealand, due to our sea-levels rising at the world average, it is predicted that there will be a rise between 10-90 cm by 2100 (Ministry for the Environment, 2001, p.1). Such rises would be impossible for some small island nations to cope with.

It is evident from these predictions that global, national and local political structures will have to adapt and respond to these environmental changes. Increases in deadly tropical storms, decreases in agricultural production and the imminent flooding of low lying island nations is predicted to occur within generations. How political structures respond to these problems will be of great and ever increasing importance.

1.4 *How to achieve climate change targets: mitigation and adaptation.*

It is proposed by the Stern Report that addressing climate change requires both mitigation and adaptation strategies. *Mitigation* will be used in this study to refer to the actions taken by government, communities or individuals to reduce the extent of global climate change. Many different proposals exist as to how to mitigate against climate change; the best known of these is the collective agreement under the UNFCCC known as the Kyoto Protocol (UNFCCC, 1997). The Protocol states that all ratifying countries are bound to reduce their greenhouse-gas and other harmful emissions by 5.2% below 1990 levels, either by reducing their emissions or engaging in a system of emissions trading. The ultimate aim of this is stated in the UNFCCC in Article 2 as being the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (UNFCCC, 1992).

The Kyoto Protocol represents one of the largest collective inter-governmental forms of action. However, mitigation techniques can also emphasize the role of the individual in taking personal action against climate change. For instance, later in this chapter the concepts of eco-consumerism, through which people make consumer decisions based on their impact on the environment, will be discussed as one of the methods of individual mitigation.

Adaptation will be defined in this thesis as the actions taken to lessen the vulnerability of governments, communities or individuals to the negative effects of global climate change. The IPCC Working Group II in 2001 argued that adaptation has the potential to reduce many of the great harms caused by climate change, but will be of a great cost to the adapters and fail to prevent all damages (IPCC, 2001). It is recognized by the working group that adaptation will be far easier for those who have the most resources. They state that “increases in global mean temperature would produce net economic losses in many developing countries for all magnitudes of warming studied” (IPCC, 2001, article 2.8), and that a global effort will be required to help with adaptation in developing countries.

Methods of adaptation can include a variety of techniques, including infrastructure reform, better water management and more effective agricultural production methods (Easterling; Hurd; Smith, 2004). All of these, much like mitigation methods, will require a large degree of both individual and collective behavioural change, technological innovation and implementation of effective public policy.

Mitigation, rather than adaptation, will become the focus of this thesis. Although climate scientists such as Blair Fitzharris (2007, p.166) would argue that the “vulnerability of New Zealand to climate change depends on adaptive capacity, rather than any mitigation...” and that we should seek “a more balanced portfolio of adaptation and mitigation measures”, mitigation is much easier explained to children and is currently where the extensive debates surrounding climate change are found. Although I acknowledge Fitzharris’ arguments that adaptation strategies have been overlooked during the extensive debates surrounding climate change, and do not want to promote a limited focus solely on mitigation, I have chosen that this study will solely focus on debating contemporary mitigation techniques.

What we see here is that there are a variety of different ideas, techniques and plans for either mitigating or adapting to the problems of climate change. What is obvious from the most recent scientific calculations is that a range of actions are required and that any action should occur as quickly as possible. What this thesis is interested in is the impact of neoliberalism on the actions and choices of governments towards climate change, and on the direct effect these may have towards the attitudes of our youngest citizens.

1.5 *Neoliberalism.*

In this study, neoliberalism will broadly refer to the political project of economic liberalism which has emerged since the 1970s in an effort to induce increased economic prosperity as well as to entrench individual rights. The task of defining neoliberalism is a difficult one, which explains why some theorists such as Saad-Filho and Johnston (2005, p.1) argue that it is “impossible to define neoliberalism purely theoretically”. What definitions, critical or not, tend to agree on is that the political project of neoliberalism is the attempt to elevate the interests and role of the market and the private individual over that of the contemporary state (Dumenil, 2005; Tickell and Peck 2003; Lapavistas, 2005; Plehwe, D. Walpen, D. Neunhoffer, 2006; Hull, 2006).

Critical definitions of neoliberalism often go further; for example, Tickell and Peck argue that neoliberalism can be defined as the “*mobilization of state power in the contradictory extension and reproduction of market(-like) rule*” (Peck and Tickell, 2003, p.166). In this view, government power must be implemented to some degree in order to establish and maintain market power. Once this elevation of the market has occurred, it is theorized by proponents that neoliberalism will create a society which contains more individual liberties, a prosperous population and a streamlined political machine.

Tickell and Peck then continue this theme by asserting that:

...the political project of neoliberalism represents a parallel attempt not only to visualize a free-market utopia, but to *realize* these self-same conditions, as the downsizing of nation-states enlarges the space for private accumulation, individual liberties and market forces (Tickell and Peck, 2003, p.163).

This definition helps us see that neoliberalism is not simply a development in contemporary economics, but that it also represents a philosophical tradition which views the maximization of individual liberties as an overarching principle.

It is the merging of these economic and philosophical traditions that forms the conceptual basis of neoliberalism and underpins the way neoliberalism will be used in this thesis. Cowen (1997, p.341) is among the group of theorists who argue that neoliberalism draws its fundamental tenets from classical liberal philosophy and contemporary economics. Classical liberal philosophy, in this view, expresses the desire for minimal government intervention in order to create individual liberties, whereas contemporary economic theory views

government intervention in the allocation of goods as an inferior form of distribution to that of the voluntary exchanges of individual and corporate economic actors.

In this thesis I directly discuss the impacts of neoliberalism in two distinct areas; firstly, in regards to macro policy decision making, and secondly, in regards to micro level political attitudes and behaviours. This first part will be discussed in chapter two and refers to the impact that neoliberalism had on policy reform in New Zealand since 1984. In particular, I discuss the impacts that neoliberalism has had on forming environmental and education policy, both of which I believe are important towards understanding how children could develop a neoliberal worldview.

The second area, neoliberalism's impacts on micro level political attitudes and behaviour, will be discussed in greater length throughout the third chapter. Environmental theories such as 'eco-consumerism' ask that we as citizens base the rationale of our daily consumption habits on environmental or social criteria (Peattie, 1992, p.118). This is a theory which places the emphasis for political change in the private sphere, as opposed to the public or collective sphere. Using Gramscian notions of hegemony and Foucauldian theories of governmentality, I argue that these shifts towards viewing political problems as the responsibility of the individual are a result of the neoliberal project.

1.6 *Why is studying neoliberalism in relation to climate change important?*

As we have seen in this chapter, climate change is emerging as an environmental problem of such scale that it requires governments at the largest and smallest levels to make decisions regarding the crisis. Methods of either adaptation or mitigation have been proposed by organizations such as the United Nations as solutions to this environmental ill. During a very similar time period, neoliberalism has emerged in the Western world as a dominant political project, the values and tenets of which are visible in the actions of modern governments (Kelsey, 1997; Cowen 1997; Peck and Tickell, 2003).

Why though is it important to study neoliberalism in relation to climate change? I argue in greater depth throughout chapters two and three that neoliberal solutions to climate change, which emphasise the role of the marketplace and the autonomy of the individual alone, may not be sufficient for dealing with this environmental problem.

As Muldoon argues (Muldoon, 2006, p.3), viewing environmental degradation as the responsibility of the individual could create an overly narrow focus on the causes of environmental pollution: one would not like to emphasise the responsibility of the individual whilst permitting large business corporations to continue profiting from poor business practice. Maniates (2002, p.45) sums this idea up in his statement that:

When responsibility for environmental problems is individualized, there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing the distribution of power and influence in society (Maniates, 2002, p.45).

What Maniates emphasises is that although individual environmental action does make a difference, individuals' choices in the marketplace are defined and shaped by political forces (Maniates, 2002, pp.65-6). What is required for effective, lasting change is collective action which changes these political forces, rather than individual consumer behaviour within it. With regard specifically to the issue of climate change, this will require global rather than simply local or regional collective action. This conflict between neoliberalism, which re-emphasises the role of the individual in environmental action, and the collective global nature of the environmental problem of climate change represents the justification for this study. These ideas will be expanded upon further in chapter three.

Neoliberalism, as we have seen in this chapter, seeks to find methods of mitigation and adaptation to climate change which emphasise free-market economics and the autonomy of the individual. These solutions, which are debated in further detail throughout this thesis, may not be the most effective way of dealing with climate change. If our children reflect neoliberal attitudes and beliefs in their discussion of climate change, this may limit their ability to recognize and formulate different mitigation techniques in the future.

1.7 *Children and their emerging political attitudes.*

As children were the participants of the empirical research of this thesis, it is important to define them in order to give a greater understanding of whose opinions are actually being studied. The focus group studies consisted of five separate groups from three different Christchurch schools, two of which were urban and one of which was rural. All the participants of this study were aged between nine and eleven years old, which therefore places them after their early adolescence but before their teenage years.

Although the study of children's emerging political attitudes is often ignored in political science, there are several theorists who argue that the age of our participants is an important breeding ground for emerging political ideas. This politicization is an important social process, and it begins early. As Cullingford (1992, p.2) argues, it would be naïve to assume that children were necessarily "uncritical and innocent" and that large swathes of our political opinions were not formed in childhood. Dunn's (1988) studies show that children gain a political perspective early through having to work co-operatively and understand other viewpoints and opinions. Stevens (1982) also indicates that political knowledge can be garnered in early childhood. His studies showed that by age eight children are often using political phrases with accuracy, whilst earlier on they understand the concept of separate party politics and the tasks of a Prime Minister.

As will be addressed in chapter four, the validity of studying childhood political attitudes and opinions is often contested. However, as Taylor et al. (2006) argue, even if the validity of studying children is openly contested, due to the very lack of studies which have been conducted on New Zealand children's attitudes, this thesis represents an important step to filling this gap in knowledge.

1.8 *Political efficacy in the context of mitigation.*

Political efficacy has emerged as one of the most significant contributions of psychology towards the field of political research. Political efficacy, as it shall be defined in this thesis, is the feeling which exists when one believes they have the ability to form and create social and political change (Campbell, Gurin and Miller, 1954, p.187). When one has high confidence in their own ability to understand politics, to be heard, and to then make a difference politically they have high political efficacy.

Efficacy theory promotes two different components which make up its totality: internal and external political efficacy. Internal political efficacy refers to the beliefs that one has about their own ability to understand and participate in political events, whereas external political efficacy refers to the perception that the political system is responsive to their own and other citizen's requests (Niemi et al., 1991; Kenski and Jomini, 2001).

Although the theory is generally used in regards to explaining electoral engagement, in this thesis I am particularly interested with how efficacious our participants are in regards to their feelings on climate change. Will the children feel they can understand the issue, as well as having a direct impact on it? Or rather will they feel that due to factors such as their age or wealth that they are unable to help with mitigating climate change?

1.9 *Thesis Structure.*

The following chapter summarises the rise of neoliberalism in New Zealand at the macro, or state level, and investigates what impacts neoliberalism has had on particular institutions. Special notice is given to the impacts of neoliberalism upon environmental and educational reform since the 1980s.

Chapter three examines the micro impacts of neoliberalism, and in particular, how concepts of Gramscian hegemony to Foucauldian ideas of discourse and governmentality can allow us to consider how a political project like neoliberalism can become so powerful that it may enter into the discourse of our youngest citizens.

Chapter four, 'Research Methodologies,' outlines my research questions which emerged out of my reading into the macro and micro level impacts of neoliberalism. The chapter also investigates my practical research approach towards the questions. I argue a qualitative method is useful for answering this question, and then continue by explaining why focus group inquiry has been used. I outline the advantages and disadvantages for this method of inquiry, and describe techniques to gain greater validity from the results.

Chapter five, 'Research Findings,' presents the information given by my participants in the focus group studies. The participants throughout this chapter are quoted at great length in order to provide an analysis of their perspectives. From this chapter comes an evaluation of the extent to which my participants appear to reflect neoliberal discourse in their discussions on climate change. Following this, chapter six, 'Conclusion,' discusses the significance of these findings.

1.10 *Summary.*

As illustrated, the political project of neoliberalism places an emphasis on individual liberties whilst at the same time attempting to limit the influence of the state on people's lives. This creates a situation in which the individual, rather than the state, becomes the focal point of political action. Occurring at the same time is the increasing acceptance "of the dominance of the market in economic life and the extension of the market into all areas of human activity" (Arestis and Sawyer, 2005, p.177), which creates, as Slocum and others argue, a move towards viewing citizens as 'consumers' (Slocum, 2004, p.763).

This indicates that, to be consistent with neoliberal approaches, the course of actions taken in order to solve political crises like climate change should in no way limit the authority and liberty of the individual person and at every step should emphasise free market-economics. Chapter two now investigates how this neoliberal approach emerged in New Zealand and, in particular, how this impacted upon environmental and educational policy at the macro level in the last twenty years.

Chapter II: Neoliberalism and Institutional Reform in New Zealand – Macro Impacts.

2.1 Introduction.

Since the election of the fourth Labour government in 1984, the political project of neoliberalism has become entrenched in a wide range of political institutional reforms. As a result of these reforms there is now a large amount of literature that traces the impact of neoliberalism on New Zealand public policy and state structure. This chapter will focus on the macro level policy restructuring which occurred during the neoliberal reform period in two areas of relevance to the understanding of climate change and children's attitudes – environmental policy and education policy.

2.2 Neoliberalism in New Zealand.

New Zealand was not a natural home for neoliberalism. Before the 1980s, as Cowen (1997, p.345) describes, New Zealand citizens saw “the state as champion, protector and equalizer”. With a ‘cradle to the grave’ welfare system, which ensured a minimum standard for all and an agricultural sector with a large promised market in the form of England, New Zealand experienced a standard of living that few other OECD countries could manage.

However, New Zealand's economic situation approached crisis during the 1970s. An ongoing recession, the first significant recession since the end of the Second World War, began to hit New Zealand. Dissatisfaction with the government's response began to grow during the early 1980s when New Zealand suffered a period of increasing inflation, spiralling international debt and the possibility of a foreign exchange crisis (Cowen, 1997, p.345). With Britain joining the EU in 1973, the promised export market was gone, and New Zealand required answers to solve deepening problems.

Kelsey (1997) describes the first steps taken by the fourth Labour government in order to alleviate the crisis. After winning a snap election in July 1984, the new Labour government implemented a number of strategies, including devaluing the currency immediately by 20%. The New Zealand dollar was quickly put onto a free float after this move. Financial markets

were deregulated, while in quick succession a series of anti-inflationary monetarist policies were brought in, encouraging higher than normal interest rates (Kelsey, 1997, p.2).

2.3 *Theories informing neoliberal governance.*

Jamie Peck (2004, p.401) has described the type of neoliberal reforms seen after the election of the fourth Labour government as a series of market-oriented reforms which were conditioned by the economic crises described above. However, these economic situations which supported market-oriented reforms did not in his view provide a licence for further reforms into non-economic areas of public policy. These neoliberal responses, however, did turn into a wide-scale series of reforms which, throughout the subsequent Labour and National governments, gained increasing dominance over public decision making. The theories which underpinned these reforms are therefore vitally important in understanding how neoliberal concepts came to dominate areas outside of economic governance such as environmental and education policy, which will be discussed later on in this chapter.

Boston (1991) describes four specific theories which legitimized the actions of these governments. The first of these is Public Choice Theory (PCT), which Boston describes as having had “an immense impact on political science, public policy, and public administration during the past two decades” (Boston, 1991, p.2). The simplest way of describing PCT is that it uses modern economic theory in order to assess the actions of voters, politicians and government as self-interested entities. It attempts to assess the problems of individual preference within politics, how to aggregate the problems of individuality within the collective, and how to predict people’s actions within the political system as self-interested entities.

The second influential theory, according to Boston (1991, p.4), was Agency Theory, which he describes as:

...the notion that social and political life can be understood as a series of ‘contracts’ (or agreed relationships) in which one party, referred to as the principal, enters into exchanges with another party, referred to as the agent. In accordance with such contracts, the agent undertakes to perform various tasks on behalf of the principal and in exchange the principal agrees to reward the agent in a mutually acceptable way (Boston, 1991, p.4).

Agency Theory is originally an economic theory which is closely related to PCT, as it also assumes that behaviour is governed by self-interest and that political institutions should be

organised in such a way as to recognize this. The theory focuses on the incentives required in order for an individual to perform a specific task. Agency Theory attempts to find out what the optimal amount of incentive required is in these situations, for example, if ‘too much’ is paid - i.e., more than the minimum required - the transaction is deemed overly costly to the principal.

Transaction Cost Economics (TCE) is the third theory which is critical to the neoliberal policy formations of the 1980s. TCE is described (Boston, Martin, Pallot, Walsh, 1996, p.22) as being similar to Agency Theory, except that it is more concerned with addressing “the best way of organising the production and exchange of goods and services”, rather than relationships between entities. The fourth theory Boston (1991, p.8) outlines is that of New Public Management (NPM), or, more simply put, ‘Managerialism’. The main tenets of NPM are that public services should emphasise and reward the skills of managers, rather than technically trained professionals, and should focus on separation of commercial from non-commercial sectors.

These four theories underpin the way that many government institutions adapted to view the provision of their services under broad economic theory. Citizens became described as consumers of government services, and interest groups began to be viewed as self-interested entities that have entered into a contract-like relationship with a provider. Furthermore, all services began to emphasise cost-cutting and efficiency in their service provision as the central tenet of good governance, where before the aims had been to provide social objectives such as full employment and social infrastructure (Kelsey, 1997). Managers were then stressed to maintain this level of efficiency. These developments, along with reforms that emphasise the role of the market, dominated the neoliberal reform periods of the 1980s and 1990s.

An area of special significance for this thesis is how these changes have impacted upon environmental and education policy. Recent developments in climate change policy reflect neoliberal shaping, which can be seen as an extension of previous developments in environmental policy. This is also the case for education reforms, which emphasised the role of the market-place in not only the design of the school system, but also of the curriculum which was taught.

2.4 *Environment policy reform.*

Prevailing approaches to environmental policy will have a significant impact on how central government views, plans and attacks problems such as climate change. Contemporarily, neoliberalism can be seen to have shaped certain elements of environmental policy construction, and these elements will play a role in how the New Zealand government responds to environmental crises. I evaluate what aspects of environmental reform have been shaped by neoliberalism, and what impact these reforms will have on the methods used for addressing climate change.

Neoliberal environmental policy formation in its most extreme form can be summed up in the ideas of free-market environmentalism. Free-market environmentalists argue that policy should focus on increasing market based policies, and through this we can increase the effectiveness of our climate change mitigation efforts. Free-market environmentalism states that:

Properly designed and implemented, market-based instruments – regulations that encourage appropriate environmental behaviour through price signals rather than through explicit instructions – provide incentives for businesses and individuals to act in ways that further not only their own financial goals but also environmental aims such as reducing waste, cleaning up the air, or reducing water pollution (Stavins and Whitehead, 2005, p.229).

Free-market environmentalism argues that the cost of pollution must be accounted for in modern environmental decision making, and any system in their view which falls short of a total free-market will create inaccurate distortions on the cost of pollution (Anderson and Leal, 1991). Many scholars (Funk, 1992; Blumm, 1992; Menell, 1992), however, have attacked free market environmentalists claiming that their prescriptions are “... oversimplistic, misleading, and hyperbolic” (Blumm, 1992, p.372). These scholars do not deny that free-market approaches may have some role in finding effective solutions to environmental problems, but they argue that the utopian solutions of the free-market claimed by commentators such as Anderson and Leal are unreasonable. As Funk (1992) argues:

...today the task is not to decry traditional regulation generally, but to identify which environmental problems can be best tackled by market system approaches and to develop the particular market systems appropriate for those problems (Funk, 1992, p.512).

The arguments against free-market environmentalism generally take on two forms. Firstly, free-market initiatives often ignore the uneven distribution of resources and money.

Anderson and Leal (1991, pp. 70-71) for instance argue that environmental groups can band together in order to buy land to preserve it. However, this quite clearly ignores the capabilities of certain groups in society to afford to preserve the environment, and in many cases more capital could be gained from exploiting the environment as opposed to preserving it. Secondly, free-market environmentalists ignore the fact that the destruction of ecosystems is often seen as a moral problem, as opposed to a simply utilitarian calculation (Funk, 1992, p.516). I believe that items which require deeper inspection of worth than simple monetary value cannot be either placed in a market, or accurately priced on one.

What I now go on to investigate is how New Zealand environmental policy has been shaped by neoliberalism. Has it been shaped towards the free-market initiatives of the likes seen above or has it been adopted and moulded within what Funk (1992) calls more ‘traditional regulation’?

Recent developments in environmental policy began to take shape after the drafting and passing of the Environment Act of 1986, which created the Ministry for the Environment and the Parliamentary Commissioner for the Environment (Palmer, 1990, p.13). This ushered in a period of change between 1987 and 1990 under which Geoffrey Palmer was the sitting Minister for the Environment. During the period he and other helped created the Department of Conservation under the Conservation Act of 1987.

Previous to these policy developments, environmentalists had argued that ecological issues were often mismanaged under central government control. This claim is epitomised by John Salmon (Salmon, 1960) in his statement that the New Zealand government had been engaged in ‘state sponsored vandalism’ of the natural environment. These sentiments created an urge among environmentalists for policy reform which restrained government control.

Following these developments in structure was the next major reform, the passing of the Resource Management Act (RMA) in 1991. Memon (1993, p.94) describes the Act as creating “rational and streamlined procedures for decision-making [in regards to] environmental planning and provides an integrated focus on natural resources (land, air, water, geothermal and mineral)”. The Act places an emphasis on sustainable management, and defines “the needs of future generations; the need to safeguard the life-supporting capacity of the ecosystems; and the mitigation of detrimental environmental impacts” (Memon, 1993, p.98) as limitations on the use of resources.

Although all the policy reforms listed above had a major influence on how environmental issues in New Zealand have been dealt with since their inception, it is the RMA which is “the centrepiece of New Zealand’s environmental legislation” (Parliamentary Commissioner for the Environment, 2003, p.22). Barnett and Pauling (2005) specifically argue that the RMA reflects neoliberal ideology by stating:

[The Resource Management Act’s] neo-liberal orientation is reflected in its focus on the *effects* of actions, its devolution of the structure of management, its strong recognition of the rights of property owners, an increased emphasis on community participation, and the transfer of responsibility for impact assessments on to developers (Barnett and Pauling, 2005, p.282).

These developments link closely to the theories informing neoliberal governance which were mentioned earlier. The devolution of management to the community level, as well as the strong emphasis on ownership principle, is a simple extension of NPM ‘managerialism’ (Buhrs, 2003, p.92; Memon, 1993). As well as this, authors such as McDermott (2000, p.55) argue that the RMA’s pursuit of fiscal responsibility and shift of administration costs and responsibility to the developers can be seen as an extension of broader neoliberal shifts such as TCE seen earlier.

The development of the RMA is, however, not the only neoliberal shift in environmental planning which occurred. Rather, neoliberalism has had an impact on the large swathes of environmental planning. For example, Buhrs (2003, p.84) argues that contemporary environmental policy development “finds its roots in the diffusion of neo-liberal ideology, [and] that an important effect of these innovations has been the de-politicisation of environmental policy”. Memon (1993, p.120) argues that “the environmental reforms have been dominated by a libertarian doctrine based on a belief in the ability of market forces and of the public sector bureaucracy to accommodate environmental demands”. Pool (1997, p.10) believes that deregulation and movement to the market may possibly reduce the power to implement strategies to eliminate negative environmental effects.

Important environmental legislation such as the RMA will have a vast impact on how New Zealand will deal with issues of climate change. The notion of ‘sustainable management,’ which exists in the RMA, indicates that environmental policy-makers understood the requirement to maintain a base level of ecological health for future generations. It also indicates that although neoliberal orientations existed in the document, the act had a mixed

heritage which was born from the tensions between sustainable development and neoliberalism. The RMA's notion of sustainable management will be tested by climate change, and policy in regards to this crisis will have to reflect this notion of equity to future generations.

2.5 *Climate change policy in New Zealand.*

Neoliberalism has been a shaping factor in the environmental reforms which have taken place over the last 20 years. Recently neoliberalism can be seen as a shaping factor in government action towards climate change, the newest and largest environmental issue that ruling governments have had to face since the creation of this new legislation. This shaping is illustrated in the government's propensity towards voluntary, largely market-based policy, in which emissions trading markets are seen as the prime tool towards bringing about effective sustainable development.

Climate change policy in New Zealand adequately reflects the importance of international mitigation policies as well as local schemes. The first international agreement in regards to climate change that the New Zealand government signed was the UNFCCC, which was adopted in 1992. As we have seen described earlier, the UNFCCC was further enhanced with the creation of the Kyoto Protocol. The New Zealand government ratified the Kyoto Protocol in 2002, which as a developed nation requires their emissions to be lowered to 1990 levels during the first commitment period of 2008 and 2012.

This commitment is achieved by creating an international emissions trading system in which emissions credits are bought and sold through markets. Governments will hold an emissions unit in regards to each tonne of greenhouse gases that the country emits, however, each country starts with a limited allocation of units which correlates to their targets under the Kyoto protocol. If a country emits less than what is required under the protocol it can sell its excess credits for money; if it fails to meet its requirements it can purchase extra credits to meet its target.

The concept of mitigating against climate change by pricing carbon, and creating markets to buy and sell this good, has recently become increasingly popular in New Zealand and abroad. As current Minister of Finance Dr Michael Cullen illustrates in this statement (Ministry for the Environment, 2007, p.12):

New Zealand needs to do its part in the global effort on climate change. It seems inevitable that the world is moving towards a global price for carbon. The government recognises that different sectors have different abilities to reduce emissions and we are tailoring policies accordingly (MfE, 2007, p.12).

Control of emissions appears therefore to be governed by the government's ability to price this pollution as a negative externality. As greenhouse gas emissions are undesirable, the government requires that it becomes costly to emit. Therefore, through increased costs, it is hoped emissions will be reduced.

Markets have not necessarily been seen in New Zealand as the most attractive option in order to price emissions. The current Labour government had planned on implementing a carbon-tax; however, this policy was soon dropped amid protests from various sectors such as the farming community (Federated Farmers, 2005). In 2005 (Ministry for the Environment, 2005, p.6) the tax was described as being a:

...revenue-neutral carbon tax [which] will be applied to fossil fuels that emit CO₂ – including coals, gas, diesel, petrol and heavy fuel oil – and to CO₂ emissions from industrial processes such as cement manufacture. The carbon tax will initially be set at NZ \$15 per tonne, and will only be adjusted if the price of emissions units on the international market varies substantially from this (MfE, 2005, p.6).

The failure of the government to implement this tax has placed increased pressure on the creation of an effective emissions trading system. In a document published by the Ministry for the Environment, outlining climate change solutions for New Zealand, it is argued that an emissions trading system will become “the building block for the transformation of our economy” (Ministry for the Environment, 2007, p.15); an economy which will attempt to foster more sustainable production and consumption of goods.

Currently the government's plan for an emissions trading system is to implement a cap-and-trade scheme, similar to that which is outlined in the Kyoto Protocol. Individuals themselves will not be required to enter into the scheme, as the cost of running such a system, which assesses the emissions output of individuals, would be too large to undertake. Currently the plan is to impose the scheme on a small number of firms within certain sectors, and that individuals will experience emissions trading on the basis that certain goods and services will increase in cost (Ministry for the Environment, 2007b).

Recent policy documents reiterate that emissions trading is just one of the schemes for mitigating against increasing pollution, claiming that strategies such as increasing the amount of carbon sinks as well as voluntary and directive regulatory measures will also be used (MfE, 2006). However, since the failure to implement a carbon tax, the emissions trading scheme has become the predominant piece of legislature suggested to mitigate climate change by the Labour government. This reflects neoliberalism in its confidence of the ability of a market to accurately price the negative externality, in this case greenhouse gases. By choosing to accept an emissions trading system, the government explicitly shows its confidence in the market to price, sell and exchange this good, which it hopes will help the nation reach its goals under the Kyoto Protocol.

Although the emissions trading scheme only applies to certain emissions-intensive sectors of the economy, recent government documents have reiterated the voluntary measures the public can take for lessening their own emissions. As the Ministry for the Environment (2007, p.10) 'Climate Change Solutions' document outlines:

All New Zealanders can play a part in responding to climate change. Many of us have already changed to energy-efficient light bulbs or improved the insulation in our homes. Some of our children are walking to school in "walking school buses". More commuters are travelling on public transport. Many of our farmers are already managing their farms at, or near, world's best environmental practice (MfE, 2007, p.10).

The government encourages such behaviour through schemes such as the *EnergyWise Homes* package (www.energywise.org.nz), which provides information on how to create a more energy-efficient home. Also implemented is the *FuelSaver* website (www.fuelsaver.govt.nz), which offers tips and techniques for eliminating excess fuel consumption. Another approach which was employed is the *4 million careful owners* strategy (www.4million.org.nz), which offers all-round tips in regards to how ordinary citizens can make a difference to helping eliminate harmful pollutants.

Examples of tips given to help eliminate excess emissions from our daily activities include insulating your hot water cylinder, replacing light bulbs with energy-efficient fluorescents and starting a composting scheme to break down organic waste products (Ministry for the Environment, 2004, pp.1-2). All of these schemes are designed to educate citizens on how our daily actions can often lead to unforeseen environmental ills, and the roles ordinary citizens can play in reducing New Zealand's emissions output.

By making emissions trading systems the centre-piece of its mitigation techniques to combat climate change, the current Labour government is expressing confidence in the ability of the marketplace to be the driver behind cutting greenhouse gas emissions. The same government has attempted to implement schemes by which to teach individuals how they can, through daily actions, eliminate their own greenhouse gas emissions. Both of these responses can be expected to generate a neoliberal worldview in that the authority of the market, and the creation of the self-help citizen, are emphasised equally or above the role of government intervention. Expansion on the idea of this self-help citizen will occur in the next chapter.

2.6 *Education Policy.*

Much like environmental policy, education policy has also been heavily influenced by neoliberal reforms. These reforms did not just affect the way in which schools are run, but it also influenced the curriculum from which children are taught. Although education is but one of the factors that can contribute to the formation of one's world-view, it is important for this thesis as it can provide an understanding of how this worldview could express certain neoliberal notions.

As was argued in the first chapter, neoliberalism has seen a development in which markets, or 'market-like rule', have been extended into areas not previously thought of as being economic realms. Burchell (1996) is one who argues that this transformation has occurred within education, and that "individual schools and other educational establishments are increasingly required to operate according to a kind of competitive 'market' logic within an invented system of institutional forms and practices" (Burchell, 1996, p.27).

Although Burchell is referring to education systems in England, New Zealand has undergone similar educational change during the neoliberal reform period. The impetus for change was created by the release on May 10, 1988, of the *Picot Report*, which proposed widespread restructuring of the education system. These concepts were endorsed by the New Zealand government in the document *Tomorrow's Schools*. These changes focused on increasing parental choice in education, decentralizing governance of schools and forcing a greater emphasis on economic accountability. Schools were to be created as self-managing entities which would compete with each other for students and funding. Those schools which failed to gain private funding or student numbers, it was suggested, would have to improve their delivery of education in order to attract investment. It was theorized that this market system

would increase the quality of education by forcing schools to improve quality in order to maintain their survival (Gorard; Taylor and Fitz, 2003, p.23).

Commentators such as Codd (2005) and Peters (1995) argue that these changes reflect the neoliberal trends that influenced New Zealand policy development throughout the 1980s and 1990s. Codd argues that, “in retrospect, the educational reforms of the past decade can be seen clearly as serving the political and economic interests of neoliberalism” (Codd, 2005, p.16), whilst Peters states that “these theories take as their central assumption the notion that all human behaviour can be explained to self-interest” (Peters, 1995, p.54). Peters argues that these changes reflect certain neoliberal theories of governance we saw earlier in this chapter, such as managerialism. He argues that the Picot Report model, which stresses “simple administrative structure”; “clear responsibilities and goal”; “decision makers having control over resources” and a “system which is open to scrutiny”, reflects NPM theories.

However, it was not just the way in which New Zealand’s education system was run which changed under the neoliberal reform period, it also directly impacted upon the curriculum that children are taught in schools. In the Ministry of Education document *Investing in People: Our Greatest Asset*, the Minister of Education at the time, Lockwood Smith, “questioned the relevance of our current curriculum with its excessive focus on social issues and poor preparation for the competitive world” (Minster of Education, 1991, p.1). The report then goes on to state that education is at the heart of gaining maximum economic performance, and that the “future New Zealand education system” will be “...responsive to the changing marketplace...”, “able to produce the generic and specific skills required by the workforce of the future...”, and “tuned to the economic restraint within which all government activities must operate” (Minister of Education, 1991, p.7).

Neoliberal reforms have therefore both created an education ‘market’ through *Tomorrow’s Schools* and also attempted to import the priorities of the market economy into the curriculum and the school environment, where students are expected to be groomed for the ‘competitive world’. Education in this sense is not seen as a good in itself, but simply as a resource (capital), either for the individual in helping them gain a job in the market, or for the government in creating a more efficient and effective workforce.

This change of focus towards educating children into specific roles in the marketplace represents what Mutch (2001) describes as the contesting forces which were attempting to

dominate curriculum reforms. She argues that New Right values, of the like seen in *Investing in our People*, have effectively entered into the curricula; however, these changes were openly contested by competing liberal-left values. As she states (2001, p.75):

New Zealand's curricular reforms in the 1980s and 1990s provide an interesting case study of the impact of political and economic forces on curriculum development. Curriculum is also viewed as a contested notion and this period provides clear illustration of competing forces vying for control of curricula (Mutch, 2001, p.75).

A curriculum, Mutch argues, should never be viewed as existing outside of the context from which it occurs, as this context often illustrates clear and direct ideological influence. These ideological influences could be cultural, social, political or economic in nature, but, with all curricula development, a specific context will always exist. In the recent curricula developments we have noted, neoliberalism was becoming a prevailing political ideology and the impact of this has had clear repercussions upon documents such as the Picot Report and the New Zealand Curriculum Framework.

This curriculum battle can be seen in the recent British ruling that the showing of Al Gore's film *An Inconvenient Truth* in schools represents political propaganda (NZCPR, 2007). Justice Sir Michael Burton, who delivered the ruling, stated that the film represents "partisan political views" and that if schools were to show the film they would need to issue a warning to students and parents beforehand. This illustrates not only the contested nature of ideological influences in schooling, but also that these ideological differences exist in relation to environmental education.

The development of environmental or sustainability education can be seen to represent the contested notions of what is important to be included in the classrooms of our youngest citizens. Since 1997, the Parliamentary Commissioner for the Environment (PCE) has raised concerns about the adequacy of New Zealand's environmental education, and highlighted the need for education for sustainability (PCE, 2007, p.12). As PCE stated in 2004 (PCE, 2007, p.40):

Existing education systems can therefore present a dilemma for sustainability. They often support social practices and ideologies that are dominant in society. In a society that is operating in an unsustainable manner, unsustainable systems and ways of living can simply be 'transmitted' from one generation to the next (PCE, 2007, p.40).

The PCE reviewed two key documents which they argue have outlined the government's priorities for education and notions of environmental sustainability; the sustainability programme of action (MfE, 2003) and the education priorities for New Zealand (2003) documents. The sustainability programme of action document argues that sustainability should "be at the core of all government policy", however, it does not state any role which education providers could play to meet these lofty goals. Throughout the education priorities for New Zealand document barely any mention of environmental education is made. In this document the education priorities illustrate the importance of economic, cultural and social development rather than any environmental or sustainability goals (as quoted in PCE, 2007, p.53).

There are, however, movements within New Zealand education which emphasise a role for environmental education. The enviro-schools (www.enviroschools.org.nz) movement which asks that schools create a framework for integrating environmental concerns into all facets of its work is a recent example of this. The enviro-schools programme, along with all environmental education in New Zealand, still remains voluntary rather than compulsory, which means only a small percentage of New Zealand schools are members.

The developments in school governance towards creating a more decentralized and consumer controlled system reflect the notions of TCE and NPM, which were discussed earlier in this chapter. However, it is the curriculum developments which emphasise the role of education as a provider of skills for the workplace, which is much more likely to generate a neoliberal worldview among children. By creating a curriculum that reflects the political imperatives of the time, we can only expect that this would be to some degree repeated in the thoughts and beliefs of the children being taught. However, as Mutch (2001) points out, these imperatives are contested, and as is evident through the enviro-schools movement, there exists a multitude of different theories and ideas as to how to teach New Zealand children.

2.7 *Summary.*

Neoliberalism and its theories of governance have become prevalent at the macro level in the creation of new policy ever since the election of the fourth Labour government. These changes were most prominent throughout the 1980s and 1990s in which most of the education and environmental reforms discussed were passed. However, these theories are

still evident in the creation of climate change policy, which is a distinctly modern phenomenon. As we viewed in the first chapter techniques which rest on the autonomy of the market and emphasise the role of the individual in personal/political decision making may not be the most effective way of combating climate change. Yet they appear to be among the most popular methods of mitigation which are being put forth by the current Labour government.

The next chapter will review the micro impacts of neoliberal reform in New Zealand. It will examine how the movement towards an emphasis on individual rights and the freedom of the market can affect the behaviour of citizens, and what impact these changes may have.

Chapter III – Literature Review – Neoliberalism and its influences on *micro* level individual behaviour.

3.1 Introduction.

The previous chapter reviewed the relevant literature behind the neoliberal shaping of macro-level institutions and policy in New Zealand since the 1980s. The significant changes in policy throughout a variety of different sectors illustrate how neoliberalism became the prevailing political ideology behind several different reform schemes. What this next chapter will illustrate is how the implementation of neoliberal reforms can affect an individual's political behaviour.

What this chapter is examining, therefore, are the ways in which neoliberalism might be able to influence political decision making at the individual level, and how this can be related to the behaviour of our youngest citizens. The opinions, decisions and actions of modern citizens will obviously have a large part to play in the formulation of effective mitigation and adaptation strategies to global climate change. I ask, then, how do these worldviews get formed, and to what degree are they affected by the political project of neoliberalism?

I will begin by looking at Antonio Gramsci's concept of hegemony, and debate whether neoliberalism has become hegemonic in New Zealand society. I then expand on these ideas by examining Foucauldian notions of governmentality, which as a theory examines how when a project such as neoliberalism becomes hegemonic, what impact this will have on the actions, beliefs and thoughts of the modern populous. I will then consider the implications of these arguments in relation to both how children perceive climate change, and to what they think are appropriate and inappropriate actions.

3.2 Hegemony.

Gramscian notions of hegemony help explain how a political ethos such as neoliberalism can gain power in a non-direct way. Antonio Gramsci, the 20th century Marxist Italian philosopher, is often noted for expanding Marxist cultural analysis and thereby helping to explain why, at the time, capitalism was becoming more entrenched in Western Europe. He

does this through the notion of hegemony, which helps to explain how systems such as capitalism can endure, when this endurance is not in the “objective” interests of a majority of the population.

Contemporary theorists (Femia, 1981; Bocoock, 1986; Schwarzmantel, 2005; Entwistle, 1979; Sassoon 1980) argue that Gramsci’s concepts have only grown in relevance since his death in 1937. Femia (1981) argues Gramsci’s concept of hegemony:

...embodied a hypothesis that within a stable social order, there must be a substratum or agreement so powerful that it can counteract the division and disruptive forces arising from conflicting interests (Femia, 1981, p.39).

The concept of hegemony moves Marxism away from simply viewing the economic mechanisms of society as the vehicles for change. Gramscian hegemony by contrast explains how the supremacy of a social group, class or concept can be gained through social control rather than simple ‘domination’. It also then locates the possibility of resistance and impetus for change in that same cultural realm, through the development of “counter-hegemony”.

Gramsci views the supremacy of a social group either as coming from domination or moral and philosophical leadership (Femia, 1981, p.24). The latter is considered hegemony, which can exhibit social control in two ways: firstly, it can influence people’s individual behaviours and choices externally by creating incentives and disincentives for certain types of behaviour. Secondly, it can influence individual behaviour internally “by moulding personal convictions into a replica of prevailing norms...” and by creating “one concept of reality [that] is dominant, informing with its spirit all modes of thought and behaviour” (Femia, 1981, p.24).

Gramsci, therefore, contrasts regimes based on direct domination to those where control is derived from incentives and forms of *consent*, that is, through hegemony. In this view, therefore, domination is carried out by the state through its armed forces and police, while hegemony importantly involves civil society as well as the economic sphere. The economic sphere is the term used to indicate whichever mode of production is prevalent in society. The state consists of the armed forces and police who can enforce domination but also includes state-funded institutions such as education services and the legal system. Civil society is defined as being everything which is left; the institutions which are neither a part of the economic modes of production, nor are supported or funded by the government¹. Groups

¹ These definitions of the economic sphere, the state and civil society are openly contested.

such as religious organizations represent the most powerful actors in civil society, but civil society can also encapsulate other important political organizations such as trade unions.

Femia (1981) outlines below how hegemony is created in civil society:

Hegemony is attained through the myriad of ways in which the institutions of civil society operate to shape, directly or indirectly, the cognitive and affective structures whereby men perceive and evaluate problematic social reality (Femia, 1981, p.24).

Institutions, such as religious groups, the media, educational institutions, political movements and parties, represent culture-producing areas of civil society, which help to shape people's worldviews and implicit moral and political philosophies. The creation of a society in which a stable social order can exist within a multiplicity of interests must therefore, in Gramscian philosophy, require hegemony.

3.3 *Hegemony and neoliberalism.*

Gramsci had begun to develop his concept of hegemony after becoming disillusioned with the failure of Marxist revolution outside of Russia (Femia, 1981, p.31). His concept of willing consent of the proletariat in their own social control was influential in Marxist thought. Until Gramsci, Marxism, in the eyes of its proponents, required conflict not consensus, to bring about revolutionary change. Gramsci argued a political ethos gains power through this consensus – hegemony.

Gramsci's concepts of hegemony were often linked to liberalism, and contemporarily to neoliberalism (Schwarzmantel, 2005; Hill, 1998; Lauder 1993). Bocoock (1986) argues that:

Liberalism could be said to have been hegemonic in the past too, especially in the English-speaking world. It generated a world-view, a theory of political economy, which was philosophically and epistemologically grounded, together with ethics and political values it became popularized among millions of people (Bocoock, 1986, p.17).

Schwarzmantel (2005, p.86) extends Bocoock's ideas above to argue that "ideas of 'hegemony' are appropriate to describe the global domination of the ideology of neoliberalism". Schwarzmantel argues that notions of a 'post-ideological society' are inadequate in order to explain modern politics, and instead insists on viewing modern politics in regards to the existence of a neoliberal hegemony. He also goes on to state that if he is correct in his assertion that contemporary liberal-democracies are shaped by this

neoliberal hegemony, then there is a need for an opposition or counter-hegemony to these ideas.

Counter-hegemony can be described as being the sphere in which social groups, dominated by hegemony, create active resistance. As John Scott (2001, p.91) describes, “the hegemony of a ruling class, then, can be opposed by a ‘counter-hegemony’ constructed in subaltern social institutions and life experiences”, which can explain the activities of certain interest and protest groups. As Carroll (1992) notes:

...by mobilizing resources and acting outside established political structures of state, parties, and interest groups, movements create independent organizational bases for advancing alternatives (Carroll, 1992, p.10).

What are the implications of the concept of hegemony in our understanding of the attitudes of New Zealanders, and specifically young New Zealanders, to climate change? Firstly, neoliberalism has had a pervasive influence in macro political restructuring as discussed in chapter two. For example, in an address to the 1990 Australian Education Council Conference, the then Minister of Finance, Roger Douglas, stated it was important to:

...implement reform in quantum leaps. Moving step by step lets vested interests mobilize. Big packages neutralize them. Speed is essential... (quoted in Lauder, 1991, p.4.17)

Lauder’s article specifically reviewed the influence of neoliberalism in education reforms, and he argues that these reforms, along with others during the neoliberal period, were “attempts to engage in the most extraordinary enterprise of creating anew an entire culture – not just an economy” (Ibid). Hill (1998, p.71) interprets Lauder by arguing that the new-right proponents of the sweeping reforms, implemented by the likes of Roger Douglas, were attempting to contest the existing bureaucratic ‘big-government’ hegemony, and replace it with their own neoliberal doctrine. What Hill helps illustrate here is that the degree to which neoliberalism is hegemonic is debatable; however, it is clear that we can see the beginnings of neoliberalism as something which resembles a counter-hegemony being proposed by the leaders and rulers of New Zealand².

Neoliberalism in New Zealand, as was investigated in the second chapter, has led to sweeping changes in a variety of different sectors of society. These changes have been

² The example of Salmon (1960) in chapter two can help illustrate this point. The frustration with government mismanagement of the environment created a movement among environmentalists towards less government regulation. This same frustration can be illustrated across a variety of different sectors of New Zealand society.

profound and have directly shaped the ways in which many government institutions³ are organised. The degree to which neoliberalism has become hegemonic in New Zealand is impossible to assess, however, as Hill (1999) and Lauder (1991) argue, we can view the rise of neoliberalism in New Zealand in a similar way to which we could view the rise of any counter-hegemony.

A counter-hegemony of neoliberalism in New Zealand therefore requires, as seen earlier in the work of Femia (1981, p.24), the shaping of ‘the cognitive and affective structures whereby men perceive and evaluate problematic social reality.’ However, in order to argue further that neoliberalism reproduces itself and has entered into the beliefs of our youngest citizens, we must consider how these concepts are fashioned from structural changes to affect the way in which individuals evaluate this social reality. In answering this question, the work of Michel Foucault is often very helpful. For example, Barry Smart (1986, p.170) suggests that Foucault:

...has opened up the question of hegemony with analyses of the operation and effects of techniques of power and the associated rationales or regimes of truth through which forms of social cohesion are constituted... (Smart, 1986, p.170).

What Foucault can help examine is, at a more precise level, how certain political concepts can manoeuvre themselves into the behaviour and actions of the citizenry, including children⁴. This will obviously be of great importance for my argument that neoliberalism and its tenets may be traceable in the subject’s discussion of climate change.

3.4 *Michel Foucault’s concepts of discourse and power.*

Michel Foucault has been influential in helping to provide an understanding of concepts of power, control and discipline. As Foucault (1980) himself states:

...in a society such as ours, but basically in any society, there are manifold relations of power which permeate, characterise and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulations, circulations and functioning of a discourse (Foucault, 1980, p.93).

³ It must be noted that although neoliberalism has shaped the way in which government institutions organise themselves, in reality most of these institutional changes were imposed by government themselves (based foremost on Treasury advice).

⁴ Although Smart (1986) in particular did not consider the age of citizens in his discussion.

Foucault's concepts of discourse, truth and governmentality in particular are useful in helping understand how hegemonic ideas might influence the behaviour and attitudes of citizens, including our youngest citizens.

For Foucault, discourse was difficult to define, and at many stages of his life it had different definitions. For example, he often referred to 'discourse' as "the general domain of all statements, sometimes as individualizable group of statements, and sometimes as a regulated practice that accounts for a number of statements" (Foucault, 1972, p.80). At other times these 'individualizable groups' of statements can become groupings, for example, there could be a discourse on discrimination or a discourse on horse racing. What was of most interest to Foucault, however, were the rules and formulation of a discourse, rather than its precise linguistic reality.

What interests him further is how these rules and formulations occur, and how these rules and formulations are associated with relations of power. For Foucault, the link between power and knowledge is an important one which cannot be ignored. Lukes (2005, p.88) states that Foucault proposes "that there is a deep and intimate connection between power and knowledge", and that institutions such as the scientific community can gain influence in the ability to shape individuals' behaviour due to their claim of expert knowledge.

Discourse, therefore, refers to the rules and formulations "whereby those statements are formed and the processes whereby those statements are circulated and other statements are excluded" (Mills, 2003, p.62). Statements which are accepted in society gain a certain power, whereas those which are excluded lack that cultural acceptance. Certain statements, of course, will be accepted and rejected in different ways in different societies, but what Foucauldians believe links them all is the idea of discourse.

As previously stated, notions of discourse imply that knowledge and power cannot be easily separated. Ideas of knowledge cannot be constituted without an idea of the power relations behind them, and power relations cannot be examined without recognising the ethos and knowledge behind them. McHoul (1993, p.87) states that Foucauldian notions of power differ from traditional views which see "the 'sovereign' who wields power and the 'subject' upon whom the power acts exist[ing] in this relationship *prior* to the exercise of power; that power is the *result* rather than the productive *cause* of this relationship".

Foucauldian theorists, by contrast, argue that rather than concentrating on central or global forms of power, such as the state, we should focus on organizations which exist in society whose practices can be seen as exhibiting a certain power relation. These are described as ‘capillary’ points of power, and although these points can be less direct or visible than state power, they are in no way less powerful (McHoul, 1993, p.88). An example of such an institution could be the church, but this notion goes beyond institutions to encompass and re-emphasize the role of the individual in creating power, rather than simply being controlled by it.

Foucauldians also argue that power should not be seen as McHoul (1993, p.89) states:

...in terms of intentions, motives, aims, interest or obsessions: the ‘mind’ of someone exercising power. For Foucault, what is important is the *effects* of power’s exercise and not the myriad rationalisations offered to ‘explain’ why its actions take place (McHoul, 1993, p.89).

Foucauldian ideas of power and discourse are also helpful for this thesis as they have influenced the way in which environmental policy has been researched and understood. Possibly the most influential examination of his concept of discourse in an environmental context has been by Hajer (1995) in his book *The Politics of Environmental Discourse*.

Hajer has gained popularity for his work in describing the discursive nature of environmental policy decision making. In his view, discourses are the product of institutional development and individual actions which reflect certain knowledge or ‘truths’. In Hajer’s view, environmental politics and politics in general is the struggle for discursive hegemony, where participants battle to have their version of reality accepted as truth, achieving what Hajer calls “discursive closure” (Hajer, 1995, p.59).

Hajer also introduces the concept of “story-lines”, in which he believes that a common narrative, or ‘story-line’ exists through which people can reference to bring about a common understanding of certain issues (Hajer, 1995, p.62). Hajer uses the example of “rainforest” to describe a story-line, which is environmentally relevant, and contains within itself an entire discourse. In this thesis, I reflect the work of Hajer by looking for the ‘story-lines’ which are used by our childhood participants in their discussion of climate change, in other words, discursive concepts which sum up an entire way of thinking.

The argument that we can identify story lines of neoliberalism has been criticised, however, for simply assuming governmentality is a mechanism, rather than a contested and complex process. For example, Davis (2006) argues there are many regional variations in the way that neoliberal story lines have developed. Davis argues that understanding governmentality requires researchers to study individual countries and groups, stating for example that in some countries, "(o)ne of the ways that neoliberalism operates as an environmental project is through its use of environmental narratives, stories that are often derived from the colonial period" (Davis, 2006, p.89).

While noting the possible complexity of neoliberal themes, narratives or story lines, Davis goes on to also note that it is possible to identify some common or universal themes. She suggests that although:

The term neoliberalism,... means different things to different people and groups, and the definition of neoliberalism is, perhaps, itself problematic... neoliberalism is an ideological, and social, project, as well as an economic project (which)... fosters sectarian volunteerism in the face of the retreat of government, pathologizes the poor, and 'has served to reconfigure the relationship between the entire citizenry and the state' (Hyatt, 2001, p.203 as quoted in Davis, 2006, p.89).

My interest therefore is to see if any neoliberal themes, particularly market mechanisms or volunteerism for example are identified in young citizen's discussions.

3.5 *Governmentality.*

Foucauldian analyses of discourse and power can help us see how certain ideas can gain precedence in modern society. Another concept from Foucault, governmentality, links to these ideas of power, and how certain practices, activities and ethos's become the norm. For example, as Danaher et al. (2000, p.82) argues:

Foucault's contribution to theories of the art of governing has been to draw out the links between the levels of state and global politics, on the one hand, and the level of individuals and their conduct in every range of life, on the other. Taken together, this constitutes what he calls 'governmentality' (Danaher et al., 2000, p.82).

Foucault delivered lectures on what he viewed as the 'history of governmentality', which were designed to illustrate how the modern state and the "modern autonomous individual co-determine each other's emergence" (Lecke, 2001, p.191). These lectures described governmentality simply as the "art of government". But for Foucault, 'government' in this

sense is not limited to state politics; rather, Foucault seems to use ‘government’⁵ in the general sense of control. As John Scott (2001, p.93) states:

This term [government] refers not simply to the body of ministers of state and political means through which they work, but to a whole complex set of processes through which human behaviour is systematically controlled in ever wider areas of social life (Scott, 2001, p.93).

Danaher et al. (2000, p.89) point to two major developments which have been influential in the creation of governmentality. First is the movement of government into areas which were traditionally not deemed its responsibility; Danaher gives the example of ‘pastoral care’, taking care of the sick and poor, which in the past was the responsibility of institutions such as the church, charities and medical practitioners. Secondly, this move towards increased government responsibility appears to reflect the creation of a ‘rationality’ of government, which sought the prosperity and well-being of its citizens as the main priority of the state, rather than just one group in society seeking to place itself in a position of dominance.

Hunt and Wickham (1994) have described ‘governmentality’ as a concept which captures the “dramatic expansion in scope of government, featuring an increase in the number and size of the governmental calculation mechanisms” (Hunt and Wickham, 1994, p.76). Other authors, such as Lukes (2005), suggest that when governmentality and the concepts of power are used in analysis, we can understand how citizens are ‘produced’ as subjects. Lukes (2005, p.96) states that the “active citizen, the consumer, the enterprising subject, the psychiatric outpatient, and so on...” are examples of these produced subjects. Governmentality, therefore looks not only at how polities are governed, but also at how individual “subjects” are formed as to “govern themselves” in particular ways (Dean, 1999). Rose (1996) sums this up by arguing that:

Liberal strategies of government thus become dependent upon devices (schooling, the domesticated family, the lunatic asylum, the reformatory prison) that promise to create individuals who do not need to be governed by others, but will govern themselves, master themselves, care for themselves (Rose, 1996, p.45).

Notions of governmentality have also been used in the environmental policy context to help us understand how individuals may come to behaviour in particular ways with respect to the environment. Governmentality has influenced a school of thought known loosely as ‘eco-

⁵ Others argue that the linking of the words ‘govern’ and ‘mentality’ illustrates that for Foucault it is impossible to study the concepts of power without studying the political ethos behind them (Lecke, 2001, p.191). Therefore concepts like liberalism, for example, are seen by Foucault as being an *ethos* government rather than some doctrine or practice (Barry; Osborne and Rose, 1996, p.8)

governmentality', which is typified by the likes of Timothy Lukes (1999) and Eric Darier (1999). In their view, there is construct created by expert knowledge and government practices known as 'the environment'. The government management of 'the environment' is reliant on the creation and re-creation of this construct among the citizens of a nation.

What, however, do these arguments about power and governmentality mean for our understanding of micro level influences of neoliberalism? Lecke (2001, p.201) notes that we can see the move towards less direct techniques of controlling individual behaviour as definitive of the neoliberal project over the last 30 years. Theorists of governmentality therefore state that the actions of individuals in either the private or public sphere are created and disciplined by the prevailing discourse of their time, one of these of course being neoliberalism.

Burchell (1996, p.30) goes further and describes neoliberal government as defining individuals by striking "*at the very heart of themselves by making the rationality the condition of their active freedom.*" Foucauldian theorists therefore envisage neoliberalism as containing an important paradox: even though the political project attempts to strip the government of its power and increase individual liberties for its citizens, neoliberalism at the same time governs people's behaviour by requiring citizens to internalise and act upon a certain 'rationality'. The power of neoliberalism has in this sense, just as far-reaching micro implications for individuals as we saw it has had for macro level institutions.

3.6 *Conclusion.*

Through the Gramscian concepts of hegemony we can see how neoliberalism became a powerful ethos in New Zealand through challenging the prevailing bureaucratic 'big-government' notions that existed before it. Hegemony also helped outline how an ethos such as neoliberalism must gain the consent of society, and how the tenets and practices of neoliberalism must be accepted by a large proportion of the population, in order to gain an agreement so powerful that it can counteract the normal divisions which arise from conflicting interests.

Connecting hegemony to Foucauldian notions of governmentality, we can see how the political ethos of neoliberalism can impact on the normal activities of citizens by shaping the rationality of these daily activities. Techniques seen in the first chapter such as eco-

consumerism, and the self-help strategies to combat climate change seen in the second chapter, are examples of this move towards personal self-government. Lukes (1999) and Darier (1999) also help us see that environmental issues can be intertwined with this concept of self-government. This notion that subjects are produced to 'govern themselves' is a discourse, which through these government strategies, we can link to action against climate change. And as Nairn and Higgins (2007, p.266) state in relation to their own study:

Repetition of these discourses over more than two decades in New Zealand constitutes that such discourse as natural or normal and it is therefore not that surprising that many (although not all) of our participants incorporated the norms of the entrepreneurial subject in their discussions of their imagined and actual lives (Nairn and Higgins, 2007, p.266).

Although neoliberalism exists as only one of the discourses through which children will frame their beliefs and opinions on climate change, it happens to be a powerful and important one. If I am correct in my assertion that a discourse exists through which children are taught to 'govern themselves,' it would not be surprising if they replicated this in their beliefs and opinions in regards to climate change. The rest of this thesis is devoted to discovering if these neoliberal notions exist within the attitudes and beliefs of young children in regards to climate change. The next chapter, 'Research Methodology' assesses how I will go about this task.

Chapter IV – Research Methodology.

4.1 *Introduction.*

The last two chapters have discussed how neoliberalism could be seen to shape the macro level institutional context, and the micro-level worldview, of the contemporary New Zealand youth. In particular, at the end of chapter three, I examined literature which considers how this neoliberal discourse could influence the beliefs and thoughts of young children in regards to climate change. In this chapter I review the methods which have been used to understand the attitudes and behaviours of young children.

This chapter will also outline my justification for the methods of qualitative examination that I use. Firstly, I discuss my research questions. Following this, I present why I believe that studying children's political attitudes is an important field. Thirdly, I review previous studies which have been made in regards to attitudes, and specifically children's attitudes, towards climate change. Following this, I justify the use of qualitative methods as opposed to quantitative, and the advantages of this method. Lastly, I conclude by justifying a focus group approach to this study, and outline the perceived advantages and disadvantages of this method of inquiry.

4.2 *Research questions.*

The questions I use to guide my research design are as follows:

1. What is the interviewees view of climate change? Do they believe that it is happening?
2. What do the participants think are the causes of climate change?
 - a) What pollution do they think is the most serious in regards to climate change?
3. What effects does climate change have on the interviewees now/will it have on them in the future?
4. Who do the participants think is responsible for these causes of climate change?
5. What are some things they think can be done to help stop climate change?

6. Who do the interviewees think does the most in their community to help with climate change?
7. What do the interviewees think kids their age can do to help with climate change? Do they think they can do as much as adults?

The rest of this chapter will be spent justifying why children's attitudes to climate change are important, reviewing how previous studies into attitudes of climate change have been studied, and outlining how I plan to examine these specific questions.

4.3 *Is the study of children's attitudes towards climate change important?*

The opinions of children towards climate change can help illuminate how these scientific issues are being framed in the minds of our youngest citizens. As we have seen in chapter one, several theorists have argued that children can gain a political perspective from an early age. However, these results are often rebutted. For example, as Adelson and O'Neill (1966) argue:

During adolescence the youngster gropes, stumbles, and leaps towards political understanding. Prior to these years the child's sense of the political order is erratic and incomplete – a curious array of sentiments and dogmas, personalized ideas, randomly remembered names and party labels, half-understood platitudes. By the time adolescence has come to an end, the child's mind, much of the time, moves easily within and among the categories of political discourse (Adelson and O'Neill, 1966, p.295).

In other words, children may be able to express knowledge of certain well-known public facts, such as the names of the prime minister, the opposition leader and main political parties, but are unable to understand fully how their political system operates. Stradling (1977) remarks on this limitation when he claims:

...there is something essentially paradoxical about a democracy in which some eighty to ninety per cent of the future citizens (and the present citizenry) are insufficiently well-informed about local, national and international politics to know not only what is happening but also how they are affected by it and what they can do about it (Stradling, 1977, p.57).

But, as we can see, Stradling (1977) views the problem of low political knowledge as one which does not simply encapsulate children, but also contemporary adult populations in modern western democracies. Thus, one can argue that a lack of knowledge does not differentiate children from those who are considered to be legitimate subjects of political

research. In fact, in Stradling's case study young people appeared to be well informed about certain political institutions, especially in regards to those institutions they often come into contact with who provide them with public services (Furnham and Stacey, 1991, p.26).

A lack of extensive political knowledge is not a justification for not studying children's attitudes. A more pertinent argument we must face is that children of the age we are studying are not socially developed enough to be able to develop critical political thought. According to Connell (1971, pp. 231-232):

Up to about the age of 9, politics is not seen by children as a problematic sphere of life in which sets of choices must be made between possible alternatives. Most of their statements of preference are *ad hoc*, unqualified, probably highly unstable and not necessarily consistent with each other...This situation is transformed when the children begin to recognize political alternatives and notice opposing policy positions (Connell, 1971, pp.231-232).

That is, children may be able to regurgitate certain political facts, but these facts are not thought of in a 'political' way. Critical thought as to the benefits and costs of political actions is not developed in the mind of our youngest citizens in the ways which we would expect adults to think.

Connell argues that, to become a political individual, one must recognize him- or herself as a political actor with the potential to enact real change (Connell, 1971, pp. 231-232). An expression of simple preferences or beliefs does not create the ability to put these into practice. Once we have become political actors, it is theorized by Connell that we can clearly view the costs and benefits of certain political actions, and also have a greater insight into the various possibilities we can choose from when making political decisions. Efficacy and action therefore, in this view, create the political creature. Studying the political beliefs of an underdeveloped political actor is, therefore, in Connell's view, akin to analysing an empty computer.

Recent studies (Sheerin, 2007; ICR, 2006), however, show that efficacy and an interest, engagement or involvement in the political world are not necessarily codetermined. Sheerin's work illustrates how adults often lack political efficacy, yet maintain an interest and knowledge of politics akin to that of those who have what would traditionally be thought of as highly politically efficacious. It is too simplistic to argue that those who have low efficacy or do not engage themselves in traditional political activities are apolitical.

In this thesis I am reporting children's beliefs and attitudes towards climate change, and whether neoliberal thought can be seen to shape their 'story-lines' (Hajer, 1995) in these discussions. Sheerin (2007) helps us see how people can be politically aware without being politically active, and Stradling (1977) notes that often large swathes of the population are uninformed about basic political issues. However, as was explored in the previous chapter, it is not knowledge, or efficacy, which I argue is the driving force behind children's attitudes or opinions in regards to climate change. Rather, it is a fundamental worldview which underlies certain assumptions about what is thought possible, normal or natural in regards to their attitudes towards climate change. Using theories such as Gramscian hegemony and Foucauldian governmentality, I illustrated how the project of neoliberalism can have a great impact upon how one sees oneself in relation to the world, and the role that one feels themselves has to play in regards to effective climate change mitigation and adaptation.

Although the arguments of Adelson and O'Neill⁶ in regards to the development barriers which studies such as this may encounter are compelling, I believe that analysing children's attitudes towards climate change is still important. By assessing their current beliefs, attitudes and orientations, we can better explore the possible influence which created them and the limitations that these influences may have for effective mitigation and adaptation.

4.4 *Previous studies into attitudes towards climate change.*

There has been some significant studies undertaken in order to assess the attitudes, thoughts and beliefs of modern populations towards climate change, although surprisingly few studies specifically investigating the attitudes of children. Examples of some common approaches to attitudinal research range from studies which simply assess beliefs in the existence of climate change (Morin, 2005), to ones which look at the actions which should be taken to combat climate change (Bohm and Pfister, 2001; Kempton, Boster, Hartley, 1995), to surveys which attempt to measure the knowledge of modern citizens on the issue (EORG, 2002; Bord, O'Conner, Fisher, 2000).

These studies have come to a range of conclusions about attitudes towards climate change. For example, American studies have shown that although a majority of the populous views climate change as a serious problem, only one in five claimed they were personally concerned by the issue (Pew Research Centre, 2006). This is reiterated by Bord and his

⁶ This argument will be returned to in chapter six.

colleagues who noted in their studies of the American populous that “one striking finding... is the degree to which negative outcomes for others are judged as more likely than negative outcomes for the respondents” (Bord, O’Conner, Fisher, 2000, p.81).

In further studies stressing the relevance of the individual in the causes of climate change, two-thirds of respondents in Newcastle, Australia mentioned community contributions to pollution, such as large industry, increased traffic and power consumption. Half of these respondents also acknowledged their own personal responsibility for these causes of climate change (Bulkeley, 2000). Europeans in similar studies supported penalties and government taxation for those who caused environmental burdens, however, they were unprepared to support measures which required personal sacrifice or taxed the entire population (EORG, 2002).

Studies which asked for populations to provide solutions to climate change often emerged with vague responses. In German studies participants were unspecific on how to bring about changes, except that they supported actions to reduce ozone depletion without specifying how this could be done (Bohm and Pfister, 2001). In other surveys the results were similar with 45% of Seattle area participants arguing that halting the use of aerosol sprays was an effective way of mitigating climate change (Stamm, Clark, Eblacas, 2002). These researchers argue that these solutions occur because the public applies a traditional pollution model idea towards the problem of climate change, insinuating that the removal of unwanted substances from the emissions is itself able to combat the problem.

These studies offer a variety of approaches to attitudinal research which are asking similar questions to this study; however, the participants happen to all notably be adult. Studies which examine the attitudes of children have been conducted, albeit at far lesser frequency. For example there is the quantitative RM “School Gate Survey” (Yahoo! News UK, 2007) which questioned 1,500 11-14 year olds across Great Britain regarding green issues and climate change. One of the interesting findings of this survey was that 66% of respondents claimed that it was important to them that the company they work for in the future would be environmentally friendly.

Another quantitative survey was commissioned by DEFRA (2006), which asked a variety of questions such as if the participants believed climate change existed and was the result of man-made pollution and whether they had studied climate change at school and enjoyed it.

There have been qualitative surveys also such as the National Children's Bureau's (Read, 2007) report on how children viewed the London Plan⁷ and its impacts on climate change. This survey asked children to create a personal vision of London in the year 2020 by describing their own versions of 'London heaven' and 'London hell'.

Studies of children's attitudes in relation to neoliberalism have also been conducted. The previously mentioned Nairn and Higgins (2007) paper, *New Zealand's neoliberal generation: tracing discourse or economic (ir)rationality*, assesses the worldview of young New Zealanders in regards to the workplace market, and how these views could be influenced by neoliberalism. Nairn and Higgins used in-depth interviews along with a participatory 'anti-cv' to engage with their subjects. The 'anti-cv' was a project given to the subjects where they created an 'identity portfolio', which allowed them to express their identity outside of the narrow constructs of normal curriculum vitae.

These studies all offer an insight into the attitudes of the populous towards climate change, and in the case of Nairn and Higgins, the traceability of neoliberal attitudes among children. However, there has so far been no research which merges these two ideas in the same way which this thesis is aiming to achieve.

4.5 *Quantitative v Qualitative analysis.*

This thesis is designed to foster a greater understanding about the attitudes and beliefs of young children in regard to climate change. In light of the limited literature review presented here into research methods for studying children, I concluded that a qualitative approach would yield richer and more nuanced results than a quantitative survey and would be more effective given the questions I am asking. Further more, as will be argued later in this chapter, I believe that focus group inquiry will be the most effective way of qualitatively evaluating this.

Stewart et al. (2007, p.12) state that qualitative research requires, as opposed to quantitative research, an active participation or engagement in the lives and ideals of the participant. This, the authors note, gives qualitative research the honour of being considered a more 'humanistic' approach. What we therefore gain through qualitative analysis is a clearer understanding of the motives, actions and rationality behind opinions and decisions.

⁷ The London Plan is a development plan for the city of London which encapsulates in it concerns about the wellbeing of citizens as caused by increasing pollution and the impacts of climate change.

This I believe is the primary advantage of selecting a qualitative approach over that of a quantitative method. Researchers using qualitative methods can begin to assess people's perceptions and understandings, while at the same time avoiding the problems of oversimplification, misunderstanding or accommodation which can often occur through quantitative analysis. As Jones (1985) argues:

In order to understand other person's constructions of reality, we could do well to ask them...and to ask them in such a way that they can tell us in their own terms (rather than those imposed rigidly and a priori by ourselves) and in a depth which addresses the rich context that is the substance of their meanings (Jones, 1985, p.46).

Another key difference between quantitative and qualitative research is that qualitative research often has an open plan which can adapt and change to situations found in the field. As Flick (2006, p.51) argues, qualitative methods "are less canonized than in quantitative research". This allows us a certain amount of flexibility which will be required not only during most normal focus groups, but to a large extent also because the participants are children.

As Sheerin (2007) argues, qualitative research is also helpful when we have little understanding of the phenomenon, events or trends which we are attempting to study. And as was previously argued, although studies of youth attitudes towards climate change exist, as well as studies into the neoliberalisation of young New Zealanders, there is currently no research which merges the two.

4.6 *Focus Groups.*

Focus groups are an important technique in qualitative study. Krueger (1988, p.18) describes focus groups as being "a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non threatening environment". According to Litoselliti (2003, p.1):

Focus groups are small structured groups with selected participants, normally led by a moderator. They are set up in order to explore specific topics, and individuals' views and experiences, through group interaction. Focus groups are special groups in terms of purpose, size, composition and procedures (Litoselliti, 2003, p.1).

They are both *focused* and *interactive*, as Litoselliti (2003, p.2) argues, in that the discussion is focused on certain material and that the atmosphere is designed to create interaction

between the participants. Focus groups are therefore, as Krueger claims, 'carefully planned' but they are also malleable in that the participants play an active role in framing the discussion.

Focus group theorists (Stewart et al., 2007; Bloor, 2001) argue focus groups create a scenario in which one can gain a greater understanding as to how group dynamics affect individual behaviour and decision making processes. But what is most important is that this method can help us evaluate the meanings behind these group assessments, rather than simple positive or negative affirmations which will be gained from surveys or other quantitative methods.

Morgan and Krueger (1993, p.16) argue that focus groups help us to avoid the problem of oversimplifying certain human behaviours. They argue:

...by comparing the different points of view that participants exchange during the interactions in focus groups, researchers can examine motivation with a degree of complexity that is typically not available with other methods (Morgan and Krueger, 1993, p.16).

Focus groups generally consist of groups of around seven to ten people, but can grow to encompass up to twelve participants. The questions will be given to the participants by the moderator in a clear, logical sequence even if they appear to be spontaneous to the members of the group. Focus groups in general consist of people who are similar, or known to each other (Krueger, 1988, p.28), which allows for a greater sense of security in sharing information with one another.

This greater sense of security in sharing information, it is argued, is also very important when dealing with child participants. Punch (1999) argues that focus groups can help with dealing with the often unbalanced power-relations between child-participants and adult researchers by allowing them to interact within their own peer-group, as opposed to singularly in a depth interview.

This greater sense of equality between the child-participants and the adult researchers can also be encouraged in focus-groups by the manipulation of small factors, such as referring the participants by their first name and creating an informal and artificial atmosphere which is new and unfamiliar (Morgan et.al, 2002). Focus groups allow these factors to be manipulated, and therefore can create a good atmosphere for children, in particular, to participate.

4.7 *Problems with focus group surveying.*

By understanding some of the practical problems that can occur during focus group surveying it can help to eliminate their occurrences. Krueger (1988, p.46) outlines four limitations of focus group inquiry. The first limitation is that the moderator or researcher will have less control in group interviews as opposed to individual interviews. Secondly, the data which is gained from focus group interviews is difficult to analyze. Thirdly, the interviewer or moderator role requires a large degree of skill and tact. Finally, Krueger argues that groups can vary wildly, with some offering little to no insight on the matter being studied whilst others can form energetic and invigorating discussion.

These problems, it is argued by Krueger, are part of focus group inquiry and cannot be overcome; rather they have to be accepted as part of the process. There are, however, problems which are often faced by focus groups which through careful planning can be avoided. The first of these (Stewart et al; 2007, p.11) is that focus groups can often contain too many questions, which therefore eliminates time for in-depth discussions which can turn the focus groups into more of a group survey. In order to counter these problems, this research has focused only on a small number of questions which can be expanded on by the children.

The second problem that focus groups tend to encounter is that the participants are encountering topics which they are unfamiliar with. It is argued by Litoselliti (2003, p.20), that focus groups in which the members are ignorant of the subject matter “do not encourage different perspectives, and...may hinder free-flowing talk and interaction”. However, in such situations as seen earlier in the work of Punch (1999), the focus group scenario can foster often a more free-flowing discussion through making it more comfortable for children in particular.

The third problem that focus groups can face is the creation of bias and manipulation in the participants, which with our participants being children must be viewed with caution. As Litoselliti (2003, p.21) claims, there is a “danger of leading participants and encouraging them to respond to your own prejudices; participants saying what they think you want to hear”. Next I will propose a variety of different methods in order to counter the creation of bias and manipulation among participants.

4.8 *Focus group validity.*

Bishop and Glynn (1999, p.103) argue that we need to create a research method which emphasises connectedness, rather than attempting to create a neutrality through distance and separation. They have come to argue this through studies of New Zealand indigenous communities in which they noted that most research was conducted by ‘outsiders’ who failed to gain a total cultural understanding of the people they were studying. In order to counter this they argue for research in which we position ourselves ‘somatically’ within the community, conducting research as insiders, rather than outsiders.

This emphasis on the researcher’s positioning within the community they are studying has also been a focus in the work of Seyla Benhabib (2006), who argues that from the outside it is difficult to understand the complex inner workings of a culture. This culture can be as large as an ethnic group, or as small as a remote community, but positioning one outside of it as a researcher makes analysis far more difficult. To help with the validity of the focus groups in this thesis, the research will be placed in communities in which I have a great deal of knowledge.

Validity in a focus-group study is not made through ‘somatic’ placement. This is an approach which rather argues that we can reduce or avoid misunderstanding or causing harm in research due to transgressing cultural boundaries, especially when the research is placed in communities which I have grown up with.

Research validity requires different objectives, as Maxwell (2005, p.105) states “validity is a goal rather than a product; it is never something that can be proven or taken for granted”. External validity is where the results of focus groups, can be tested “against the world, giving the phenomena that we are trying to understand the chance to prove us wrong” (Maxwell, 2005, p.160). Clearly, in the case of a small sample, we are unlikely to achieve external validity, and in the case of this research, it is not the objective. The aim is to be able to generalise to a theory and not to a wider population. The cases are selected to cast light on the issues at hand, and not to mirror the demographic characteristics of the community.

Validity, therefore, does not consist of some sort of scientific ‘objective truth’ that we are attempting to discover, rather, the results require instead a certain type of transparency that

can allow them to be falsified by further study and inquiry. There are certain checks that can be made to ensure that focus groups results are as valid as possible.

The first validity check which we can take is to ensure that we identify and analyze unhelpful data in the qualitative research process (Maxwell, 2005, p.112). This data, along with the results which support the hypothesis, are as equally important and could create explanations which indicate important defects in the hypothesis.

Secondly, internal generalizability allows us to make general statements about the extent to which the results reported accurately reflect the views of the group studied. External generalizability is the step which is taken to apply these findings to the wider community, therefore being able to say that in general that New Zealand children talk about climate change with a neoliberal discourse.

External generalizability is unavailable to this survey, as we only studied a specific portion of the community. Rather the methodological approach of this thesis provides a transparent guideline from which further study can be done towards the issue of how young people view climate change, and that from further research we can gain view to the external generalizability of our results.

4.9 *Sampling.*

This thesis uses the sampling strategy known as theoretical sampling which is often used in qualitative research (Maxwell, 2005; Ritchie & Lewis, 2003). The cases are chosen to be able to reflect on the questions about theory which were identified in the literature reviews. Participants were firstly chosen on the basis of their school. Because it is assumed that macro institutions factors have had an effect upon individual behaviour, I have deliberately selected schools which have engaged in institutional review to encourage greater focus on environmental education.

Secondly, the participants were chosen on the basis of their interest in the study. From this it was presumed that their interest in climate change would bring about a more complex and considerate focus group discussion. As such, this theoretical sampling makes it impossible to give this study external generalizability.

I also selected schools where I was able to be embedded as a researcher within their community. In one case I had grown up in the area and lived within a short distance of the school my entire life. At this school I helped them conduct a radio show which was themed distinctly on climate change, as well as being an adult participant on a recycling themed field-trip. In the second case I also had familiarity with the area, although less so than at the first school. At this school I had participated as a researcher for previous studies and also helped them produce a climate change themed radio show. The final school was one in which I had family connections to, as my grandfather and his family had been pupils at the school. Here I was able to somatically locate myself by engaging with the students in helping them set-up a student run council.

4.10 *Ethics.*

When working with children the ethics of our research becomes a pertinent issue. Flick (2006, p.46) argues that a code of ethics which emphasises informed consent and avoids causing harm or invading the privacy of participants should be used in qualitative research. Allmark (2002, p.13) further proposed that three conditions are necessary for consent to be informed, these being that the participant is competent to give consent, the participant should be adequately informed and this consent must be given voluntarily.

In the case of children, it could be argued that they as participants are not competent to give their informed consent as it is viewed by Allmark and Flick. Therefore, in this study not only were the participants presented with an information sheet⁸ that outlined the purpose of the study and how the study would be conducted, but access to the children had to first be negotiated with the school principal and board chair and then finally the permission of the teachers and parents or caregivers were sought. All participants and caregivers were then asked to sign a written consent form which acknowledged that they understood the details of the study.

Also following University ethics⁹ guidelines to avoid harm or the invasion of privacy, this research will also promise the confidentiality of all participants. Children's names on transcripts will be changed, and no connection between which classes or schools the participants came from will be made on any of the transcripts. Children were asked to create pseudonyms for themselves and it is these names which are used throughout the thesis. As

⁸ See Appendices for copies of the information sheet and consent form

⁹ This study gained University ethics approval.

well as this, the school names have also been changed. Hard copies of the taped interviews and typed transcripts will also be destroyed after the completion of the research.

As well as these measures the participants were asked to read through the transcripts of the focus group interviews in order to cross-check whether they agree what it is stated they said is accurate. They were also asked if they would like to remove anything they had said throughout the interviews, or likewise to alter or change any of their statements.

4.11 *Chapter Summary.*

This chapter has argued that a qualitative method, specifically the focus group inquiry, has many positive benefits for this study. By using a more humanistic approach we can gain, as Stewart et al. (2007) argued, a clearer understanding of the motives and rationality behind the opinions of our participants. Through the questioning on perspectives into climate change by a qualitative approach we can gain a view to not only what our participant's opinions are, but also the prevailing worldviews which shape and form these opinions.

The next chapter presents the results of these focus group interviews.

Chapter V – Research Findings.

5.1 *Introduction.*

This chapter presents and appraises the findings of the focus group interviews which were conducted in late 2007. The results are drawn from five focus groups which were conducted at three different schools in the greater Christchurch area. The size of the groups ranged from a maximum of seven participants to a minimum of four, and featured children aged from 9 to 11 years old. I took the general questions from chapter four and operationalized them as explicit focus group prompts. These research prompts were:

1. What is the group's view of climate change? Do you believe that it is happening?
2. What do you think are the causes of climate change?
 - a) What pollution do you think is the most serious in regards to climate change?
3. What effects does climate change have on you now/will it have on you in the future?
4. Who is responsible for these causes of climate change?
5. What are some things that can be done to help stop climate change?
6. Who does the most in your community to help with climate change?
7. What can kids your age do to help with climate change? Can you do as much as adults?

This chapter first presents the distribution of our focus groups, with descriptions of their size, gender makeup and school decile. It then discusses the findings of the research, beginning with a discussion on the participant's beliefs on the existence and causes of climate change. This is followed by sections which assess the effects of climate change on the individual and how our participants view the issue of responsibility. Proposed solutions to climate change, community organizations and the role which children play in bringing about effective mitigation then round off the chapter.

5.2 *Profiles of contributing schools.*

The first school, which we shall refer to as 'River', represents the results of the 'River' focus group. My familiarity with this school came from previous research which was undertaken there, as well as the production of a climate change themed-radio show. This school, like all

the schools, has also actively participated in environmental education of its students. Previous knowledge of the school and community also exists due to it being in close proximity to where I myself grew up as a child. Table 1 below illustrates the focus group make-ups, as well as the decile rating of the school.

Table 1: *'River' school:*

Participants	Six
Gender cross-section of focus group	2 Girls 4 Boys
School decile rating	9

The second school, which we shall refer to as 'Tree' school, represents the results of 'Tree' focus groups one and two. At this school I had also worked previously as a researcher as well as creating a similar climate change themed radio show. At this school I had also attended a recycling themed field trip with the students. This school also participated in active environmental education (as was evident by the field-trip), and much like 'River' also has a familiarity with me due to being in a neighbourhood very-close to my own. Table 2 illustrates the make-up of both 'Tree' school focus groups.

Table 2: *'Tree' school:*

	'Tree' focus group 1	'Tree' focus group 2
Participants	7	4
Gender cross-section of focus group	3 Girls 4 Boys	3 Girls 1 Boy
School decile rating	10	10

The third and final school which participated in this research will be known as 'Rural' and represents the results of 'Rural' focus groups 1 and 2. At this school, like the others, I had worked previously as a researcher. At this school I had also helped extensively with the setting up of a student run school committee which allowed me to gain a somatic placement within the school structures. Unlike the other schools which were immediately familiar due to location, 'Rural' had been the school where my extended family including my grandfather had been taught. Like the other two schools, 'Rural' was also actively involved in environmental education of its students. Table 3 showcases the make-up of this school's two focus groups.

Table 3: *'Rural' school:*

	'Rural' focus group 1	'Rural' focus group 2
Participants	7	5
Gender cross-section of focus group	7 Girls 0 Boys	0 Girls 5 Boys
School decile rating	10	10

Overall, our participants are taken from very high decile schools. The study is split overall between 15 girls and 14 boys; however with both the 'Rural' focus groups only one gender was present.

5.3 *Views on the existence of Climate Change.*

All of the five focus groups were firstly asked whether they believed climate change existed. This question was designed to start the discussion in a broad manner in which the participants would be able to express their feelings on the issue at hand.

As table 4 illustrates, 22 of our participants (76%) stated that they believed climate change to exist. Two participants (8%) expressed sceptical views towards the existence of climate change and two further participants openly acknowledged that they did not know either way. None of our participants during the course of the focus group studies indicated that they did not believe in climate change.

Table 4: *Belief in the existence of climate change*

River ¹⁰	Tree 1	Tree 2	Rural 1	Rural 2
2 stated they believe climate change exists	7 stated they believe climate change exists	4 stated they believe climate change exists	4 stated they believe climate change exists	5 stated they believe climate change exists
0 sceptical of the existence of climate change	0 sceptical of the existence of climate change	0 sceptical of the existence of climate change	2 were sceptical of the existence of climate change	0 sceptical of the existence of climate change
1 undecided	0 undecided	0 undecided	1 undecided	0 undecided

This next passage below illustrates what was a typical response to this question:

¹⁰ If there is a discrepancy between the numbers which have stated their opinion and the raw numbers of focus group participants this will be due to either some members not expressing opinions, or being too shy in the focus group scenario to do so.

Abby¹¹: Well...I think it is happening and that it's going keep happening unless we do something about it. And some things are good about it, and some things are bad about it like for example Antarctica is melting and that it's killing of wildlife that's bad, but then sometimes it's nice to have hotter weather...because sometimes it gets quite cold.

Nick: Sammy?

Sammy: Yeah it's definitely happening and like Abby said its definitely going to keep happening unless we do something about it. And even then it's probably not going stop it just won't get as bad as it's getting...And yeah, we need to do something about it.

Nick: Ollie...

Ollie: Well...it is happening now but, us four; because we are young we don't really notice it because we have grown up. But as we get older we won't be used to it and we will notice it a lot more.

Nick: Kitty cat?

Kitty cat: Well it's definitely happening but most people don't really care because it won't come till about a hundred years later but they are not thinking about their grandchildren. Because they, they are just going to be burnt to death basically.

(Tree 2)

In contrast to this typical response during 'Rural' focus group 1, two of our participants expressed scepticism towards the existence of changing climate. This next passage illustrates the scepticism of the participants 'Rachel' and Karen':

Rachel: I sort of believe in it and don't believe in it. I know there is a hole in the ozone layer and I think it's melting...but my mum said that ten or something years ago they thought that the world was going to freeze over and now they think it is going to get warmer.

Nick: So you feel sort of unsure as to what to believe?

Jay: Well I think the ice is melting because recently I went to the movies and saw a movie called 'the light planet'. And it was about polar bears and stuff and it showed how the ice was melting in places like Antarctica and things...

Karen: How do we have any proof that there is an ozone thing?

Izzy: I think it's scientific...or something.

Karen: But how are you supposed to prove it? Like they've only said they have had an ozone hole, but they haven't, they have showed where it is but how do they show that it's there?

(Rural 1)

Although the majority of responses were positive affirmations of the participants' belief in climate change, throughout all the interviews it became clear that their beliefs were often muddled with other environmental issues. The issues which were consistently confused with climate change was the growth of the ozone hole over New Zealand, and its causes in the release of CFC gases.

5.3 *Causes of climate change.*

As presented in the previous section, a large majority of participants believed in the existence of climate change, with only a few expressing sentiments of scepticism. However, once the question was asked to describe the causes of climate change, it became clear that the children's knowledge was often either confused with other environmental issues or was not highly developed.

¹¹ The children chose their own pseudonyms which are used in this work.

Table 5: *Suggested causes of climate change.*

River	Tree 1	Tree 2	Rural 1	Rural 2
1 stated transport as a cause of climate change	2 stated transport as a cause of climate change	1 stated transport as a cause of climate change	1 stated transport as a cause of climate change	2 stated transport as a cause of climate change
		1 stated factories and industrial pollution as a cause of climate change	1 stated factories and industrial pollution as a cause of climate change	1 stated factories and industrial pollution as a cause of climate change
Other suggestions: Fumes emitted by general activity.	Other suggestions: greenhouse gases, aerosol cans, fires and rubbish dumps.	Other suggestions: Sprays and chemicals, CFC's.	Other suggestions: Dairy farming, general greenhouse gases.	Other suggestions: Burning rubbish, refrigerants, coal/fuel.

As table 5 indicates, the most popular response to what causes climate change was pollution that is emitted from transport, either being cars, motorbikes or ships. These were mentioned in every separate group, a total of six times. As the participant 'Rachel' noted:

Rachel: The cars are polluting our planet because some trucks and cars have smoke coming out of them.

(Rural 1)

Fires, or burning rubbish and the resulting release of fumes, was the next most popular choice. The third most popular choice was pollution which was emitted from large factories. This was noted in three different groups, and was one occasion in which the participants came up with examples which were not expressively individual. As 'Elisha' and 'Izzy' discussed:

Elisha: Well greenhouse gases from factories and stuff. And since the cost is going higher and such there will be more factories made because people are richer meaning we will die sooner.

Izzy: Well as other people have said there are the factories that are making more smoke. But then, the reason is because they are getting all this money for what they produce. And they are just making more and more because they want the money but most people who own factories think making money is the best thing in the world....

(Rural 1)

However, as I mentioned in the last chapter, this question was where the confusion between ozone depletion and climate change became more prominent. As Lewin noted:

Lewin: Yeah because its burning the Ozone layer which is the sun thing, which is melting Antarctica. So its yeah...also this causes problems in Fiji and places like that.
(Rural 2)

‘Abby’ continued along this theme by arguing that:

Abby: I think its right about the CFC’s from the aerosols is ruining the Ozone layer which is causing more disease like skin cancer and melanoma. And that’s killing people, and its killing them faster than it would have otherwise.
(Tree 2)

This confusion continued throughout the questioning process, with the issues of CFC’s, the ozone layer, the melting of Antarctic and Arctic Ice, the flooding of low-lying nations and the extinction of animals that rely on these delicate eco-systems to survive often re-emerging. This, I believe, is a relatively reasonable confusion as they are all referring to damage to the atmosphere which is caused by the release of man-made gases. However, it also suggests that although the participants were nearly all capable of responding with intelligence to the questions, their knowledge was far from complete on the subject at hand.

However, the participants were sometimes able to answer with accuracy what the causes of climate change were, but did not go into detail as to what processes came about to create these causes. This passage is a typical example of this:

Nick: Well what do you feel are the causes of these changes?
Evil Kanevil: Us!
Group: Humans. Pollution!
Nick: What sorts of pollution?
Evil Kanevil: Like ah gases and stuff.
Ginger Nut: CO2.
Kermit the Frog: Methane.
Disco Noodle: Greenhouse gases
(Tree 2)

5.5 *Effects of climate change on the individual and intergenerational justice.*

Although there was some confusion about the causes of climate change, most participants were able to articulate their beliefs with simple examples of modern pollution. When asked as to what sort of effects this change would have on the individual, the most popular response was to reiterate the effect on mortality, and the ability to live as we live now as the biggest impact that climate change would have on them in the future. This is summed up in this passage:

Nick: Well I guess the really big question is, obviously we have figured out that you guys think that global warming is happening and definitely well informed as to what is causing it but what effects do you think it has on you right now and what sort of effects do you think it will have on you guys in the future?

Santa: Might have to stop using cars.

Evil Kanevil: Kind of have to stop doing what we used to be doing stuff like...

Ginger Nut: It might get so bad that you're not allowed outside.

Santa: Not driving cars and stuff.

Evil Kanevil: And in the future everyone might die.

Kermit the Frog: And the Antarctic will be completely melted.

(Tree 2)

The frequency of responses which mentioned the effects of climate change as being ones which would affect ones ability to live, either by causing death or by causing problems which are so catastrophic that one cannot go on living in the same way, emerged in every focus group. Some were also able to articulate how effects to the climate may impact on more fundamental ways to our wellbeing, as is expressed in this passage:

Nick: And what sort of impacts do those things have? When the world gets hotter and the seas rise up what sort of impacts does that have on more important things to humans?

Sid: Food.

Nick: Food definitely.

Sid: Resources.

Nick: Definitely Sid.

Lewin: The fresh water will be running out.

Nick: Yep.

Sez: There will be a lot of wars over water...and food and stuff. And there wouldn't be much land.

(Rural 2)

It was during this question that the concept of different climatic conditions for different generations emerged. This was expressed in two separate ways during the interviews. Firstly was the concept that climatic change will create a world in which future generations will not be able to enjoy certain things that this generation and generations past have come to enjoy. This is described in this passage:

Nick: Well apart from the examples we have already given, can you think of anymore effects that climate change in particular will have on you guys now?

Abby: I think it will kind of make experiences...because I went skiing last holidays, last winter. And it was really frightening. Our grandchildren might not get the experience of real snow, because I find the snow really fun. And man-made snow just isn't the same...so the snow.

(Tree 2)

The second passage critiques the idea that climate change is an issue of the future, therefore does not have to be faced by living generations:

Sez: Some people just think well hopefully it's not going to happen when I'm still alive so I don't really care.

(Rural 2)

This illustrates not only the frustration that past generations were the cause of climate change, but also the apparent willingness of the contemporary older generations to ignore the problem. With the participants expressing often extreme visions of a future changed by the climate, this inaction links to a feeling of dissatisfaction about how adults now appear distant in trying to bring about a healthier climate.

5.6 *Responsibility and the issue of climate change.*

The end of the previous section illustrates how our participants view climate change as having a serious effect on themselves and future generations. These effects, although exaggerated by the children, indicate pessimism about the future which even permeated into a discussion about the generational inequality that they themselves face. This next section investigates questions of responsibility in regards to climate change.

When asked who they felt was responsible for climate change, all groups responded initially with a global, encompassing view of responsibility. This is summed up in the passage:

Nick: Yeah well that sort of brings me to my next point which is who do you think is responsible for climate change?

Sid: Us.

Group: Us.

Nick: By us do you mean everyone on the planet?

Sez: We can't just do it as just like twenty people or something. It has to be everyone.

(Rural 2)

Investigated further, there appeared to be a split between what the participants saw as those who were responsible for causing climate change, and those who are responsible for addressing it. This next passage illustrates, as we saw from the previous chapter, how intergenerational inequality becomes a thorny issue as the children rightly recognize the previous generation's actions as causing climate change, yet see themselves as equally responsible for addressing it.

Nick: Well I guess the most important question I have to ask you guys is really who do you feel is responsible for this climate change? So what do you think of the idea of responsibility and climate change.

Abby: I think everyone is responsible. Some say it's the young generation, but it has been going on for quite a while. People think it's just started and they are blaming our generation but really it has been going on for a while so it's from our grandparents down...If people try really hard we can stop it, well maybe not stop but slow it down.

Sammy: I agree with Abby about how it's everybody but really umm its also the people like our mums and dads and stuff and a little bit older than them. They have done it because they had all sorts of things which people would now stop and say 'hey that's not very good for the environment'. Its because nobody really knew that it was happening so they went around as if there were no consequences or anything but now the consequences are really happening.

Kitty cat: Also when the new sorts of products like the spray cans were invented they didn't know they would have an effect on the environment. They thought hey this is interesting lets make lots and lots of it. Then they just didn't care about the smoke going out, they just thought it was going to blow away somewhere else.

Nick: So do you feel that maybe you guys, are, definitely because those people in the past were not informed of the damage that they were causing that maybe you guys are responsible for being educated about these changes and making changes.

Sammy: Basically they have just made a big mess and we have to tidy it up.

Ollie: Going back to what Sammy said about all the generations not knowing about the consequences, when you get things like World War 1 and 2 they are like using heaps of petrol and oil for the tanks...

Nick: And coal...

Ollie: And that kind of thing. You just think oh my god Germany are attacking I got to kill them. Da da da.

Abby: With CFC's being invented it was instead of ammonia, or something I forget what is called, but that was really bad for the environment. They thought oh 'CFC's that's better' but it's actually doing bad stuff as well.

(Tree 2)

Responsibility is also further complicated when the participants express a belief that other countries and peoples may be more responsible for climate change than New Zealand citizens. The difficulty of dealing with a global issue therefore, by individualizing the responsibility, is expressed in this passage:

Hamfish: I blame the Chinese.

Group: *Laughs*

Nick: Is that just because they are polluting more than say we are?

Hamfish: Yeah. They pollute for almost 75% of the world.

M: So do America.

Nick: Yeah.

Hamfish: Yeah America does it as well.

M: They have the advanced technology.

Lewin: I reckon that um like the bigger countries like China...and the big businesses...

Sid: ...Countries that have more people in it. Have more...they pollute more because they need to use more...

Nick: Ok you've got New Zealand really small country umm but it might be polluting more than you're average Chinese person, but China is just so large that it naturally pollutes more.

M: Well I reckon it's everybody not just China and stuff...you can't just pin it on them.

Nick: So you can't just blame one country or one group of people?

M: Yeah...you probably could if you biked everywhere and didn't use electronics or anything.

(Rural 2)

As we see, 'M' struggles with the idea of blaming climate change on one singular group of people, but also struggles to burden responsibility on those who take individual action to lessen their carbon footprint.

5.7 *Proposed solutions to combat climate change.*

When asked to offer some solutions in regards to climate change issues, our participants overwhelmingly selected individual forms of action, as opposed to collective ones. As seen in table 6, over the five focus groups 24 separate responses which indicated individual action

as a solution to climate change, whereas only 7 could be considered to be remotely collective forms of action. This is illustrated in table 6.

Table 6: *Proposed solutions to climate change*

River	Tree 1	Tree 2	Rural 1	Rural 2
8 individual mitigation techniques to stop climate change.	9 individual mitigation techniques to stop climate change.	3 individual mitigation techniques to stop climate change.	4 individual mitigation techniques to stop climate change.	2 individual mitigation techniques to stop climate change.
3 collective mitigation techniques to stop climate change.	0 collective mitigation techniques to stop climate change.	1 collective mitigation techniques to stop climate change.	0 collective mitigation techniques to stop climate change.	3 collective mitigation techniques to stop climate change.

This next passage shows a collection of different individual actions which were suggested by one group, and these responses are typical of the other groups as well:

Nick: What are some things that you think can be done to help stop climate change?
Ginger Nut: People should take the bus more!
Santa: Electric cars
Nick: Electric cars?
Kermit the Frog: bulbs...and the energy efficient light bulbs.
Santa: And the reusable super-market bags.
Group: The green ones?
Santa: Yeah the green ones!
Kermit the Frog: Walk or bike instead of using the bus.
Evil Kanevil: Or skate!
(Tree 1)

The encouragement, creation and use of alternative and cleaner sources of power was overwhelmingly the most common collective action which was suggested by the participants. This occurred in two different groups:

Bobby: We need to use different energies.
Red: What about wind power?
Bobby: Wind power, solar power, hydro power...
(River)

The other group suggested firstly that we must find alternative sources of power, and then suggested that nuclear power could be a solution to climate problems.

Hamfish: Do you know that if we had one nuclear power plant that it could power the whole of New Zealand and we would be dumping electricity, so people could use more electricity...
Nick: So you think nuclear power as an alternative source of power is a good idea?
Hamfish: Yeah. And then sell...
Lewin: What about the waste?

Hamfish: Will just dig a big whole and put it in there...
(Rural 2)

Other ideas which would require collective or government action were mentioned, but they sometimes they were revealed in terms of the individual. For example, public transport is often mentioned as a solution for emitting less pollution; however the responsibility of using public transport is placed upon the individual.

Lewin: Start biking more...and maybe public transport like buses and trains. Instead of just using single cars...it's probably cheaper as well.
(Rural 2)

However, a further passage with this group shows that they were able to formulate a purely collective mitigation technique, that is, the creation of laws and legislation.

Hamfish: I reckon what they should do is make a law, a law that says if you don't recycle and do all this stuff here you will get jailtime and if you are really bad you might get the death penalty!
Group: *laughs*
Nick: You think it's a bit strange that the government, although that was a bit of an extreme example, do you think its strange that the government doesn't have more laws that stop against polluting?
Group: Yes...
Sid: They do so much, and nobody is listening to them so they should put some rules in.
Nick: Why do you think they haven't done that so far?
Sez: Because if I was in the government because even though drugs and stuff are illegal people still do them. And there is no point making rules if people aren't going to follow them.
Lewin: But if you do make the law less people will do it, even if there are some that still do.
(Rural 2)

In all the focus group discussions, this small passage was the only mentioning of government regulation as a specific way of dealing with the complicated issues of climate change.

5.8 *The community and climate change.*

The following question asked the participants who they believed did the most in their community in regards to climate change? The most popular response to this question was the institutions of their school; with three of the five groups giving examples of how their school was implementing plans to help with the lowering of waste and pollution. For example 'Kitty' mentions:

Kitty: In our school we have a compost heap, and a Bokashi bin...
(River)

However, what also emerged was that the children also recognized governmental and non-governmental organizations as playing a part in their community to help with climate

change. For example one group mentioned Environment Canterbury, a group which works within local government as an organization that helped with the battle against climate change.

Nick: So your mum and your teacher? Can you think of any other groups who help out?

Rachel: Enviro-can?

Nick: Environment Canterbury? E-Can.

Rachel: Yeah.

Nick: Have you had to deal with them through the farm and stuff like that?

Rachel: Yes.

Izzy: My mum is crazy about those people...

(Rural 1)

Another group mentioned Greenpeace as an organization in their community which help with climate change. However, some participants were sceptical as to how many organizations in their community actually help with climate change, insinuating that individuals rather than organizations were more important.

Abby: I think most of it is individual. That I know of there are not too many organisations that are trying very hard. I think in my house, I have done quite a bit since 'Waste of Day'¹² and I've learnt all these things that actually help like taking the lids of milk bottles, and squashing cans and stuff. Because we always used to just put them into the recycling bin.

Sammy: Yeah definitely I agree with Abby that there is no one particular organization that is doing anything to help. But umm everybody is just sort of doing their bit, and um that is really good because we just want to do their bit, and the more people that do their bit that means the less and less waste we have and everybody's actions count and that sort of thing.

Nick: Ollie?

Ollie: I think there are some organizations that are trying. Like the people that gave us that tour and told us all those things on 'Waste of A Day'....

Nick: Yeah yeah yeah that's a good point...

Ollie: It's not like they're trying to do it just for the money, they are trying to help.

(Tree 2)

As this passage shows, there is conflict as to whether organizations in the community are directly helping. 'Abby' and 'Sammy' both express critical viewpoints, whilst 'Ollie' points out the direct impact that some organizations have had on them. Considering all these children attended the fieldtrip, it is interesting to note that two of them had already forgotten about this direct community interaction with an environmental group, and instead suggested that the emphasis was rather placed on the individual.

Other than particular organizations, it was often family members, such as parents or community leaders like teachers which were mentioned by the participants as making a

¹² 'Waste of a day' fieldtrip was a trip organized by TerraNova (www.terranova.co.nz) in order to teach these children how recycling occurs, how to recycle properly and the values of recycling. As I attended this fieldtrip with the children I already had the knowledge that they had attended such an event. The interviews were taken several months after the fieldtrip.

difference. In fact, one of the participant's parents was so involved in environmental issues that one of the other children was aware of her actions in the community.

Cat: Izzy's mum is actually really committed because she met up...my friends they were cutting down their trees and she just went over and sat there.

Karen: They were my friends.

Izzy: There was an old railway station....

Nick: Did people used to live there?

Izzy: These trees were old. More than 160 years. And my mum didn't want them cut down, very cool trees.

(Rural 1)

5.9 *Children and how they can help with climate change.*

The final question asked the participants what they could do to help with climate change, and asked if they felt they could do as much as adults. This question was designed to assess the children's efficacy, which I felt was especially important after discussing questions which often illustrate the difficulties in making significant positive action. The results of this was if a group internalized the problem of climate change, they felt they could make a difference, whereas if the group had a clearer concept of the political difficulties of significant positive action they felt less efficacious. This lack of efficacy is summed up in the passage below:

Nick: I just remember talking about it ages ago. Well those are all very good answers, basically there is just one more question to ask which is what do you think that people your age can do to help with climate change and do you think we can do as much as adults for example?

Hamfish: I think we can do probably a very minimal amount...

Lewin: Probably because we are younger and can't get involved in politics like that to stop it...you have to be a certain age.

Nick: Yeah you have to be a certain age to be voted into parliament...so you think adults should do more by going to government and saying hey you should change the laws.

M: I don't really think we can do much either...we can't drive cars because we are underage, we can't get a job at some sort of environmental place or something like that. We can't vote.

(Rural 2)

This contrasts with the three groups who saw personal actions as the more pertinent to effect climate change action. This next passage is a typical example of what was said:

Nick: Well we have come up with a lot of good ideas for what we can do to help with climate change, like stuff like walking to school and recycling more and things like that but its close to being my last question, what do you feel like kids especially can do to help with climate change and do you think you can do as much as adults or, you can do the same things as adults....

Ollie: More...

Kitty cat: Sometimes...even though kids hate chores it's a good idea to do them because if your parents have forgotten to take the lid of a milk bottle you can just take it off if you see it in the recycling bin. 'Take out the recycling please', 'oh it looks like there is something here which is needs to be done'. And you can just do that as well...

Abby: Yeah I think it's more likely that kids' bike or scoot to school as opposed to adults do to work.

Nick: Yeah that's a good point...

Abby: Usually adults kind of work a bit further away and they leave a bit earlier or something. And lots of kids, the parents say you have to make your own way to school so it also gives them a bit of independence.

Ollie: Lots of people our days just go home from school or work and just blob in front of the TV. or the computer or something like that...Umm but they really could be doing something like...

Sammy: Like planting a tree!

(Tree 2)

Here is another passage which illustrates this point:

Nick: What can kids your age do to help with climate change? Do you guys feel like you can do as much as adults?

Ginger Nut: It is probably better for kids to do it so they can teach the next generation.

Group: Yeah.

Santa: The thing is like that we don't fall into the traps that the last generation was doing.

Nick: Which is what just to have this knowledge and to not do much?

Santa: Yeah...

(Tree 1)

The self-belief which I observed in the participants' confidence to be able to shape a more environmentally sustainable future through their own actions was compelling. The results show that not only are the actions suggested by children individualized but also that this belief has shaped their perceptions of the impact that this individual action can have. In their eyes individual action alone can help alleviate this environmental crisis.

5.10 *Chapter Summary.*

This chapter presented an overview of the focus group interviews which were conducted for this study. The main themes which emerged from the interviews were that the children placed a greater emphasis upon individual mitigation methods as opposed to collective methods and that those which appeared more efficacious towards their ability to mitigate against climate change preferred these individual techniques.

The next chapter presents in-depth discussion of the findings of this research. It will link how the trends viewed in this chapter may be a result of the neoliberalisation of New Zealand culture presented earlier in the thesis.

Chapter VI: Conclusion.

6.1 *Introduction.*

This thesis has examined the relationship between young children's emerging political attitudes towards climate change and the possible effect that the political project of neoliberalism could have on these attitudes. Five focus group interviews were conducted through three schools in the Christchurch and greater-Christchurch area in order to gain a greater understanding of these attitudes and beliefs. The most striking conclusions of these focus group interviews were the propensity of participants to select individual forms of mitigation to fight climate change, as opposed to collective forms of action. It was also discovered that our participants who expressed a desire to implement change through individual forms of mitigation had a higher sense of political efficacy than those who suggested more collective forms of mitigation.

In this concluding chapter I discuss these key findings in greater detail. Following this I review and discuss the limitations of the research whilst reflecting on the methodological approaches used. I then conclude by discussing the political and public policy implications of the findings of this research.

6.2 *Key findings: Individual responses to climate change.*

When the participants were asked how they could help with combating climate change, the responses given were overwhelmingly individualistic in nature. Recycling, the use of energy saving light-bulbs and cutting down on transport use by walking or cycling more are just some of the typical individual responses that were given. Other collective solutions such as public transport were mentioned, but the responsibility for using public transport was often placed on the individual, rather than for example suggesting that public transport services should be improved, or made easier to use.

When asked about organizations who helped in the community with climate change few groups could think of multiple examples. A case in point was the second 'Tree' focus group in which all the members had recently been on a recycling field-trip; however, two of the members of this group claimed to see no community involvement in combating climate

change. These two participants insisted that individuals, rather than community organizations, were important for effective climate change mitigation.

Not all responses were individualistic in nature. One group explicitly mentioned the creation of legislation as a form of action to create change within the community. However, throughout the five separate focus groups, the concept of legislation was only raised once and it remains clear that individual forms of action were chosen at a much greater frequency than collective action.

This thesis raises the question of what the causes of this individualism are, and if this can be attributable to the rise in neoliberalism over the past 20 years. As was discussed in the first chapter, the work of Nairn and Higgins (2007, p.261) argues that to see the impact of neoliberalism in this group of children would be understandable, as, in their words, this generation has grown up with “the most intensive and comprehensive experiments in neoliberalism to take place...”. However they also state that neoliberalism is but one of the multiplicity of factors which influence decision making and political beliefs, and any finding of neoliberal attitudes must understood to exist within a multiplicity of beliefs.

The first chapter introduced the ideas of neoliberalism through the work of Tickell and Peck (2003) who argued that neoliberalism envisioned not only the downsizing of the nation-state, whose influence was to be replaced by the free-market, but also an accumulation of individual liberties that would occur from this. Cowen (1997) argues that this facet of neoliberalism is born from the discourse of classical liberal philosophy, which desires minimal government intervention in order to enhance the sphere of individual liberties for all. Neoliberalism therefore at its core is an individualist doctrine.

As was presented in the first chapter, this individualist doctrine can be seen in new methods and techniques which are designed to bring about a more environmentally sustainable planet. The notion of eco-consumerism, which asks individuals to make purchasing and non-purchasing decisions on the basis of their environmental effects (Peattie, 1992, p.118), is an example of this individualist shift. Eco-consumerism’s plea to make the personal sphere political is an example of a doctrine which seeks to bring about political change largely through individual, rather than collective action.

Chapter two illustrated the methods through which these individual techniques of political change are being emphasised and supported by the current government. The Ministry for the Environment's 'Climate Change solutions' (Ministry for the Environment, 2007, p.10) document informs us that "all New Zealanders can play a part in responding to climate change" through purchasing energy-efficient light-bulbs, using more effective insulation in our homes and by cutting down on fossil fuel consumption. To help further educate New Zealanders schemes such as *4 Million Careful Owners* and *EnergyWise Homes* have been created in order to give the information necessary for ordinary people to mitigate and adapt against environmental ill through their own individual actions.

The second chapter also gives examples of how neoliberalism manifested itself in public policy macro changes and discussed the extent to which these changes might in turn influence children's attitudes towards the environment and climate change. Firstly, the theories which underpinned the neoliberal reforms, such as Agency Theory, TCE and NPM, were explained to illustrate the overarching theories which expanded into non-economic fields of government rule. The examples of environment and education policy were then discussed to present how this neoliberal rationality has embedded itself in two areas which will affect children.

Environmental policy was discussed in relation to how it has been shaped by the neoliberal reforms, and how these changes have shaped the path which climate change mitigation and adaptation has followed. Documents such as the RMA, which were embedded with a certain market-rationality (Memon, 1993, p.120), paved the way for latter market tools such as emissions trading schemes to combat climate change. Education reform was also discussed in the second chapter. Although the main impacts of education reform were on the structure of the education system, changes were also implemented in the curriculum which was taught. This chapter emphasised the contested nature of national curriculum, which is exhibited overseas in the debates over climate change education and in New Zealand with the enviro-schools project. It also helped illustrate how neoliberal ideas can become rooted in the systems in which our youngest citizens are taught (Mutch, 2001).

The third chapter argued, through the notions of Foucauldian governmentality and Gramscian hegemony, that this shift in government policy towards actively promoting individuals to take responsibility for themselves is the natural evolution of neoliberal rule. This is summed up in Rose's (1996, p.45) statement that neoliberal governments:

...become dependent upon devices (schooling, the domesticated family, the lunatic asylum, the reformatory prison) that promise to create individuals who do not need to be governed by others, but will govern themselves, master themselves, care for themselves (Rose, 1996, p.45).

Governmentality theorists would argue that techniques such as eco-consumerism and the governments self-help strategies towards climate change, are just as much an extension of government rule as a removal of government regulation. To operationalise how theories such as governmentality are reflected upon in the statements our participants made, the work of Hajer (1995), which was mentioned in the third chapter, is helpful. Hajer helps illustrate how a 'story-line' of concepts can thread itself through various discussions. In our focus groups we could argue that these individualist techniques are expressed through the 'story-line' weaved by children in regards to climate change. This further illustrates how neoliberalism can implement itself in the beliefs and attitudes of our participants by "*making the rationality the condition of their active freedom*" (Burchell, 1996, p.30).

In light of the results reported in chapter five I now consider whether neoliberal rationality, that individuals rather than collectives should be the focal point of political action, can be observed when children emphasised individual mitigation techniques as opposed to collective? The conclusions can not be definitive.

Adelson and O'Neil (1966) claim that due to childhood development before the age of 13 some children find it hard to imagine the societal consequences of political actions and therefore personalize politics. Therefore, the perceived political bias towards individualized political action observed in this study may in fact be part of natural child development processes.

Other explanations, such as Raymond Boudon's theory of socially situated rationality (Boudon, 1989), may also help explain outside of a Gramscian or Foucauldian theory why children have individualized political behaviour. Boudon would prefer to argue that socialization and limited social perception could cause beliefs to be moulded outside of political manifestos. People in Boudon's eyes are rational actors, and if people appear to be acting irrationally then this is because they are incapable to perceive actions outside of their own limited perspective.

Both of these theories provide plausible explanations of the observations reported in this thesis. Although such studies could point to forces outside of the hegemonic rise of neoliberalism to explain individualized political behaviour in children, I believe there is still enough evidence to suggest that neoliberalism could be a significant cause of this behaviour in our participants. However, further research would need to be conducted in order to expand on these early results.

6.3 *Key findings: Efficacy and individual mitigation techniques.*

As was briefly discussed in the last chapter, there was a dichotomy between the focus groups who believed that they could create a lasting and significant impact in combating climate change by using individual mitigation techniques, and those that thought they could not. This split occurred between three groups who emphasised the power of individual mitigation techniques and one group which believed there were barriers to children's individual deeds.

Three of the participants in the second 'Rural' focus group understood the limitations of their age and position in society in being able to bring about significant change. These limitations, such as not being able to engage directly in politics or being able to cut-down on their own carbon emissions, are understandable ones. However, three of the other focus groups insisted instead that children were an effective focal point of climate change mitigation.

This self-belief to shape a more environmentally sustainable future through individual action is compelling. As was illustrated in the last chapter, it appears that not only are the actions children suggest individualized but their belief is that these individual actions alone can help alleviate this global environmental crisis. This illustrates not only a level of internal efficacy by being able to show an ability to understand complicated environmental issues, but more importantly high external efficacy in regards to the belief in their own actions being able to shape an environmentally sustainable future.

However, as was argued in first chapter the techniques to mitigate climate change which are proposed by neoliberalism may not be the most effective ways of dealing with this crisis. Eco-consumerism as we saw placed the responsibility of environmental degradation onto the citizen, which therefore pits "individuals against global institutions to solve global problems" (Seyfang, 2007, p.7). The conclusion this led me to was that this would be an ineffective way of dealing with climate change because, as Maniates (2002, p.45) argues, when we

individualize environmental problems such as climate change the institutions, political power and ways of collectively shifting society are ignored and therefore do not necessarily adjust to the issue.

Chapter two also argued that techniques such as free-market environmentalism, which attempts to address climate change mitigation through the market-place, may be less effective than its advocates assume. However, free-market solutions such as the emissions trading scheme which is being currently implemented by the Labour government are seen as the most important government backed mitigation schemes. Such projects simply reinforce the concept of the authority of the free-market and its ability to price and deal with negative externalities such as greenhouse-gas emissions.

Given the criticisms of neoliberal solutions to climate change, is it desirable that members of this next generation, who believe they can be highly efficacious in tackling this problem, are reflecting neoliberal rationality? If the individual strategies these young citizen's favour are not able to provide the wide-scale global changes required to lower emissions to healthy levels then this trend may present a worrying glimpse of the future.

6.4 *Limitations and areas for further research.*

Although I argued in chapter four that this research was best suited to a qualitative nature of investigation, there were still several limitations to this method of inquiry which I shall mention here. Firstly, as discussed in that chapter, my results are not able to be generalized outside of the groups that participated in this study. What we can argue from our findings is that our participants appear to reflect neoliberal thought in the ways from which they individualize political behaviour, but it is a much larger step to generalize this argument for the entire child populous.

Secondly, this inability to make generalized statements from our findings is in part due to the time and scale constraints which are inevitably associated with this study. Due to the limitations of the Masters thesis I was unable to gain either a cross-section of New Zealand children or a large enough depth of results. To expand on this research I believe a mixed qualitative and quantitative approach would be suited in which quantitative surveys are used in order to test the generalisability of the findings which are gained through more in-depth qualitative study (Punch, 2005).

Thirdly, although I believe the age range which was used for this thesis was important, assessing the beliefs of older children and young adults (born on or after 1984) can also help us understand more clearly the neoliberalisation of young New Zealanders. By targeting a wider area of the neoliberal generation it can be better assessed whether the notions of individuality in political decision making exist not just in the very young, but also possibly in young adults and those of voting age. However, as stated earlier in this thesis, due to the low amount of work which has examined childhood attitudes in New Zealand (Taylor et.al, 2006), this thesis presents a gap in knowledge which will no doubt be helpful to future researchers.

6.5 *Methodological reflections.*

As was argued in chapter four, embedding ourselves in the communities which were studied is important for bringing about results in which we can understand the cultures we examined. As Bishop and Glynn (1996) and Benhabib (2006) both argued the ability to ‘somatically’ locate ourselves within the communities which are being studied can help the research avoid errors of misunderstanding which may occur with studies which not embedded in the community.

In all the three schools in which participants were garnered for this study I became embedded in the community to some degree. With two of the schools existing in areas I had spent my entire life, and the other being located in the area in which my family hails from, I was already to some extent an insider in these communities. Furthermore, I had completed focus group research independent of this study already at all three of the schools, which made my role as the supervisor of the focus groups a known one with the children. I had also helped with extra curricular activities within the schools, helping two groups to create a radio show on climate change, setting up a school council at another and helping and participating on field-trips to environmental waste sites with another.

This contact with the community and those who participated, I believe, led to richer and nuanced results than if I had simply engaged with the children as an outsider. By being a figure which was not totally foreign to the participants, I was able to create a more relaxed atmosphere which allowed for a freer flow of information from the children to myself. This helped eliminate, to a degree, some of the problems (Krueger, 1988, p.46) with focus group

interviews such as having more control over the participants and creating an invigorating discussion. I believe had I not engaged in the communities in these ways the results of the focus groups may have been far less rich.

6.6 *Public policy implications.*

As was presented in the second chapter, I believe that we should not abandon the techniques of traditional regulation in favour of a purely market based system, and instead we should focus on what tasks are appropriate for a market system (Funk, 1992, p.512). This thesis has taken a critical reflection of these market-based initiatives, arguing that by themselves they will be ineffective at bringing about the large decrease in greenhouse gas emissions which are required to stabilise climate conditions. However, much like Funk, I feel that now is not the time to decry market-based initiatives solely in favour of more collective or governmental based action.

As we have seen, the participants of this study were very concerned about the future well-being of the climate, and saw themselves as a focal point of effective mitigation. The individual techniques which the children argued we should all deploy, such as increasing our recycling, using less emissions intensive transport and so on are all helpful in the elimination of greenhouse gases and reducing energy consumption more generally. What is also encouraging is that the children understand not only the causes of climate change, but they also are prepared to be active in engaging with ways they believe can help.

For theorists such as Andrew Dobson (2005), this enthusiasm of children towards environmental sustainability in the private-sphere represents a positive trend. Although he agrees that private action by itself is insufficient, he argues that it is obvious that in regards to environmental politics that individual actions do have importance because “the virtues necessary to meeting those [environmental] obligations are analogously and actually present in the types of relationship we normally designate as ‘private’” (Dobson, 2005, p.605).

However, as was argued in the earlier chapters neoliberalism in New Zealand represents a modern day hegemony, a set of ideas which have come to dominate the political landscape. And as was noted, when a hegemony exists it influences people’s behaviours by creating incentives and disincentives for certain types of behaviour whilst at the same time creating “one concept of reality [that] is dominant, informing with its spirit all modes of thought and

behaviour” (Femia, 1981, p.24). This therefore indicates that the attitudes and beliefs which are fashioned by a hegemony such as neoliberalism, are difficult to shape in opposite or different directions.

The acceptance of neoliberal modes of thought and the reluctance of government based strategies can be seen contemporarily in New Zealand society in the failure to implement a carbon tax. What would have been one of the world’s first carbon taxes has subsequently been replaced, as we saw in chapter two, by the emissions trading scheme which has so far seen less opposition from powerful forces such as the business and farming communities¹³. It appears that traditional modes of legislation even when attempted by ruling governments have contemporarily failed.

Neoliberal innovations therefore are thriving in New Zealand society, and even with the existence of contesting ideas, these are being rejected. Recently the Australian government has put in place a plan to ban incandescent light bulbs to replace them solely with more energy efficient fluorescent light-bulbs (BBC News, 2007). This proposed legislative move will eliminate 4 million tonnes of greenhouse-gas emissions from Australia’s output by 2012. The move will represent a 70% per-cent drop in lighting power-usage which accounts in Australia for 12% of total household emissions and 25% of total commercial emissions.

Such legislation can bring about an almost immediate and large scale drop in emissions. Whereas eco-consumerists would argue that we should choose to move to energy saving light-bulbs, the Australian federal government has superseded this choice by making it compulsory. This limiting of personal freedom through legislative action is by its nature appositional to the neoliberal hegemony, yet it highlights how through simple collective actions emissions can be reduced drastically.

Although the power to take responsibility for one’s own emissions footprint is an important and significant step towards creating a more sustainable future, these changes must come hand in hand with government legislation which effectively tackle the causes of these emissions. Legislation such as the banning of incandescent light-bulbs strikes at the very heart of the source of rising emissions, rather than attempting to mould the consumer behaviour of the modern citizenry. Although such legislation represents a move away from

¹³ However very recently (05/05/08) objections to the Emissions Trading Scheme have been made due to the impact it will have on already rising fuel costs. Climate change minister David Parker has insinuated that some of the aspects of the Emissions Trading Scheme may be delayed in order to ease the burden of rising fuel prices on New Zealand consumers. ‘Govt rethink on emissions’ <http://www.stuff.co.nz/4509752a6009.html>

neoliberal tenets such as an emphasis on individual liberties and low government interference in the free market, such moves will be necessary in order for New Zealand to reach the lofty goal given to it by Helen Clark (New Zealand Government, 2007) of being “the world’s first truly sustainable nation...”

6.7 *Conclusion.*

Neoliberalism has been presented as a political project which encourages the values of individualism, increased negative liberties and the power of the free-market. These values can be seen to underpin the techniques of climate change mitigation which are supported by the current Labour government. These two separate political projects (neoliberal policy reform and climate change) have met in recent years, and the power of neoliberal discourse can be seen in the ways our youngest citizens choose to fight climate change.

Our participants expressed in a majority a confidence in the power of the individual, rather than the collective, to be able to solve increasing greenhouse-gas emissions. There may be many reasons for this emphasis on individualism – reasons that go beyond the hegemonic impact of neoliberalism on New Zealand society. However, this study observed that most of these children firmly believed that we can help create a more sustainable planet by everyone taking responsibility for their own pollution. However, as I have argued in this thesis, although these precepts are positive they can only be seen as one step in the process.

In order to effectively cut down on emissions, action must be taken to limit the origins of greenhouse gas emissions as opposed to simply waiting for behaviour changes and the subsequent market reactions to these changes. When dealing with an issue of such importance in which time to act is a scarce commodity, large scale government intervention must lead the way.

The high efficacy of those participants who saw individual actions as being the focal point of climate change mitigation presents a risk for future policy makers. If a great deal of optimistic emphasis continues to be placed on voluntary, personal actions towards mitigating climate change at the expense of local and global political regulation, emissions will surely not drop at a fast enough rate to cause no further damage to the climate systems.

Appendix I: Points of discussion for focus groups.

1. What is the group's view of climate change? Do you believe that it is happening?
2. What do you think are the causes of climate change?
 - a) What pollution do you think is the most serious in regards to climate change?
3. What effects does climate change have on you now/will it have on you in the future?
4. Who is responsible for these causes of climate change?
5. What are some things that can be done to help stop climate change?
6. Who does the most in your community to help with climate change?
7. What can kids your age do to help with climate change? Can you do as much as adults?

Appendix II: Information sheet for parents/caregivers and pupils.

University of Canterbury

Youth political Attitudes and participation

Department of Political Science and Communication

Information for Parents/caregivers and pupils

Dear (name of student) and guardian

I am writing to seek permission to interview 12 year 8, 7, 6 and 5 pupils and their parents from (insert school here)

I am a Masters student at the University of Canterbury in the School of Political Science and Communication. My studies will be undertaken within the Voices Votes and Visions Youth Politics Research Group which is led by my supervisor Dr Bronwyn Hayward. My study is called 'Young New Zealanders, Neoliberalism and Climate Change Discourse'. This project looks at the attitudes of New Zealand children towards their environment and climate change, what they think can be done about climate change and what can be done to prevent it.

If your school agrees to participate then up to six children would be chosen randomly by their class teacher to enter into a focus group discussion. The focus group would be 40 – 50 minutes long and would be held at school (normally in your library or a room the teacher allocates) on a day and time that is suitable for you and the class teacher. The focus group would be tape recorded but not videoed.

Pupils are guaranteed the right to withdraw from the project at any time, including withdrawal of any information provided in interviews. I am happy to give children a chance to read any comments recorded about what they said and to talk about the results.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation. To ensure confidentiality, no child or school name will be used in any publications.

I can be contacted at university on extn 8676, by cell phone on (insert number here) or at home on (insert number here).

My supervisor can be contacted at work on (insert number here) extn 6113 or home, (insert number here) or by email at (insert email here).

I look forward to learning about how children understand their environment and the way it is changing and what we can do about it. I am happy to come and talk to your school community about the results of my research. I would also welcome discussion of any concerns you may have about participation in this project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

Appendix III: Information sheet for principals.

University of Canterbury

Department of Political Science and Communication

Information for Principals and Chair of Board of Trustees

Dear (insert principal and board of trustees here)

I am writing to seek permission to interview 12 year 8, 7, 6 or 5 pupils and from (insert school here).

I am a Masters student at the University of Canterbury in the School of Political Science and Communication. My studies will be undertaken within the Voices Votes and Visions Youth Politics Research Group which is led by my supervisor Dr Bronwyn Hayward. My study is called 'Young New Zealanders, Neoliberalism and Climate Change Discourse'. This project looks at the attitudes of New Zealand children towards their environment and climate change, what children think about climate change and what they think can be done to prevent it.

If your school agrees to participate then up to six children would be chosen randomly by their class teacher to enter into a focus group discussion. The focus group would be 40 – 50 minutes long and would be held at school (normally in your library or a room the teacher allocates) on a day and time that is suitable for you and the class teacher. The focus group would be tape recorded but not videoed.

Pupils and parents/caregivers are guaranteed the right to withdraw from the project at any time, including withdrawal of any information provided in interviews. I am happy to give children a chance to read any comments recorded about what they said and to talk about the results.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation. To ensure confidentiality, no child or school name will be use will be used in any publications.

I can be contacted at university on extn 8676, by cell phone on (insert number here) or at home on (insert number here).

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I look forward to learning about how children understand their environment and the way it is changing and what we can do about it. I am happy to come and talk to your school community about the results of my research. I would also welcome discussion of any concerns you may have about participation in this project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

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